City of Charles Sturt

# Royal Park LATM 

# Final Report 

Principal Contacts

Ben Vardon
Paul Simons

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Document History and Status

## Document History and Status

| Rev | Description | Author | Rev'd | App'd | Date |
| :--- | :--- | :--- | :--- | :--- | :---: |
| A | Draft for review by Council | BJV | PCS | PCS | $16 / 01 / 06$ |
| B | Final Report for Community <br> Consultation | BJV | PCS | PCS | $10 / 02 / 06$ |
| C | Final Report for Council Review | BJV | PCS | PCS | $28 / 04 / 06$ |
| D | Final Report | BJV | PCS | PCS | $05 / 05 / 06$ |

Introduction

## 1. Introduction

In March 2005 Council engaged Tonkin Consulting, in conjunction with Dorrestyn and Co ., to undertake a review of traffic and road safety conditions in each of the following five areas:

- Athol Park
bounded by Hanson Road, Ninth Avenue, Grand Junction Road and Glenroy Street
- Royal Park
bounded by West Lakes Boulevard, Frederick Road, Old Port Road and Tapleys Hill Road
- Croydon / West Croydon / Kilkenny bounded by David Terrace, Torrens Road, South Road and Port Road
- Woodville West bounded by Findon Road, Trimmer Parade, and Alma Terrace
- Woodville South
bounded by Ledger Road, Port Road, Crittenden Road and Findon Road
This report specifically addresses the ROYAL PARK area. Separate reports have been prepared for each of the other areas.

The processes adopted in undertaking each of the reviews have been similar to ensure a consistency of approach and assessment within each precinct. The processes have varied through the involvement of Residents' Associations in some areas (Athol Park and Woodville South).

This report presents the findings and recommendations for the Royal Park precinct based on the Draft Report for Consultation (endorsed by Council in February 2006), together with responses from the subsequent community feedback process.

This final report is submitted for Council approval to guide future traffic management within the Royal Park area.

Study Area

## 2. Study Area

The Royal Park precinct subject to this review is shown below. Arterial roads (West Lakes Boulevard, Tapleys Hill Road, Old Port Road and Frederick Road) were excluded from the study which was focused on traffic conditions within the local area. Notwithstanding, consideration has been given to traffic management along the arterial roads where safety or accessibility on the local streets is adversely influenced.


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## 3. Method

### 3.1 General

A number of steps have been followed in order to qualify and quantify factors affecting the road networks within the study area, including public consultation, site reviews and the assessment of available traffic and crash data. This generic approach to the LATM process was adopted in each of the five precincts reviewed.

### 3.2 Call for Public Submissions

Leaflets were distributed to every letterbox in the area by hand during the period 20 25 June 2005. The leaflets invited submissions by residents in relation to traffic management and road safety issues in the respective local areas. They were drafted and formatted in accordance with Council's requirements for public consultation.

Registrations of Interest were also sought for residents to represent the local community in each area, with the exception of Athol Park where a Residents Association already exists. The purpose of the proposed Residents' Committees was to assist the consultant team in the process of identifying key issues, possible treatments and possible priorities. A copy of the community circular is included in Appendix A. A minimum of five registrations from each area were sought for the formation of committees.

### 3.3 Review of Traffic Data

Traffic classifier surveys were commissioned for locations identified by a review of resident responses, and through a knowledge of the traffic environment in certain streets. Surveys were carried out at 40 sites throughout the five LATM precincts. Mapinfo (GIS) was used to present the results graphically (refer Section 4).

To supplement these surveys, the results of intersection turning count surveys carried out previously by the Department of Energy \& Infrastructure (DTEI) were obtained and examined.

In a few instances, traffic surveys previously carried out by the Council were also considered.

Method
Method

### 3.4 Collision Data

Details of the road collision incidents reported to the SA Police during the period 1999 - 2004, were obtained from DTEI. The data was analysed to an extent to validate the site-specific concerns of residents. Sites were checked for 'blackspots' or areas with a consistently high number of crash occurrences.

### 3.5 Review of Background Documents

The draft Traffic Management Strategy prepared by QED (Draft Traffic Management Strategy, QED P/L, July 2005) provides weighted criteria for the prioritisation of the precincts for treatment, within the City of Charles Sturt.

The QED strategy provides a Classical Road Hierarchy and various intervention thresholds, based on traffic speeds, volumes, crash statistics, activity generators and others.

The directions set by the strategy have been taken into account in the preparation of our recommendations for the five areas.

The revised Austroads Part 10, Local Area Traffic Management, provides important theory and philosophy behind a range of traffic management devices, and the implications of their use. For example the use of a certain treatment in one street can lead to a displacement of traffic to another adjacent untreated street.

Measures as simple as painted parking lanes can narrow the effective carriageway width of a street and hence slow traffic. Part 10 is useful as an overall guide to the effectiveness of traffic devices, and when and when not to use them.

### 3.6 Site Investigations

The areas were thoroughly reviewed by vehicle. Some road widths have been checked with a pedometer to confirm that certain devices can be implemented should the consultation process lead Council to that stage.

The locations of existing traffic management devices have been documented, with a view to forming treatment recommendations which compliment existing devices such as roundabouts, indented parking and plateaus.

The site inspections, undertaken from the perspective of a motorist, are important in forming an overall 'feel' for each site, and where speeding is likely to occur.

Method

The principles applicable to Network Road Safety Auditing were used to some extent at the sites, for example:

- Noting friction between parked vehicles / travelling vehicles in particular streets;
- Noting the environments which are conducive to high speeds, for example, long straight streets with no interruptions to the forward sight distance;
- The provisions for vulnerable road users such as cyclists and pedestrians;
- The traffic mix;
- A check on land use conflicts, for example abutting residential and industrial zones.


### 3.7 Development of Concept Options

Based on the information collated from the initial community consultation process, a draft traffic management plan was developed through consultation with Council's administration. The Draft Plan was endorsed by Council for community review in February 2006.

### 3.8 Community Feedback

The Draft Plan was subsequently released for community feedback. All residents who responded to the initial community consultation phase received a copy of the draft recommendations and a pro forma response sheet. A public notice was also placed in the Messenger paper notifying the broader community of the Draft Plan, available at Council's office, and on the Council web site.

Overall, the plan was well received and the majority of responses were in favour of the recommendations contained within the report.

Note that the recommendation in Section 5.2, regarding the South Australian Housing Trust, was formulated subsequent to the preparation of the Draft Plan, and hence forms an additional recommendation which was not included in the Draft Plan.

Further analysis of the responses is contained within Section 6 below.
A copy of the community questionnaire is also included in Appendix A, along with the initial letter to residents.

Findings

## 4. Findings

### 4.1 General

Existing traffic control devices include three roundabouts, one on Poplar Street and two on Pine Street, employed to break up the long straights along Wattle Avenue and Crown Terrace. Safety bars and kerb realignments have been implemented at the junction of Crown Terrace and Lowe Street.

Parking in the southern area of Royal Park is influenced by the regular events occurring at AAMI Stadium, creating congestion. In particular the service road (North Parade) running parallel to West Lakes Boulevard does not seem to operate efficiently during football events due to obstructive parking.

### 4.2 Factors Outside LATM

Issues relating to lighting levels, drainage and footpaths were frequently identified, and relate more to maintenance than to LATM. Such issues can mostly be addressed through municipal maintenance cycles, but are included in this report for Council's benefit.

Some issues, frequently identified, relate to driver behaviour which is beyond the scope of traffic engineering, and which should be addressed from a social or law enforcement perspective. Burnouts, or driving over medians, or excessive speeds greater than $100 \mathrm{~km} / \mathrm{hr}$ are more indicative of demographic / socio-economic / social issues and are not symptoms of deficient traffic control planning.

An avenue open to Council to address these types of issues is Crime Prevention Through Environmental Design (CPTED), for example better lighting, tree trimming and the operation of Neighbourhood Watch.

In general, the engineering and non-engineering issues have been separated, and only the former has been addressed in this report.

### 4.3 Summary of Residents Responses

Approximately 1555 community circulars were distributed throughout Royal Park in June 2005. 84 leaflets were returned, representing a response rate of $5.4 \%$. The response rate is considered good for a public consultation of this type.

Findings

There were insufficient Registrations of Interest for a Residents Committee in Royal Park, given that less than five registrations were received. The community has responded well to the consultation process however.

The following table summarises the resident responses. Locations that were identified by more than one resident have been highlighted.

### 4.3.1 Streets

## Allan Street

- Speeding and excessive noise
- Generally poor lighting and footpaths
- Illegal motorbikes emerging on weekends (scale model 'chopper' replicas which are not permitted to be registered or used on public roads)


## Alexander Street

- Speeding cars and motorbikes
- Too many cars parked in street

Amos Way

- Improve parking outside Hendon Primary School


## Cedar Avenue

- Motorbikes on footpaths
- Speeding putting primary school children at risk
- Blind corner at Hendon School end where speeding occurs
- Inappropriate parking


## Clovelly Avenue

- Restrict heavy vehicles
- Speeding and donuts


## Cooke Crescent

- Cars and motorbikes on Richard Russell Reserve
- Burnouts
- Footpaths subsiding


## Crown Terrace

- Soccer training causes parking problems, speeding vehicles


## Dixon Street

- Speed and volume too high
- Realignment of corner of Dixon Street / Tapleys Hill Road makes it hard to enter Dixon Street


## Dover Street

- Football parking creates problem
- Speeding and high traffic volumes


## George Street

- Excessive speeding near church
- Illegal motorbikes being ridden (scale model 'chopper' replicas which are not permitted to be registered or used on public roads)
- Parking limited during football

James Street

- Speeding


## Kingston Avenue

- Speeding and burnouts near reserve area
- Rat run between Frederick Road and Tapleys Hill Road
- Traffic volumes are high


## Lowe Street

- Speeding problem
- Repair footpaths adjacent reserve
- Parked cars make effective roadway narrow


## Frederick Road

- Speeding problem
- Parking safety could be improved with indents


## Marion Terrace

- Requires street trees


## Maple Avenue

- Burnout problem (bikies)
- Trees drop leaf litter
- Parking problem during football


## McKenzie Court

- Being used as a rat run
- Traffic noise and levels during football


## Myrtle Street

- Road requires maintenance
- Road carries too much traffic
- Road is a racetrack, consider roundabouts to control speed


## North Parade (service road for West Lakes Boulevard)

- Sight distance limited by shrubs at Tapleys Hill Road end
- Leaf litter and storm water is slow flowing
- Requires prevention of angle parking
- One way system during football not working well
- Football parking restricts two-way traffic flow, altercations between 2-way traffic


## Oak Street

- Speeding


## Palm Avenue

- Poor footpaths, uneven and cracked
- Speeding and traffic volume
- Wide nature strips invite inappropriate parking

Pine Street

- Speeding and noise, football traffic


## Poplar Street

- Speeding


## Risely Avenue

- Speeding
- Parking problem during football
- Footpaths raised or cracked
- Sharp bends near primary school
- Install speed humps
- Block Amos Way off at the Risely Avenue end to prevent undue traffic volumes


## Royal Terrace

- High volumes, may be a rat run
- Speeding motorbikes and hoons
- Too much commercial traffic


## Tapleys Hill Road

- Constant speeding
- Trucks using airbrakes
- High level of commercial traffic
- Bike riders demanding priority


## Wattle Avenue

- Speeding problem
- Hoon drivers, antisocial behaviour
- Noise of bikies


## West Lakes Boulevard

- General speeding

Wilson Street

- Speeding problem and burnouts
- Right angle bend in Wilson Street causes danger for house opposite


## Wright Street

- Speeding problem


### 4.3.2 Intersections

## Cedar Avenue / Poplar Street

- burnouts


## Forest Avenue / Crown Terrace

- Drivers not aware of give way requirements


## Lowe Street / Crown Terrace

- Corner is sharp, poor design
- Do something with alignment

James Street / Kingston Avenue

- Install roundabout


## Kingston Avenue / Durham Terrace

- Close T-junction here to prevent rat running


## Pine Street / Maple Avenue

- Accident problem - install a roundabout
- Cars failing to give way when entering Pine Street from Maple Avenue

Poplar Street / Palm Avenue

- Water ponding

Poplar Street / Wattle Avenue

- Flooding at roundabout
- Drivers driving over roundabout

Royal Terrace / Kingston Avenue

- Lacks prioritisation

Kauper Street / Wattle Street

- antisocial behaviour with motorbikes


## Tapleys Hill Road / West Lakes Boulevard

- speeding, near misses
- football traffic congestion
- burnouts

Tapleys Hill Road / Poplar Street

- excessively deep spoon drain

West Lakes Boulevard / Frederick Street

- Turn arrows for traffic


### 4.3.3 General Comments

Lighting

- Cedar Street requires better lighting
- Poplar Street lacks lighting
- Poor lighting in Wattle Avenue


## Bike facilities

- Lack of facilities for cyclists
- Lack of cycle lanes
- Bike lanes for Frederick Street


## Footpaths

- cracked in Poplar Street
- cracked in Wright Street
- uneven in Cedar Avenue
- cracked in McKenzie Court
- cracked in Dixon Street
- cracked in Dover Street
- raised in Allan Street between George Street and North Street
- Pave footpath around oval
- Cracked and raised in Cooke Crescent
- Pram ramp dangerously located on Frederick Road adjacent the Woodlake Shopping Centre

Line marking

- Clovelly and Wattle Streets require better line marking

Parking

- General parking congestion during football at AAMI Stadium
- Soccer activities cause parking congestion around oval
- Parking congestion in Cooke Terrace during events

Pavements

- Potholes in Frederick Road, Tapleys Hill Road, West Lakes Boulevard

Findings

Other Issues

- Carnegie Reserve requires pedestrian crossing near the soccer club
- Sort out street naming on Royal Terrace to Wright Street
- Bus shelter needed in Johnson Street
- Trees in Wattle Street require replacing
- No Parking signage (for events at AAMI Stadium) is ambiguous and could be better designed


### 4.4 Speed and Volume Data

Speed and classified volume data was collected during September 2005 in the following streets, to quantify the usage of the streets by different types of vehicles and to obtain a general appreciation of traffic patterns in the precinct.

- Risely Street
- McKenzie Court
- Kingston Avenue
- Palm Avenue
- Wattle Avenue
- Crown Terrace
- Durham Terrace
- Dixon Street

A summary of the data is included in Appendix B.
There are no instances of consistently high speeds recorded in Royal Park, apart from isolated instances of excessive speed. Speeds are generally at or slightly above the speed limit. There are no instances of unusually high traffic volumes.

Conventional devices such as speed humps, plateaus or roundabouts may therefore not be warranted.

Findings

### 4.5 Crash Data

Maps showing the location, type and severity of crashes in the precinct are included at Appendix C.

The main conflict points occur at 4-way intersections, and crashes are distributed fairly evenly at these points across the Royal Park area. Crashes within the area are generally minor.

Crashes on the boundary roads are higher in number and severity, as would be expected, and are generally clustered at signalised intersections and pedestrian actuated traffic signal crossings (PAC's). Boundary road crashes have limited implications for the LATM, are generally on DTEI roads, and are mostly not factored into our recommendations.

Listed below are locations within Royal Park with three or more reported collisions. This analysis is useful in determining locations where further investigation into accident causes may be warranted.

- Intersection of Oak Street and Cedar Avenue (6)
- Risley Avenue corner (4)
- Intersection of Myrtle Street and Cedar Avenue (4)
- Intersection of Maple Avenue and Myrtle Street (4)
- Intersection of Poplar Street and Cedar Avenue (3)
- Lowe Street (mid-block) (3)
- Intersection of Wright Street and Johnson Street (3)

The following tables summarise the 85 collisions that have occurred within the Royal Park area between 1999-2004 (excluding crashes which occurred on the boundary arterial roads).

The collision cost rates used to calculate overall costs were derived from average collision costs from what is regarded as the most authoritative reference [Bureau of Transport Economics (BTE), 'Road Crash Costs in Australia' - Report 102 (2000), Commonwealth Government of Australia]. These average costs include an allowance for such aspects as property damage, hospitalisation, pain and suffering, and lost productivity in the case of serious or fatal injuries. However, they do not consider the nature of individual incidents and this can have a significant influence on costs.

Findings

### 4.5.1 Royal Park Crash Summaries

| Severity | Count | Rate | Cost |
| :--- | :---: | :---: | :---: |
| Severe Injury | 1 | $\$ 408,000$ | $\$ 408,000$ |
| Injury | 13 | $\$ 13,776$ | $\$ 179,088$ |
| PDO | 71 | $\$ 5,808$ | $\$ 412,368$ |
| TOTAL | 85 |  | $\$ 999,456$ |


| Severity | Accident Type | Count |
| :--- | :--- | :--- |
| Injury | Rear End | 1 |
| Severe Injury | Right Angle | 1 |
| Injury | Other | 1 |
| Injury | Hit Parked Vehicle | 2 |
| PDO | Head On | 3 |
| PDO | Rear End | 3 |
| Injury | Hit Fixed Object | 4 |
| PDO | Side Swipe | 4 |
| Injury | Right Angle | 5 |
| PDO | Hit Fixed Object | 13 |
| PDO | Hit Parked Vehicle | 23 |
| PDO | Right Angle | 25 |
| TOTAL |  | 85 |


| Accident Type | Count |
| :--- | ---: |
| Other | 1 |
| Head On | 3 |
| Rear End | 4 |
| Side Swipe | 4 |
| Hit Fixed Object | 17 |
| Hit Parked Vehicle | 25 |
| Right Angle | 31 |
| TOTAL | $\mathbf{8 5}$ |


| Accident Year | Count |
| :--- | :--- |
| 1999 | 19 |
| 2000 | 11 |
| 2001 | 16 |
| 2002 | 15 |
| 2003 | 13 |
| 2004 | 11 |
| TOTAL | $\mathbf{8 5}$ |


| Day | Count |
| :--- | ---: |
| Thursday | 7 |
| Wednesday | 10 |
| Monday | 10 |
| Tuesday | 11 |
| Sunday | 10 |

Findings
Con't
Friday 18
Saturday 19
TOTAL

| Accident Hour | Count |
| :--- | :--- |
| 00 | 2 |
| 01 | 4 |
| 05 | 1 |
| 07 | 1 |
| 08 | 1 |
| 09 | 5 |
| 10 | 4 |
| 11 | 3 |
| 12 | 8 |
| 13 | 5 |
| 14 | 7 |
| 15 | 7 |
| 16 | 3 |
| 17 | 5 |
| 18 | 7 |
| 19 | 8 |
| 20 | 6 |
| 21 | 2 |
| 22 | 7 |
| TOTAL | 3 |

The number of 'hit parked vehicle' and 'hit fixed object' crashes is broadly commensurate with the narrowness of some road carriageways, and the number of vehicles parked on the narrow roads, particularly during events at AAMI stadium.

The provision of indented parking, for example, may help to reduce instances of crashes with parked vehicles.

The high proportion of 'right angle' crashes is indicative of the number of 4-way intersections in Royal Park, and many of these crashes may result from a failure to stand at Give Way controlled intersections. Any measures which can reduce approach speeds to such intersections, including basic measures such as clear signage and linemarking, may reduce these types of crashes.

In terms of crash severity, $84 \%$ of crashes have resulted in damage to property only, without personal injury. This may indicate that many of the crashes have occurred under fairly low speed conditions, as speed is typically a major factor in accident severity.

Findings

### 4.6 Summary of Key Issues

The key factors identified by residents for the precinct were as follows, in order of frequency:

- Speeding and anti-social behaviour
- Inappropriate parking
- Poor footpaths and pedestrian access
- Poor sightlines at intersections
- Lighting
- Drainage

The key issue raised by residents overwhelmingly relates to speeding traffic, particularly on the long straight north-south streets within the area. A secondary concern relates to burnouts and other forms of anti-social behaviour (refer to Section 4.2 for further discussion).

Public concerns, such as speeding, were raised repeatedly, and hence our findings are grouped under particular sub-headings rather than addressing the areas street by street.

Only the more notable issues relating to speeding and intersection geometry in certain streets have been addressed within this report.

Site investigations were mainly informed by residents' comments, and speed and volume data. In many cases, complaints of speeding and high volumes could not be substantiated with the data collected by traffic classifiers.

It should therefore be recognised that residents' responses are in some cases subjective and based on anecdotal evidence.

## 5. Discussion and Draft Recommendations

The following discussions and draft recommendations were prepared and released for community feedback.

### 5.1 General

With the exception of several specific sites, no significant traffic or road safety issues were noted in Royal Park during the course of the LATM study. Speeding has emerged as the main concern, however the speed surveys indicate isolated instances of excessive top speeds, rather than consistently high $855^{\text {th\% }}$ \%ile speeds. Typical 85 th\% ile speeds are within the $45-55 \mathrm{Km} / \mathrm{hr}$ range.

Excessive top speeds are in the $100-140 \mathrm{~km} / \mathrm{hr}$ range, and are indicative of some of the factors discussed previously in Section 4.2.

The draft QED Traffic Management Strategy (Refer to Section 3.5) specifies appropriate speeds of $40-50 \mathrm{~km} / \mathrm{hr}$ for local streets, however given that speeds are generally close to this range, treatments of a minimal nature may be appropriate, as opposed to traditional high impact measures of speeds humps, plateaus and slow points.

Speeding is generally seen as an issue on the north-south streets of Royal Park, such as Crown Terrace, Cedar, Wattle, Maple and Palm Avenues. $85^{\text {th }}$ percentile speeds are generally $5 \mathrm{~km} / \mathrm{hr}$ above the speed limit on these roads indicating that low key measures, such as treed kerb build-outs to create indented parking, may be more appropriate than the introduction of speed humps and further roundabouts.

Traffic volumes are generally considered to be well within acceptable limits on the streets in Royal Park, with figures recorded between 200 - 700 VPD.

The QED Study does not specify appropriate volumes for local roads, however 1200 - 1500 VPD is considered to be the upper limit for preserving residential amenity. Alternatively, a traffic volume of 3000 VPD has long been regarded as the 'environmental capacity' of a residential street, beyond which traffic conditions are generally regarded as intolerable.
fnginffrima

## Recommendation

High impact treatments for Royal Park, for example speed humps, plateaus and further roundabouts, are not considered necessary, as reasonably low $85^{\text {th }}$ \%ile speeds and volumes were recorded.

## Recommendation

Low impact treatments, such as streetscape improvements, for example further trees, in conjunction with indented parking (see Rosetta Street, West Croydon), may bring about speed reductions in line with the speeds recommended in the draft QED Traffic Management Strategy.

The road network in the east of Royal Park comprises straight sections of road, arranged in a grid pattern to varying degrees. In some cases speeds are naturally regulated through the presence of intersections under 'give way' control, or by 90 degree bends, or simply by the narrowness of the streets.

Some of the road configurations in the vicinity of Cooke Crescent form Y-junctions with ambiguous Give Way requirements, which are discussed below.

Certain safety issues were noted at specific sites within Royal Park, generally at intersections. Some of these issues may not relate directly to LATM but relate to road safety. These are discussed in detail below, and should be subject to further review. Initial recommendations for treatment are provided as a guide.

### 5.2 South Australian Housing Trust

A meeting was held with Michael Kourakis of the South Australian Housing Trust (SAHT) on 28 March 2006, to assess plans for Royal Park, and at which the SAHT was made aware of the publication of Revision B of this report on Council's website.

The SAHT is in the process of formalising development plans for its land in the south of Royal Park, which may be of relevance to this Local Area Traffic Management Plan. Although some of the development is already underway, the plans are generally confidential and hence only a broad outline of the implications is contained within this report.

The SAHT owns land within the area bounded by North Parade, Frederick Road, Anne Street and McKenzie Court / Risely Avenue, and has facilitated the clearance of several large tracts of land within the area in preparation for building work. It is the general policy of the SAHT to undertake developments which increase the density of existing accommodation and housing by up to $50 \%$. Such developments may then lead to an increased generation of local traffic in the area.

Discussion and Draft Recommendations

Council roads likely to be affected are;

- North Parade (increased vehicle access and egress into one of the developments and increased commercial vehicle activity, for example deliveries and tradesmen)
- Anne Street (increased access / egress points and through traffic)
- Amos Way (increased access / egress points and through traffic)
- Allan Street (increased through traffic)
- Arnold Street (increased through traffic)
- Crighton Avenue (increased access / egress points and through traffic)
- Risely Avenue (increased through traffic)

Additional parking requirements are to be accommodated within the sites, however it is anticipated that there will be additional numbers of vehicles travelling or parked in many of the streets in the southern third of Royal Park as a result of the developments.

## Recommendation

Council may wish to initiate formal discussions with the South Australian Housing Trust as soon as practicable in order to assess the likely impact of SAHT developments on traffic levels and movements in Royal Park.

### 5.3 Streets

### 5.3.1 North Parade

This section contains recommendations which relate to the context of existing site conditions only. It should be noted that future SAHT developments may impact upon the environment in and adjacent North Parade, which may then require alternative treatments to be considered for this road.

North Parade currently operates as a two-way service road running parallel to West Lakes Boulevard, however the carriageway width is 5.5 m , so that when vehicles are parked on the northern side, two-way flow can be temporarily impeded. Parking on the southern side is currently banned.

Discussion and Draft Recommendations


North Parade facing east

This two-way arrangement has allegedly led to altercations between drivers over who has right of way around a parked vehicle. The actual mode of operation of North Parade is also unclear when entering the road from West Lakes Boulevard, whether one or two way.

## Recommendation

Consider implementing one-way conditions on a permanent basis along North Parade (eastbound) to improve traffic flow (with the exception of the two cul-de-sac ends). Retain all parking to the northern side of the road. Sign the road appropriately particularly at the two entry points along the western half of the road.

## Recommendation

Vegetation should be trimmed back at the two exit points onto West Lakes Boulevard as sightlines to oncoming traffic are slightly restricted by the height of the vegetation.

There is a public perception that speeding is occurring in Risely Avenue on the bend adjacent the Hendon Primary School. This perception is not borne out by the data, which indicates $85^{\text {th }}$ percentile speeds are approximately $46 \mathrm{~km} / \mathrm{hr}$. There are some isolated instances of higher speeds occurring outside of school hours, with a top speed recorded of $110 \mathrm{~km} / \mathrm{hr}$. Physical intervention in the form of traffic devices at this stage should not be necessary

Warning signage with advisory speed plates could be considered on the approaches to the bend outside the school.

Discussion and Draft Recommendations


Risely Avenue facing east

## Recommendation

Install warning signage on the approaches to the bend on Risely Avenue adjacent the Hendon Primary School, and conduct a ball bank speed survey to determine an appropriate advisory speed for the bend.

### 5.3.3 Cedar Avenue

This road is long and straight (approximately 1300 m in length) with 4 Give Way hold points along the road at intersecting side roads. These may help to regulate speeds to an extent, however it is acknowledged that there are isolated instances of excessive speed.

The primary concern of residents on this road is speeding traffic, and the potential danger for primary school students attending the Hendon Primary School at the southern end of Cedar Avenue. The school lies on the outside of a bend, limiting sightlines for parents and children north into Cedar Avenue.

The carriageway is fairly narrow (7.5m). Parking may restrict two-way traffic flow when two cars are parked on opposite sides of the carriageway, and is perceived by residents as obstructive parking.

### 5.3.4 Wattle Avenue

Wattle Avenue is also long and straight (1200m in length). Residents have raised concerns relating to speeding, which are similar in nature to the concerns raised for Cedar Avenue. Risely Avenue forms the southern continuation of Wattle Avenue, and the Hendon Primary School lies on the outside of the bend in Risely Avenue (refer to Section 5.3.2 for further discussion).

Discussion and Draft Recommendations

There are also complaints of anti-social behaviour (refer to Section 4.2) relating to noise, burnouts and drug use. Such factors cannot be addressed through traffic engineering and will require the assistance of SAPOL and other agencies.

Many of the complaints arising from the consultation relate to the presence of a bikie club in the vicinity of Wattle Avenue. Again many of the issues stemming from this cannot be addressed through the context of LATM.

### 5.3.5 Maple and Palm Avenues

Maple Avenue is long and straight with the potential for high speeds, however there are 3 Give Way hold points along the street which may serve to regulate speeds. During the football, parking congestion seems to be occurring, leading to difficulties in maintaining traffic flow (refer to Section 5.5 for further discussion).

The section of Maple Avenue between Poplar Street and Myrtle Street is a bus route (Refer to Section 5.7 for further discussion). Measures for Maple Avenue should therefore not include devices causing any vertical deflection, or undue horizontal deflection. The required swept path of buses should be factored into any design work.

The verges along Palm Avenue are 1-2m wider than those of surrounding streets, and parking may be taking place over the verges due to the additional width, which is undesirable due to damage to the verges and reduction in sight distance to and from driveways.

### 5.3.6 Treatments for the north / south avenues

Although speeding in these streets has been perceived as an issue, the data indicates 85 th\%ile speeds of between 52 and $56 \mathrm{~km} / \mathrm{hr}$. As discussed in Section 5.1 , traditional devices such as speed humps, cushions, plateaus and slow points may not be appropriate under the circumstances.

Subtle improvements to the streetscape may create a closed feel to these avenues and bring about a reduction in speeds.

Elements could be incorporated into the streetscape, which increase a perception of a narrower road with a more 'closed in' feel, for example additional street trees (currently few in number) and shallow kerb protuberances, to slightly reduce the effective carriageway widths. These physical measures should be considered in particular adjacent the Hendon Primary School.

Carriageway widths along these roads may only permit such an arrangement on one side of the road at a time, as they are nominally $7-7.5 \mathrm{~m}$ wide. If the parking was to be indented slightly into the verges, parking to both sides of the road could be

Discussion and Draft Recommendations
maintained. The positions of trees, driveways and street furniture would need to be taken into consideration.

It should also be noted that traffic volumes in these avenues are relatively very low, approximately 200 - 300VPD. This furthers the case for treatments of a minimal nature only.

## Recommendation

Consider the intermittent application of landscaped protuberances in the north-south avenues, to form areas of indented parking, and to narrow the effective carriageways to $6-7 \mathrm{~m}$. Designs should not interrupt sight lines to and from driveways.

Consider incorporating indented parking into the verges. Such an arrangement could be designed so that the carriageway width is slightly reduced.

### 5.3.7 Wilson Street corner

Wilson Street is a wide street (10.8metres) running between Old Port Road and Frederick Road. It services and borders the industrial precinct bound by these roads and contains a 90 degree corner, adjacent Crown Terrace. Both approaches to this corner are wide and straight, which is preferred for large commercial and heavy vehicles, such as semi-trailers, that deliver to the industrial precinct.


View east from Wilson Street towards Crown Terrace


View south from Wilson Street

There is an ongoing issue with hoons undertaking "drag racing" in evenings and weekends when precinct business operations have ceased. These races have led to vehicles impacting and entering the property at 28 Crown Terrace (being the property on the south-east side of the Wilson Street corner).

One vehicle crashed into the dwelling on 29 April 2000 causing substantial structural damage. This type of anti-social behaviour cannot be addressed through traffic
control measures (refer to Section 4.2) and Council has been working with SAPOL to regulate the behaviour.

There are currently two uni-directional hazard boards placed within the corner, in conjunction with reflective marker posts that delineate the corner. Council may wish to consider highlighting the corner further by replacing these with larger signs, install with speed warning signs (a ball bank meter should be used to calculate suitable advisory speeds), increasing street lighting levels at the corner, installing edge lines around the corner, and remarking the existing centreline running through the corner.

Closing Wilson Street at the corner would form two cul-de-sacs causing large vehicles to reverse long distances to junctions compromising the daily safety of employees and customers. Closing the street has a number of detrimental impacts on business operations and property values, and may lead to the need to rename part of Wilson Street.

Extending Wilson Street east to Crown Terrace, and converting the corner into a Tjunction is also not considered appropriate as freight traffic may then enter Crown Terrace, a residential street.

With the relatively low traffic volumes on Wilson Street, the preferred treatment on the approaches to the Wilson Street corner is the installation of pavement narrowing spaced along Wilson Street between Brandwood Street and Symonds Street.

## Recommendation

Consider highlighting the corner by installing larger uni-directional hazard boards, installing speed warning signs, increasing street lighting levels at the corner and installing edge lines, and refreshing centre lines around the corner.

Consider pavement narrowing on the approaches to the corner as a means of reducing approach speeds.

### 5.4 Intersections

### 5.4.1 Crown Terrace / Lowe Street

This is a Y-Type junction, which has been slightly 'squared-up' by Council, to alleviate the problem of the excessive speed of the left turn from Crown Terrace into Lowe Street. Raised safety bars have also been added on the Lowe Street approach to prevent corner cutting by traffic turning right from Lowe Street into Crown Terrace.

Corner cutting has continued to occur when traffic turns right from Crown Terrace into Lowe Street. Some motorists drive on the wrong side of the safety bars in Lowe Street (the northern side of the safety bars).

This may be occurring for several reasons;

- Drivers are able to see through the corner from Crown Terrace into Lowe Street, establish that there is no traffic approaching from Lowe Street, and cut the corner to save time. When the corner cutting occurs, drivers turning right cannot avoid passing over the safety bars and driving on the wrong side of Lowe Street.
- Cars parked in Crown Terrace on the northern approach to the junction, and in the junction, force southbound vehicles onto the wrong side of the road and drivers then cut the corner into Lowe Street to correct the situation as quickly as possible.
- General lack of driver discipline.

Further alterations to the geometry of the intersection may not be warranted at this time, as kerb realignments have only recently been implemented in accordance with the relevant guidelines.

Measures such as the banning of parking on both Crown Terrace approaches to the intersection, and the installation of safety bars on these approaches, could be implemented and the results monitored for 6 months. An assessment could then be made of whether any further action is necessary at this location.


View south-east from Lowe Street towards Crown Terrace with new kerb build-out visible on the right

## Recommendation

## Consider installing raised safety bars on Crown Terrace and removing parking to both Crown Terrace approaches to Lowe Street.

The effects of these changes should be monitored for a period of 6 months and if no improvements to driver behaviour are noted than further alterations to the junction geometry (further squaring up) should be considered.

Discussion and Draft Recommendations

### 5.4.2 Royal Terrace / Kingston Avenue / James Street

This intersection features a Y-junction type alignment which means the priority through road is not always easily identifiable to motorists. In this case the Kingston / James route forms the through road with Royal Terrace the apparent secondary intersecting road.


There may be some scope to alter the kerb alignments / signage of Royal Terrace to make this road the more obvious stem of the ' $T$ ' as detailed in Figure 01 below.


Figure 01 NTS

## Recommendation

Consider kerb buildouts and Give Way signage on the Royal Terrace approach to this intersection so that Royal Terrace forms the more obvious stem of the $T$-junction, at which motorists should give way.

Discussion and Draft Recommendations

### 5.4.3 Fisher Street / Cooke Crescent

There are concerns of speeding on Cooke Crescent past the Child Care Centre near the Fisher Reserve. No speed or volume data is currently available however there is the potential for speed through the curve. Sight distances from driveways, and from Fisher Street into Cooke Crescent, may be limited by the geometry of Cooke Crescent.

## Recommendation

Install 'Children Warning Signs’ (series W6-3) on Cooke Crescent on both approaches to the Child Care Centre. The implementation of a $25 \mathrm{~km} / \mathrm{hr}$ school zone could be considered in order to slow traffic speeds, however it appears that children are dropped off within a fenced and gated area.

### 5.5 Parking

Events at AAMI Stadium (situated within 1km of Royal Park) regularly cause an influx of spectators, who park in residential streets, causing parking congestion and difficulty accessing properties and driveways for local residents.

The problem occurs in a number of streets in the southern half of Royal Park and as such is difficult to quantify, however a review of current parking restrictions could be undertaken.

Parking restrictions in the southern half of Royal Park are typically signed as shown below:


Typical sign plate - restricted parking times
The wording on the signage is considered to be ambiguous as it is not clear to all road users when events are taking place at AAMI Stadium. The restrictions appear to be ineffective as obstructive parking continues to occur and is a cause of significant concern to affected residents.

## Recommendation

Council may wish to consider banning parking on a permanent basis in the roads where obstructive parking is likely to occur, in particular in Cooke Terrace and North Parade, thus eliminating all ambiguity. Some kerbside parking should be retained for local residents and their visitors, perhaps for use by permit only.

### 5.6 Bicycle routes

Various streets in the precinct have been nominated as strategic bicycle routes in a previous study (Dorrestyn and Co). In general the routes form viable north-south or east-west alternatives to the nearby arterial roads.

The main north-south route includes Wilson Street (the entire length), Crown Terrace, Dover Street and Allan Street.

The east-west route includes Cooke Crescent, Forest Avenue, Poplar Street, Maple Avenue and Myrtle Street.

Due to the low traffic volumes in these roads no formal treatment for the cycle routes is recommended at this stage. However, it would be beneficial for Council and the community if the routes were at least demarcated with a minimal treatment, consisting of the cycle logo on the pavement, and signs at appropriate intervals. This would serve to better highlight the presence of the routes and to promote them.

## Recommendation

Consider the application of the cycle logo and signage on nominated cycle routes within the precinct.

### 5.7 Bus routes

Route 374 runs through Royal Park along the following streets;

- From Frederick Road into Cooke Crescent;
- Forest Avenue;
- Crown Terrace;
- Maple Avenue;
- Myrtle Street through to Tapleys Hill Road

There is no resident feedback to suggest that the bus route negatively impacts on general traffic and residential amenity in the area, or that bus operators themselves are experiencing any difficulty. Bus turning movements appear to be adequately accommodated.

Where indented parking may be recommended along a bus route, for example along Maple Avenue, care should be taken to accommodate the swept path of buses (refer to Section 5.3.5).

### 5.8 Footpaths

### 5.8.1 Frederick Street - access to the Woodlake Shopping Centre

As stated in Section 5.1, certain issues related to road safety, which may not be directly related to LATM, have been raised within this report.

The following issue was raised by an elderly resident whose gopher tipped into Frederick Street, and therefore urgent remedial action at this site is recommended.

Although on a boundary road, deficiencies have been noted with access to the Woodlake Shopping Centre. There is a pedestrian ramp adjacent the shopping centre for access across Frederick Road (forming the western boundary road) from the west. The ramp has been built across the footpath with no accessible landing behind.


This forces pedestrians and gopher-users travelling along Frederick Street to have to travel over the ramp. The current layout also means that gopher-users cannot align themselves onto the ramp in order to cross Frederick Street. There is no access into the shopping centre from the ramp as the concrete path provided is then blocked by car parking which continues across the end of the path.

## Recommendation

A landing should be constructed behind the kerb ramp to allow the passage of gopher users and pedestrians along Frederick Street. The upright kerbing at the shopping centre should be laid down, and a parking space deleted to provide access through to the shopping centre.

[^0]
## 6. Community Feedback

The following section outlines the draft recommendations issued for community review together with the results of the community feedback. Where appropriate, responses are offered to comments made by the community, however in light of the high levels of support received, few amendments to the recommendations are considered necessary.

### 6.1 Levels of Treatment

## Draft Recommendation

High impact treatments for Royal Park, for example speed humps, plateaus and further roundabouts, are not considered necessary, as reasonably low 85th\%ile speeds and volumes were recorded. Low impact treatments, such as streetscape improvements, for example further trees, in conjunction with indented parking (see Rosetta Street, West Croydon), may bring about speed reductions in line with the speeds recommended in the draft QED Traffic Management Strategy.

## Level of Community Support

$84 \%$ of respondents supported this recommendation. Some respondents raised concerns with speeding traffic in the area, however on the basis of current traffic data collected, the concerns cannot be substantiated. As a matter of course Council should continue to monitor speeds with a view to considering further measures if necessary.

## Suggested Amendment to Recommendation

No change is considered necessary to the recommendation.

### 6.2 North Parade

## Draft Recommendation

It is recommended that one-way conditions are implemented permanently along North Parade (eastbound) at all times to improve traffic flow (with the exception of the two cul-de-sac ends). Retain all parking to the northern side of the road. Sign the road appropriately particularly at the two entry points along the western half of the road.

## Level of Community Support

$79 \%$ of respondents supported this recommendation. Several respondents raised concerns with the numbers of pedestrians walking in the carriageway along North Parade after football games. It is felt that one-way traffic conditions will reduce the potential for conflict during times of congestion, and will improve the overall level of safety. Congested conditions will also act as a natural governor for vehicle speeds.

## Suggested Amendment to Recommendation

No change is considered necessary to the recommendation.

### 6.3 Risely Avenue

## Draft Recommendation

It is recommended that Council install warning signage on the approaches to the bend on Risely Avenue adjacent the Hendon Primary School, and conduct a ball bank speed survey to determine an appropriate advisory speed for the bend.

## Level of Community Support

$95 \%$ of respondents supported this recommendation.

## Suggested Amendment to Recommendation

No change is considered necessary to the recommendation.

### 6.4 The north / south Avenues

## Draft Recommendation

It is recommended that Council consider the intermittent application of landscaped protuberances to form areas of indented parking, and to narrow the effective carriageways to $6-7 \mathrm{~m}$, along Cedar, Wattle, Maple and Palm Avenues. Designs should not interrupt sight lines to and from driveways. Consider incorporating some indented parking into the verges of the north-south avenues. Such an arrangement should be designed so that there is a reduction in overall carriageway width, and to accommodate bus turning movements where necessary.

## Level of Community Support

$88 \%$ of respondents supported this recommendation.

## Suggested Amendment to Recommendation

No change is considered necessary to the recommendation.

### 6.5 Wilson Street corner

## Draft Recommendation

It is recommended that Council consider highlighting the corner by installing larger uni-directional hazard boards, installing speed warning signs, increasing street lighting levels at the corner, installing edge lines, and remarking the existing centre lines through the corner. Consider pavement narrowing on the approaches to the corner as a means of reducing approach speeds.

## Level of Community Support

$100 \%$ of respondents supported this recommendation.
Suggested Amendment to Recommendation
No change is necessary to the recommendation.

### 6.6 Frederick Road - access to the Woodlake Shopping Centre

## Draft Recommendation

It is recommended that Council construct a landing behind the kerb ramp on Frederick Street to allow the passage of gopher users and pedestrians along the street. The upright kerbing at the shopping centre should be laid down, and a parking space deleted to provide access through to the shopping centre.

## Level of Community Support

$100 \%$ of respondents supported this recommendation.
Suggested Amendment to Recommendation
No change is necessary to the recommendation.

### 6.7 Crown Terrace / Lowe Street

## Draft Recommendation

It is recommended that Council consider installing raised safety bars on Crown Terrace and removing parking to both Crown Terrace approaches to Lowe Street. The effects of these changes should be monitored for a period of 6 months and if no improvements to driver behaviour are noted than further alterations to the junction geometry (further squaring up) should be considered.

Level of Community Support
$89 \%$ of respondents supported this recommendation.
Suggested Amendment to Recommendation
No change is considered necessary to the recommendation.

Community Feedback

### 6.8 Royal Terrace / Kingston Avenue / James Street

## Draft Recommendation

It is recommended that Council consider kerb buildouts and Give Way signage on the Royal Terrace approach to this intersection so that Royal Terrace forms the more obvious stem of the T-junction, at which motorists should give way.

## Level of Community Support

$94 \%$ of respondents supported this recommendation.

## Suggested Amendment to Recommendation

No change is considered necessary to the recommendation.

### 6.9 Fisher Street / Cooke Crescent

## Draft Recommendation

It is recommended that Council install ‘Children Warning Signs’ (series W6-3) on Cooke Crescent on both approaches to the Child Care Centre on Cooke Crescent The implementation of a $25 \mathrm{~km} / \mathrm{hr}$ school zone should also be considered, as a means of slowing traffic speeds.

Level of Community Support
$100 \%$ of respondents supported this recommendation.

## Suggested Amendment to Recommendation

No change is considered necessary to the recommendation.

### 6.10 Parking

## Draft Recommendation

A general review of parking restrictions in Royal Park is recommended. Council may wish to consider banning parking on a permanent basis in the roads where obstructive parking is likely to occur, for example Cooke Terrace and North Parade, thus eliminating all ambiguity as to the restricted times. Some kerbside parking should be retained for local residents and their visitors for use by permit only.

## Level of Community Support

$68 \%$ of respondents supported this recommendation. The level of approval for this recommendation is slightly lower than that for the other recommendations, which may reflect a degree of apprehension regarding the concept of introducing permit parking. Permit parking is still considered a worthwhile initiative, however it may be worth emphasising that this would not be introduced without extensive community consultation and support.

Community Feedback

## Suggested Amendment to Recommendation

A general review of parking restrictions in Royal Park is recommended. Council may wish to consider banning parking on a permanent basis in the roads where obstructive parking is likely to occur, for example Cooke Terrace and North Parade, thus eliminating all ambiguity as to the restricted times.

Some kerbside parking should be retained for local residents and their visitors for use by permit only, however any parking permit scheme would require extensive community consultation and support.

### 6.11 Bicycle routes

## Draft Recommendation

Consider the application of the cycle logo and signage on nominated cycle routes within the precinct.

## Level of Community Support

$81 \%$ of respondents supported this recommendation. Some concerns were raised which reflected the wider issues of the legality of bicycle lanes and the positions of lanes on arterial roads, however it is not considered appropriate to address these concerns within the report.

## Suggested Amendment to Recommendation

No change is considered necessary to the recommendation.

### 6.12 Summary

In summary the clear majority of respondents supported each of the recommendations which were circulated.

Key issues which were raised include the following;

- Pedestrian numbers and the potential for conflict in North Parade after football games; the enforcement of one-way traffic flow may improve this situation, and it is felt that the levels of pedestrian congestion at these peak times will naturally govern vehicle speeds in North Parade.
- Parking congestion during and after football games; this continues to be raised by many residents, and a review of parking conditions is considered to be warranted, in addition to an investigation into permit parking.

The following table summarises the level of support for each recommendation;

|  | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 6.6 | 6.7 | 6.8 | 6.9 | 6.10 | 6.11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STRONGLY AGREE | 0 | 5 | 9 | 8 | 4 | 6 | 3 | 7 | 7 | 3 | 4 |
| AGREE | 16 | 10 | 9 | 7 | 14 | 11 | 13 | 9 | 11 | 10 | 9 |
| DISAGREE | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 4 | 3 |
| STRONGLY DISAGREE | 2 | 2 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| \% Support | 84\% | 79\% | 95\% | 88\% | 100\% | 100\% | 89\% | 94\% | 100\% | 68\% | 81\% |
| \% Non-Support | 16\% | 21\% | 5\% | 12\% | 0\% | 0\% | 11\% | 6\% | 0\% | 32\% | 19\% |

## 7. Final Recommendations

This summary consists of 12 final recommendations, and an A3 map which summarises the recommendations graphically.

### 7.1 Levels of Treatment

High impact treatments for Royal Park, for example speed humps, plateaus and further roundabouts, are not considered necessary, as reasonably low 85th\%ile speeds and volumes were recorded. Low impact treatments, such as streetscape improvements, for example further trees, in conjunction with indented parking (see Rosetta Street, West Croydon), may bring about further speed reductions in line with the recommendations in the draft QED Traffic Management Strategy.

### 7.2 South Australian Housing Trust

It is recommended that Council initiate formal discussions with the South Australian Housing Trust as soon as practicable in order to assess the likely impact of SAHT developments on traffic levels and movements in Royal Park.

### 7.3 North Parade

It is recommended that one-way conditions are implemented permanently along North Parade (eastbound) at all times to improve traffic flow (with the exception of the two cul-de-sac ends). Retain all parking to the northern side of the road. Sign the road appropriately particularly at the two entry points along the western half of the road.

### 7.4 Risely Avenue

It is recommended that Council install warning signage on the approaches to the bend on Risely Avenue adjacent the Hendon Primary School, and conduct a ball bank speed survey to determine an appropriate advisory speed for the bend.

Final Recommendations

### 7.5 The north / south Avenues

It is recommended that Council consider the intermittent application of landscaped protuberances to form areas of indented parking, and to narrow the effective carriageways to 6-7m, along Cedar, Wattle, Maple and Palm Avenues. Designs should not interrupt sight lines to and from driveways. Consider incorporating some indented parking into the verges of the north-south avenues. Such an arrangement should be designed so that there is a reduction in overall carriageway width, and to accommodate bus turning movements where necessary.

### 7.6 Wilson Street corner

It is recommended that Council consider highlighting the corner by installing larger uni-directional hazard boards, installing speed warning signs, increasing street lighting levels at the corner, installing edge lines, and remarking the existing centre lines through the corner. Consider pavement narrowing on the approaches to the corner as a means of reducing approach speeds.

### 7.7 Frederick Road - access to the Woodlake Shopping Centre

It is recommended that Council construct a landing behind the kerb ramp on Frederick Street to allow the passage of gopher users and pedestrians along the street. The upright kerbing at the shopping centre should be laid down, and a parking space deleted to provide access through to the shopping centre.

### 7.8 Crown Terrace / Lowe Street

It is recommended that Council consider installing raised safety bars on Crown Terrace and removing parking to both Crown Terrace approaches to Lowe Street. The effects of these changes should be monitored for a period of 6 months and if no improvements to driver behaviour are noted than further alterations to the junction geometry (further squaring up) should be considered.

### 7.9 Royal Terrace / Kingston Avenue / James Street

It is recommended that Council consider kerb buildouts and Give Way signage on the Royal Terrace approach to this intersection so that Royal Terrace forms the more obvious stem of the T-junction, at which motorists should give way.

### 7.10 Fisher Street / Cooke Crescent

It is recommended that Council install 'Children Warning Signs' (series W6-3) on Cooke Crescent on both approaches to the Child Care Centre on Cooke Crescent. The implementation of a $25 \mathrm{~km} / \mathrm{hr}$ school zone should also be considered, as a means of slowing traffic speeds.

Final Recommendations

### 7.11 Parking

A general review of parking restrictions in Royal Park is recommended. Council may wish to consider banning parking on a permanent basis in the roads where obstructive parking is likely to occur, for example Cooke Terrace and North Parade, thus eliminating all ambiguity as to the restricted times.

Some kerbside parking should be retained for local residents and their visitors for use by permit only, however any parking permit scheme would require extensive community consultation and support.

### 7.12 Bicycle routes

Consider the application of the cycle logo and signage on nominated cycle routes within the precinct.


Appendix A

## Appendix A

## Community Circulars

## Local Area Traffic Management Review Royal Park

Council is reviewing traffic and road safety in the Royal Park areas bounded by:

- Old Port Road
- Tapleys Hill Road
- West Lakes Boulevard
- Frederick Road

A Local Area Traffic Management (LATM) Plan will be developed to address a range of factors including management of the road network for all users including, pedestrians, cyclists, public and community transport, commercial transport, and private vehicles. The LATM plan has to balance the needs of the community that live in the area with the transport uses of the roads within the precinct. Sometimes this is not easy as legitimate traffic movements can affect the residential amenity and safety within the area.

Council has engaged Tonkin Consulting to develop the LATM Plan in consultation with the community. The first stage of the process will be to identify the existing traffic and road safety issues within the precinct. While Tonkin Consulting will examine traffic data and crash records, and undertake their own independent review of the road network, they would also value your comments regarding these matters.

Your comments can be provided by returning the attached response form in the enclosed reply paid envelope.

Once all data has been collected and comments have been received, Tonkin Consulting will develop options for road engineering measures to address the problems. These options will be discussed and refined through liaison with Council and a Royal Park Resident Committee (see the enclosed attachment for further details). A draft LATM plan will subsequently be prepared for broader consultation with all residents and businesses in Royal Park.

Ultimately, Council requires a concise LATM plan for the Royal Park precinct that:

- identifies existing and future traffic related problems
- determines if road engineering solutions are warranted, and if so,
- the most appropriate and acceptable solutions to the community.


## Residents Committee <br> Community Representative Selection Process

Development of the Local Area Traffic Management Plan will be assisted by a Residents' Committee, made up of 4-6 community representatives, Ward Councillors, Council's technical staff and Tonkin Consulting.

The role of the Committee will be to:

- clarify and confirm the current and future traffic and road safety concerns in the area
- assist Tonkin Consulting in preparing the draft LATM by considering and selecting the most appropriate road engineering treatments.

The Committee will convene as required, depending on the availability of the members. At this stage, 3-4 meetings are expected as follows:

- project start up - overview and time frames
- confirmation of the issues and concerns identified by the community and data analysis
- consider options and priorities for road engineering treatments
- review draft LATM plan before wider community consultation.

If you are interested in representing the community on this Committee, we invite you to submit a written application. Your registration of interest should include a brief background of yourself, your interest in road safety and traffic management in the area, and your availability for meetings either during working hours or after hours. The Residents' Committee member selection will be based on the above criteria to ensure a cross section of residents are represented (eg. not every one living in the same street).

Please submit your registration of interest in representing the community on the Royal Park Residents' Committee to:

## Mr Paul Simons

c/- Tonkin Consulting
Registrations of interest can also be inserted in the enclosed reply paid envelope.

For further information contact Paul Simons on 82733100.

## Royal Park LATM

## Community Survey

Name: $\qquad$ Address: $\qquad$

Please identify any traffic and road safety concerns you have in the area.
$\square$ Speed of vehicles $\square$ Parking Arrangements $\quad \square$ Bicycle Facilities $\quad \square$ Footpaths $\square$ Road Lighting $\square$ Road Safety $\square$ Other
$\square$ Traffic Noise $\quad \square$ Traffic Volumes $\quad \square$ Street Environment $\square$ Property $\square$ Activities associated with land use
Locations and Issues: (eg. cracked footpath on the corner of Tapleys Hill Road and Pine Street)

Locations and Issues: (eg. cracked footpath on the corner of Tapleys Hill Road and Pine Street)
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## What solutions or opportunities do you think could be considered to resolve the issues you have identified?

Solutions/Opportunities
$\qquad$
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$\qquad$
$\qquad$
$\qquad$
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Thank you for taking the time to complete the questionnaire. Please return it in the reply paid envelope marked City of Charles Sturt, 72 Woodville Road, Woodville SA 5052.

Engineering

STURT

## ROYAL PARK LOCAL AREA TRAFFIC MANAGEMENT (LATM) PLAN

## Dear Sir / Madam

Our records show that in June last year you responded to a request for comments about traffic issues in your local area. Your comments were used to develop a draft LATM Plan for the Royal Park area.

Council has recently endorsed the "Findings and Recommendations for Consultation" report, prepared by Tonkin Consulting, and is now finalising the LATM Plan for Royal Park (and three other areas in Council Athol Park, West Croydon and Woodville South).

The Plans will help the Council to make traffic planning decisions in these areas and will improve the amenity of these local areas. The traffic control devices recommended in the Plans will be constructed over the next few years (as funds are made available).

Council is now seeking your feedback on the recommendations in the reports. We have enclosed a summary of the recommendations for the Royal Park LATM area. Full copies of the report are available to read at the Council offices at 72 Woodville Road, Woodville, or on the Council's website at www.charlessturt.sa.gov.au

We have also enclosed a response form for you to complete. The response form is also available on the website. I invite you to review the recommendations for traffic improvements in Royal Park and send your response to :

ROYAL PARK LATM Consultation Feedback,
PO Box 1
WOODVILLE SA 5011.

## Consultation closes on Friday 31 March 2006.

Thank you for your interest.


Paul Simons
Project Manager
On Behalf of City of Charles Sturt

## ROYAL PARK LATM

RESPONSE FORM

## Name:

$\qquad$

## Address

$\qquad$

Telephone: $\qquad$

## General Questions:

1. Do you support the draft LATM plan in the Royal Park Report?

Yes / No (delete as appropriate)
2. Does the draft LATM plan address your concern about traffic in Royal Park? Yes / No (delete as appropriate)
3. If not, why not?
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Specific Questions:

How strongly do you agree/disagree with the Report Recommendations (circle as appropriate)?
6.1: Levels of Treatment

Strong agree / Agree / Disagree / Strongly disagree
6.2: North Parade

Strong agree / Agree / Disagree / Strongly disagree
6.3: Risely Avenue

Strong agree / Agree / Disagree / Strongly disagree
6.4: The north/south Avenues

Strong agree / Agree / Disagree / Strongly disagree
6.5: Wilson Street Corner

Strong agree / Agree / Disagree / Strongly disagree
6.6: Frederick Road "access to Woodlake Shopping Centre"

Strong agree / Agree / Disagree / Strongly disagree
6.7: Crown Terrace/Lowe Street

Strong agree / Agree / Disagree / Strongly disagree
6.8: Terrace/Kingston Avenue/James Street

Strong agree / Agree / Disagree / Strongly disagree
6.9: Fisher Street/Cooke Crescent

Strong agree / Agree / Disagree / Strongly disagree
6.10: Parking

Strong agree / Agree / Disagree / Strongly disagree
6.11 Bicycle Routes

Strong agree / Agree / Disagree / Strongly disagree
Comments:
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## Thank you for your interest

## Please return to :

ROYAL PARK LATM Consultation Feedback
PO Box 1
WOODVILLE SA 5011.
Consultation closes on Friday 31 March 2006.

Appendix B

## Appendix B

## Speed and Volume Data



## Appendix C

## Collision Maps





[^0]:    City of Charles Sturt
    Royal Park LATM - Findings and Recommendations 20050191RA5 REV D.doc

