City of Charles Sturt

Woodville South LATM

Findings and Recommendations

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June, 2006
Ref No 20050191RA7

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TRAFFIC & TRANSPORT

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Acknowledgement - Residents' Committee

The Woodville South Local Area Traffic Management Scheme was developed within the forum of a Residents' Committee. The Committee was formed pursuant to an invitation by the Council in the call for submissions (refer Sect. 3.2).

The residents who nominated to be on the Committee are all long term residents and in a number of cases are lifelong residents of Woodville South. They chose to take part in the process out of a genuine interest for Woodville South and particularly for local traffic conditions and road safety. The Committee members gave up a significant amount of their time through attendance at numerous meetings. They guided all traffic management proposals.

The Consultant gratefully acknowledges their very valuable input to the project.

Document History and Status

Rev	Description	Author	Rev'd	App'd	Date
A	Final for Community Consultation	KD	PCS	PCS	7/2/06
B	Final Report	KD	PCS	PCS	4/5/06

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 WOODVILLE SOUTH area. Separate reports have been prepared for each of the other areas.

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

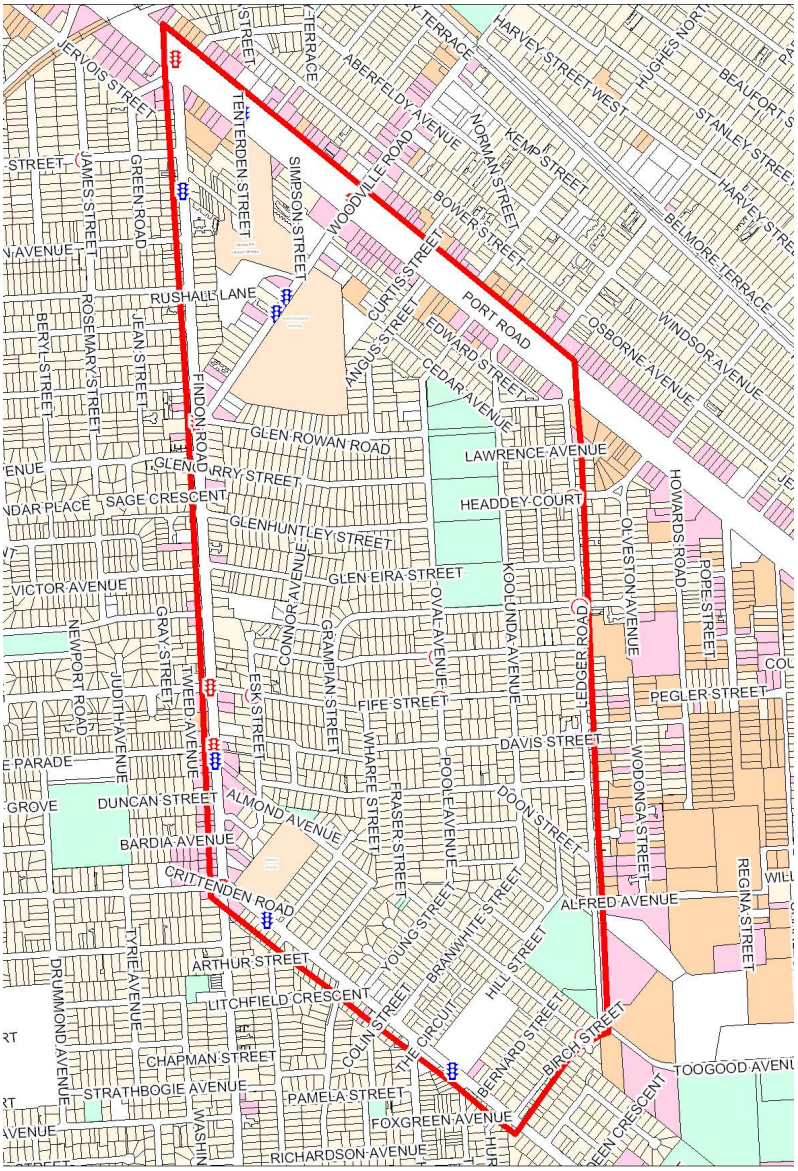
This report presents the findings and recommendations for the Woodville South precinct based on the Draft Report for Consultation (endorsed by Council in February 2006), together with responses from the subsequent community feedback process.

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

2. Study Area

2.1 General

The Woodville South precinct subject to this review is shown below. Arterial roads (Port Road, Findon Road and Crittenden Road) were excluded from the study which was focussed on traffic conditions within the local area. Notwithstanding, consideration has been given to traffic management along the arterial roads where safety or accessibility to the local streets is adversely influenced.



The area is predominantly comprised of residential development, although there are several notable land-use features:

- Queen Elizabeth Hospital (QEH)
- Woodville Primary School
- Woodville Oval / Bowling Club complex
- Siena College / Our Lady of the Manger School
- Chinese Language School

In addition major strip shopping precincts exist along Port Road and Findon Road. The industrial suburb of Beverley is located immediately to the east of Woodville South, which gives rise to some land use compatibility conflicts.

2.2 Existing Traffic Use and Controls of Note

The area has been the subject of previous LATM plans. With reference to the figure in Appendix D there are a series of road closures in the southern section of the area, which primarily along or adjacent Koolunda Avenue / Branwhite Street, and Oval Avenue / Young Street. In addition, road humps exist along Glenavon Street and Fife Street, and roundabouts exist at the southern section of Oval Avenue, Davis Street, the northern section of Ledger Road and Birch Street. A traffic management scheme was previously implemented along Oval Avenue, comprising inset parking and median islands.

Direct connections to the arterial road network and local streets exist via traffic signals, at the Findon Road intersections of Glenrowan Road and Fife Street.

Bus routes exist along all adjacent arterial roads, other than Findon Road north of Woodville Road. Chartered buses are used occasionally to transport people to the Woodville Oval complex. Similarly, on several occasions each year, large media vehicles attend the complex for South Australian National Football League (SANFL) football matches.

Under the Councils' Local Strategic Bike Plan (1998), the following routes are nominated:

- a north south route consisting of Branwhite Street, Poole Avenue, and Oval Avenue;
- a east west routes along Tunbridge Street, Fife Street / Davis St, and Glenrowan Road.

3. Method

3.1 Overview

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 assessment of available traffic and crash data. This generic approach to the LATM process was adopted in each of the five precincts reviewed.

- Community identification of issues
- Collection and review of traffic data
- Review of available collision data
- Review of background documentation
- Site inspections
- Scheme development with Residents' Committee
- Review by Council administration
- Community feedback process

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.

In each of the other four LATM precincts, a Registrations of Interest was also sought for residents to represent the local community in each area. 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.

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 4.2).

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.

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 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 plateaux.

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.

The principals 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 Scheme Development with Residents' Committee

Based on the information obtained through the above processes, a traffic management plan was developed during the course of a series of meetings with the Residents' Committee. This was subsequently reviewed by the Council's administration.

3.8 Community Feedback

The draft Traffic Management Scheme was endorsed by Council for community review in February 2006. All residents that responded to the initial community consultation phase (issues identification) 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. A copy of the community questionnaire is also included in Appendix F.

4. Findings

4.1 Summary & Residents Concerns

Approximately 1160 community circulars were distributed throughout Woodville South in June 2005. 79 submissions were received, representing a response rate of 6.8%

The following table summaries these responses. Locations that were identified by more than one resident are emboldened, and those identified by 5 or more residents are underlined.

4.1.1 Streets

Angus Street
- Busy due to hospital
- Speeding at bend

Bernard Street
- Congestion/parking on Saturday's at Crittenden end (due to Language School)

Birch Street
- **Speeding**
- **Noise**
- **Volumes**

Branwhite Street
- **Speeding / used as a race track**
- **<u>Congestion/parking on Saturday's at Crittenden end (due to Language School)</u>**
- **Visibility for right turns into Crittenden**
- **<u>Illegal U-turns (on Crittenden & Branwhite) – Saturdays</u>**
- Parking by tow truck (?) at bend
- Volumes too high

Cedar Avenue
- **Speeding / speed limit not observed / enforced**
- Speeds when football / dog obedience classes are occurring
- Speeds of traffic turning from Koolunda
- Hospital traffic taking shortcuts
- **Speeding at all times**
- Concern for child safety when crossing street (adj. Kindergarten)
- Oval bend hazardous due to traffic speeds
- Non observance of Stop signs
- Parking congestion (#1)

Connor Avenue

- **Vision at Glen' intersections (particularly when football on at Woodville Oval)**

Crittenden Road– DTEI Road

- **Night-time traffic speeds**
- Parking congestion / double ranking on Saturdays outside Language School
- Parking outside Macedonian Hall / blocking #150 driveway etc
- Parking by those attending Language School blocks driveways

Evans / Tenterden / Simpson

- Unsafe during school travel periods
- Wrong way travel
- Speeding
- Parking

Evans Street

- Speeding
- Restrictive parking controls– guests receiving tickets

Fairweather Avenue

- Traffic volumes from Woodville Oval (realising Headdey closed)

Findon Road – DTEI Road

- **Speeding past kindergarten**
- Right turn arrow needed at Crittenden Road for northbound traffic
- Speeding from Findon to Woodville (evenings mainly)
- Parking across driveway (63 Findon Road)

Findon Road (Trimmer – Crittenden) – DTEI Road

- Speeding
- Lack of bike lanes
- Severance of neighbourhood shopping centre

Fife Street

- Too many roundabouts (non resident view)
- **Through route**
- Traffic volumes
- Visibility when right turning from Wharf to Fife
- Hump unsightly and ineffective
- Fife Street - bends represent a chicane, and attract aggressive driving – rollover and other lost control incidents have occurred . Generally late afternoon/early evening, weekends

Fraser Street

- Used as a race track

'Glen' Streets

- General speed problem
- **Though traffic**
- Parking congestion

Glenavon Street
- Noise when cars etc pass over road humps (remove)

Gleneira Street
- **Against parking restrictions when football not on (especially on Sundays)**
- **Traffic speeds / noise**
- Car parking on Saturday's prevent use of driveways (#36)
- Parking congestion at Findon / Gleneira

Glengarry Street
- **Through route to Port Road in peaks – to avoid Woodville Road signals**
- **Traffic speeds (night)**
- Hospital traffic (workers)
- Parking controls too limiting – want 3-4hr parking from 9am – 5pm
- Oval intersection – squeeze turning into Glengarry due to island / parking

Glenhuntley Street
- **Speeding**
- Parking too close to junctions

Glenlossie Street
- **Non observance of No Through Road sign at Oval Avenue (daily basis)**
- through traffic in Oval – Koolunda section, which have caused several hazardous incidents

Glenrowan Road
- hazardous (right?) turning into Findon Road
- **through traffic**
- Speeds
- Hospital visitors trying to gain access to parks (there is none here) cause problems
- Poor visibility at Oval intersection
- Bicycle push button actuators not accessible at Findon (SE cnr)

Grampian Street
- Speeding
- Street trees force large vehicle out to centre of road

Headdey Court
- No Through Road sign too small
- Parked cars obstructing driveways during football games
- Through route via Headdey, Fairweather, Short, Ledger

Koolunda Avenue
- Noise
- **Used as race track / traffic speeds**
- Speeds in vicinity of & particularly when turning into Glenlossie (3 serious collisions when turning at Glenlossie also)

Lawrence Avenue
- Speeding
- Parking arrangements

Ledger Road
- **Speeding (southern half generally, but also between roundabouts)**
- Parking controls should revert back to No Parking Noon-5pm Football days
- **Volumes / noise / through / heavy traffic**
- **Excessive speeds (incl. Trucks) at Woodlands roundabout**

Oval Avenue
- 25 km/h speed limit not observed / enforced
- **Turning from Glen streets difficult due to islands**
- **Port Road intersection – hazardous, aggressive, poor visibility, congestion; cars ignore give way sign at crossover etc**
- **Parking congestion (hospital worker vehicles main problem)**
- **Islands ineffective, ugly, interfere with right turns, hazardous etc**
- **Speeding**
- **Failure of drivers on Glen streets to slow/stop before turning left**
- **Through traffic to/from Glen streets (Findon Road) along Oval Avenue in peaks**
- Poor visibility at football club driveway (due to hedge)
- **Additional parking in vicinity of Oval required / during football matches**
- Camber of road + buses & trucks = problems / squeeze
- Too many roundabouts
- Southbound cycling unsafe due to islands
- Cycle access to Dee Street required?

The Circuit
- U-turns by Language School parents (at Branwhite)
- Narrow – sometimes impassable when vehicles parked on both sides

Woodville Road (Port – Findon) – DTEI Road
- **Speeds & volumes high for busy pedestrian zone**

4.1.2 General Comments

Siena College
- **Redevelopment will worsen conditions on surrounding roads**

Hospital Parking
- Insufficient e.g. has been reduced in Glenrowan, Connor
- General problem

Parking
- Generally insufficient
- QEH and other parking demands increasing on residential streets

Pedestrian Access
- General area concern

'Hooning'

- Birch Street - burnouts
- Cedar Avenue - at Oval intersection
- Crittenden Road – burnouts (DTEI Road)
- Fife Street - squealing tyres at Ledger intersection
- Gleneira Street - burnouts at night
- Ledger Street – Burnouts
- Oval Avenue - at roundabouts

Lighting Poor

- Fife Street (of road humps)
- Glengarry Street
- Glenrowan Road
- Grampian Street (due to trees)
- Oval Avenue (of islands)

Footpath & Other Pavement Condition Poor

- Birch Street
- Branwhite Street (Crittenden - Tunbridge)
- Cedar Avenue (and kerbing)
- **Crittenden Road (Birch – Bernard, #110, #150)**
- Glenavon Street (trees lifting footpath, cracked at #41)
- **Gleneira Street (#16, 18, 36, 40, 48) - Kerbing at Findon end in poor condition**
- Glengarry Street (east end, #47)
- Glenlossie Street (Grampian – Connor)
- Glenrowan Road
- Grampian Street
- Headdey Court (due to sunken service pit - #3
- **Ledger Street (near Woodlands due to trucks, hedge obstruction also)**
- Oval Avenue (also obstructed by trees branches / hedges etc)
- The Circuit (#24)
- Woodville Road (Glenrowan – QEH)

Footpath / Pedestrian Hazards due to Tree Droppings

- Crittenden Road
- Glenlossie Street
- Headdey Court (#3)

4.1.3 Summary – Resident Submissions

In summary, the principal issues listed in the submissions were:

- through traffic in the 'Glen' streets;
- traffic congestion and frustration in relation to traffic associated with the Chinese Language School, particularly in Branwhite Street;
- Oval Avenue;

- Cedar Avenue;
- traffic speeds in Birch Street, Oval Avenue and Ledger Road;
- inappropriate driving / hooning.

4.2 Traffic Survey Data

Speed and traffic 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 get a general appreciation of traffic conditions in the precinct:

- Oval Avenue (south of Gleneira Street)
- Oval Avenue (Glenrowan Street – Cedar Avenue)
- Koolunda Avenue
- Glenrowan Street
- Glengarry Street
- Glenhuntley Street
- Gleneira Street
- Ledger Road (Lawrence – Newington)
- Ledger Road (Doon – Princess)
- Branwhite Street

A summary of the data obtained from the surveys is included in Appendix B. The principal outcomes of the surveys are discussed below:

In respect of traffic speeds:

- the results indicate a reasonably high level of consistency among the surveyed streets, with 85th percentile speeds ranging from 55 to 60 km/h;
- the proportion of vehicles exceeding the speed limit was generally in the order of 25 to 40%, with Ledger Road (south) at 55%;
- whilst these speeds are higher than desirable they are reasonably typical of established inner metropolitan area streets, with a similar function;
- there was also consistency throughout the area in relation to the maximum speed recordings - in 6 of the 9 locations surveyed, speeds in excess of 140 km/h were recorded, which is excessive, and cause for concern, and supports some of the claims in the residents submissions.

In respect of traffic volumes:

- the level of traffic along streets in the area is generally consistent with the local function of the streets
- along those streets that could clearly be designated as 'Local Streets', traffic volumes are generally in the order of 600 to 800 vehicles per day, which is generally indicative of streets with a reasonably high level of amenity
- traffic volumes along the northern section of Oval Avenue, which is designated as a collector road, are 2750 vehicles per day, and accordingly within what is traditionally regarded as environmental capacity of a residential streets (3000 vehicles per day)
- significant traffic volumes also exist in Ledger Road (south) but in this case is consistent with the function of the road.

In respect of heavy vehicles:

- the level of commercial traffic (non Class 1 and 2) throughout the area was generally in the order of 2 to 3%, which is relatively low;
- only Ledger Road experienced a significantly higher level of commercial traffic with 8.0% and 6.6% in the north and south sections of the road respectively;
- these results are generally indicative of good conditions in terms of the impact of commercial traffic on residential streets, the only exception being the north section Ledger Road where the content is high but generally tolerable.
- a member of the Residents' Committee from the north section of Ledger Road, highlighted concerns at the level of articulated vehicles (semi trailers etc) using that section of the road. The surveys indicated that approximately 15 articulated vehicles per day used that section of the street, which is significant given the abutting residential development.

4.3 Collision Data

4.3.1 General

Figures showing the location, type and severity of collisions in the precinct are included in Appendix C.

The reported incidents for Woodville South indicate that collisions have occurred largely on a random basis, which is typical of local traffic precincts, where the degree of 'exposure' is limited. The records also indicate there have been very few incidents which have resulted in injuries, and none which have resulted in fatal injuries.

The following aspects are of interest:

- in most locations only one occurrence had been reported – the exceptions to this were:
  - Cedar Avenue / Oval Avenue intersection;
  - Birch Street / Ledger Road intersection;
  - Ledger Road;
  - Ledger Road / Glenlossie Street intersection.
- the collision history along surrounding arterial roads is significant and in general terms not surprising given the level of 'exposure' along those roads. Whilst it is helpful to have an indication of circumstances along those roads they are outside the scope of this project.

Also:

- 2 of the 6 crashes (right turn and rear end incidents) at the intersection of Branwhite Street and Crittenden Road occurred on a Saturday morning – [when residents highlighted significant concerns due to traffic associated with the Chinese Language School which is held on Saturday mornings];
- 11 incidents were reported as having occurred at the Oval Avenue / Cedar Avenue intersection. None resulted in injuries. Nine of these were right angle incidents (6 of which involved a vehicle travelling southeast, colliding with a vehicle travelling northeast). Otherwise these incidents occurred at various times, on various days and had no other pattern of note;
- No "Hit Pedestrian" incidents were reported as having occurred along local roads;
- The only location where 2 (or more than 1) 'Head On' incident occurred was Simpson Avenue – however both incidents were low severity incidents and occurred outside of school times, and 1 appeared to be a result of a driver leaving a car park in an unsafe manner;
- The only incident to have occurred in Tenterden Street was a minor 'Side Swipe' incident, which occurred during a morning school traffic period;
- It was encouraging that only 1 'Hit Fixed Object' incident resulted in injuries;
- The only location where 2 (or more than 1) 'Hit Fixed Object' incidents occurred was in Ledger Road, at the intersections of Glenlossie Street and Birch Street. The Birch Street incidents are not unexpected given the geometry of the intersection and level of exposure;

- The only location where 2 (or more than 1) 'Hit Parked Vehicle' incidents occurred was in Fife Street between Wharfe Street and Oval Avenue - however there were no similarities between the 2 events.

4.3.2 Collision Costs

The cost of crashes, which occurred during the period, along local Woodville South streets, is also provided in Appendix C.

The rates used to calculate the overall costs were derived from average collision costs from what is regarded as the most authoritative reference[1]. 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.

In summary the costs were as follows.

Severity	#	%	Rate ($)	Cost ($)
Property Damage Only	69	87.3	5,808	$ 400,752
Minor Injury	9	11.4	13,776	$ 123,984
Severe Injury	1	1.3	408,000	$ 408,000
Fatal	0	0.0	1,700,000	$ -
Total	79	100.0		$ 932,736

4.4 Parking

The density of parking controls along streets in the area is substantial. It is evident these were implemented as a result of problems caused by the demands for parking associated with the Queen Elizabeth Hospital (QEH) and the Woodville Oval complex. It appears those in vicinity of the QEH are mainly associated with parking during weekday periods, whereas those in the vicinity of the Woodville Oval were established as a result of parking issues associated with South Australian National Football League (SANFL) football matches held on weekends.

Numerous concerns were raised in the resident submissions regarding the impact of the parking controls themselves. For residents from streets located near to the QEH and the Woodville Oval complex, the opportunity to park in their own streets is often limited. The controls associated with SANFL matches may well be excessive given they apply on both days of every weekend, and that matches are only played occasionally, and would not attract the parking congestion levels that occurred prior to local football teams entering the AFL. Nonetheless, complaints in relation to parking during football matches were received in a few instances.

[1] Bureau of Transport Economics (BTE), 'Road Crash Costs in Australia' – Report 102 (2000), Commonwealth Government of Australia.

In addition to the existing parking problems, the Residents' Committee was informed that it is likely 300 (500 at peak) car parking spaces will be displaced from QEH properties during the early stages of the redevelopment of the QEH complex, for a period of 2-3 years. Consequently, there are significant concerns that parking problems in Woodville South streets will be exacerbated in the vicinity of the QEH during that period.

4.5 Summary of Key Issues

To some extent traffic surveys are carried out to verify the perceptions of and claims made by residents. However reports of 'rat running' are generally unable to be substantiated due to the substantial cost of performing Origin and Destination surveys. A primary cause of such problems is the efficiency of the arterial road network. There is little doubt that the use of the 'Glen' streets and Oval Avenue represents a good opportunity for traffic attempting to bypass delays at the traffic and pedestrian signal installations along Woodville Road, between Findon Road and Port Road.

Whilst the 85th percentile speed results do not necessarily support the concerns by residents, there is a difference between the general traffic speeds, and aggressive driving and hooning. Experience indicates the latter can have an appalling impact on the amenity of residential streets. The prevalence of some very high speeds recorded throughout the area is evidence of such problems. Whilst hooning etc is regarded more as a social problem than a traffic problem, it does increase the emphasis on traffic management solutions which will limit the possibility of high speed driving through residential streets, and therefore should be considered.

In summary, in addition to the primary issues raised in the resident submissions:

- Measures to limit the incidence of malicious high speed driving should be considered;
- A review of parking controls in the area is needed, particularly those which apply over weekend periods;
- Road safety at the intersection of Oval Avenue and Cedar Avenue should be improved.

5. Discussion and Recommendations

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

5.1 Woodville South Residents' Committee

The Woodville South Local Area Traffic Management Scheme was developed within the forum of a Residents' Committee. The Committee was formed pursuant to an invitation by the Council in the call for submissions (refer Sect. 3.2). The residents who nominated to be on the Committee were all long-term residents and in a number of cases were lifelong residents of Woodville South. As such they had considerable knowledge of the area and of traffic conditions.

The Committee met on seven occasions (to date). It guided all traffic management proposals. The Committee meetings were the prime forum for technical discussion, and also represented a meaningful level of consultation with representatives of the local community.

The details in this section reflect the deliberations and resolutions of the Residents' Committee.

5.2 Residents' Committee Traffic Management Scheme

The primary outcome of the Residents' Committee deliberations, was the traffic management scheme shown in Appendix D.

An example of each type of traffic control device proposed as part of the traffic management scheme is shown in Appendix E. These have been provided either as an indication of what is proposed, or were prepared to confirm whether or not a specific device was likely to fit etc (also see Sect. 0).

In relation to the development of the scheme, the following aspects are worth noting:

- The area is substantially treated with traffic control devices under existing conditions;
- Not all reported issues are proposed to be acted upon;
- A resident contacted the Council in relation to traffic issues in the area, since the development of the residents' scheme, that had not previously been reported.

That is, even despite the detailed process that has been carried out, it is not possible to be aware of all issues and it is generally undesirable to act on all issues. The

Committee was mindful that some previous treatments in the area had displaced traffic inappropriately, and that some of the new proposals were intended to rectify that. In general, the Committee sought to act in relation to the key issues in the area.

Further details are provided in the subsections below, in relation to individual proposals, and other recommendations of the Committee.

Recommendation

That the Residents' Committee Traffic Management Scheme shown in Appendix D, is adopted as the local area traffic management plan for the area.

5.2.1 Road Hierarchy

The process of developing a traffic management strategy initially involves reviewing and agreeing on the road hierarchy network, as set out by QED in this case (Sect. 3.5).

In general the Committee was supportive of the outcomes of the QED study. However there was considerable sensitivity in relation to Fife Street and Birch Street, and Ledger Road north of Glenlossie Street. Each of these roads / roads sections, were proposed as Distributor Roads in the QED report.

The concerns in respect of those streets related to the presence, or potential presence, of large commercial vehicles travelling to and from Beverley, and traffic speeds.

The Committee was strongly of the view that the objectives for Distributor Roads were incompatible with the abutting residential land use along those roads / road sections.

Recommendation

That Collector Road status be assigned to the following:

- ***Ledger Road north of Glenlossie Street***
- ***Birch Street***
- ***Fife Street***
- ***Oval Avenue***

That Distributor Road status is assigned to Ledger Road south of Glenlossie Street.

That appropriate Distributor Road routes be developed east of Ledger Road, north of Glenlossie Street and south of Birch Street, along adjoining roads in Beverley, to ensure a compatible arrangement of road function with abutting land use and road infrastructure.

5.2.2 Oval Avenue / Koolunda Avenue

Oval Avenue was the focus of significant discussion amongst Resident Committee members. Various solutions were considered, primarily to impose speed restraint and to avoid the diversion of traffic to other streets.

With reference to Section 4.1.1, there was wide support for removing the existing median islands in the street.

There are significant physical constraints in the street. Protuberances are located at regular intervals along the east side of the carriageway, and also opposite junctions. Within these protuberances there are stobie poles which would be expensive to relocate. It is also apparent that significant Telstra infrastructure exists along the west side of the road with numerous large pits located close to junctions. These factors are likely to mean, for example, that the installation of roundabouts would be quite expensive and possibly cost prohibitive.

Regularly spaced treatments are generally inappropriate for Oval Avenue, which is the central north-south Collector Road within the area. A further limitation was the need to avoid treatments, which would result in a reduction in the availability of car parking along these streets.

Consequently Junction Modification treatments (as per Fig 5.7 Austroads GTEP Pt 10 – 'Calming') have been proposed, at approximate 200 metre intervals, at the intersections of Glengarry Street and Gleneira Street. An example is shown for the Glengarry Street / Oval Avenue intersection, in Appendix E.

In addition, it is proposed new (raised) medians be installed at the Oval Avenue intersections of Glenrowan Road and Glenhuntley Street. This is to ensure the continued control of traffic movements at these intersections, after the removal of the existing median islands in Oval Avenue.

Both medians and Junction Modification treatments (see Appendix E) will improve safety and accessibility for pedestrians. This will be of some importance when patrons arrive and leave the Woodville Oval complex. Such facilities are also of great assistance to elderly pedestrians, and it is noted that the proportion of Woodville South residents who are older than 65 years of age is 24%, compared to the average for the City of Charles Sturt of 18%.

It was considered appropriate to treat Koolunda Avenue in the same manner as Oval Avenue. In this case, Junction Modification devices have been proposed at the intersections of Headdey Court and Short Street.

Oval Avenue is a bicycle route under the Council's strategic bike plan. Under that plan, no specific treatments are required for cyclists in the street. The removal of the regular island 'squeeze points' will assist, although two new narrowings (Junction Modifications) would be implemented under the proposed scheme. Therefore on balance, and also considering a reduction in vehicle operating speeds, conditions should improve for cyclists.

5.2.3 Cedar Avenue

Cedar Avenue was the subject of numerous concerns, generally in relation to the location of the kindergarten.

Two treatments have been proposed. In order to limit entry speeds from Koolunda Avenue, it is proposed to 'square up' the intersection of Koolunda Avenue and Cedar Avenue (see Appendix E).

A Mini Roundabout is proposed at the intersection of Cedar Avenue and Oval Avenue (see Appendix E), primarily due to the crash history at that intersection (Sect. 4.3). The roundabout will also lower vehicle speeds in the near vicinity (for Oval Avenue traffic), which should also improve safety for pedestrians crossing Oval Avenue.

5.2.4 Fife Street

Residents have reported significant and concerning incidents at the intersection of Fife Street and Wharfe Street including vehicle rollovers and out if control vehicles leaving the road, which apparently were not reported to the Police, and hence not listed in collision records. It is difficult for vehicles from properties located in the vicinity of the intersection, to safely reverse onto Fife Street under existing conditions. Also vision (sight distance) to the east is limited for traffic exiting from Wharfe Street at the intersection, due to the boundary fences etc, of the property located on the southeast quadrant of the intersection. As a result of these issues a roundabout has been proposed at the intersection of Fife Street and Wharfe Street (see Appendix E).

The Residents' Committee did appreciate that the road humps in Fife Street (and Glenavon Street) were a contributor to the displacement of traffic to other streets in the area e.g. 'Glen' streets. However the Committee was strongly opposed to the removal of the road humps. There is little doubt that traffic volumes would grow significantly if the road humps were removed, and given the adjacent industrial suburb of Beverley, any growth would include large commercial traffic.

5.2.5 Birch Street

Whilst there was a strong desire to 'calm' Birch Street as a Collector Road the treatment choices are limited. Equally, the opportunities in the street to introduce appropriate traffic control devices are very limited.

Therefore, Entry Thresholds have been proposed at either end of the street, to reinforce the residential nature of the street to drivers (see Appendix E). If site conditions will allow, raised thresholds devices would be desirable.

Whilst the Committee was prepared to accept Collector Road status for Birch Street, it sought to limit its use by large commercial vehicles wherever possible. One such opportunity within the control of the Council was though limiting the use of the street by its own 'heavy' vehicles.

Recommendation

That 'heavy' Council vehicles from the depot in Toogood Avenue, do not use Birch Street.

5.2.6 Ledger Road

Resident submissions highlighted concerns for traffic speeds along the south section of Ledger Road in particular, which were verified by traffic surveys.

Ledger Road is located on the boundary of the residential area of Woodville South and the industrial area of Beverley, and accordingly is subject to numerous conflicting influences. The road needs to be accessible to large commercial vehicles and as such it is difficult to restrict traffic speeds.

Two isolated 'Slow Point' traffic control devices have been proposed (see Appendix E). With appropriate attention to detail, including appropriate delineation but limited channelisation, such devices can have a beneficial (but modest) impact on vehicle speeds without restricting commercial vehicle operations.

5.2.7 'Glen Streets' & Findon / Glenrowan Intersection

Driveway Entry devices are proposed in Glengarry Street, Glenhuntley Street and Gleneira Street. An example of the layout of the treatment at the Gleneira Street intersection is shown in Appendix E. In association with those treatments, it is proposed right turns be prohibited from Findon Road into Glenrowan Road.

The objectives of the proposals are:

- speed control along Glengarry Street, Glenhuntley Street and Gleneira Street;
- the discouragement of through traffic; and
- to avoid the displacement of traffic amongst these streets.

The Driveway Entry's are proposed on the west side of Connor Avenue to avoid a 'through route' being established along Connor Avenue, and Glenrowan Road east of Connor Avenue. In association with this it is noted that better opportunities exist on the west side of Connor Avenue considering the locations of residential driveways and stormwater drainage.

There were other influences in relation to the alternatives and development of these proposals. Glenrowan Road has what could be described as a limited collector road function, given the signalised intersection at Findon Road, which had to be considered. The signals assist local residents gain access to the arterial road network, in a safe manner. It was also apparent that Glenrowan Road was very difficult to 'treat' in an appropriate manner.

An alternative treatment of mini roundabouts at the Connor Avenue intersections of Glengarry Street, Glenhuntley Street and Gleneira Street, was considered but rejected by the Residents' Committee. Whilst these would have achieved a reasonable level of speed control, the Committee has sought to significantly limit the incidence of through traffic. It is not possible to construct standard roundabouts at these intersections due to the limited road reserve area.

(Also see Section 7.4)

5.2.8 Glenavon Street

A Driveway Entry device is proposed at the intersection of Glenavon Street and Grampian Street (see Appendix E). This was conceived as an alternative treatment to the 'unsightly' road humps and associated signs in Glenavon Street, west of Oval Avenue.

The treatment is expected to have other benefits, including limiting the potential for the use of:

- Connor Avenue to avoid the proposed new treatments along Oval Avenue;
- Grampian Street and Glenlossie Street, as a through route, to avoid road humps and other treatments along Fife Street and possibly the southern section of Oval Avenue (there is some evidence of such a route in the resident submissions).

(Also see Section 7.4)

5.2.9 Connor Avenue

Whilst no treatments are proposed along Connor Avenue, as discussed above, there is a possibility that traffic may choose this road to avoid the proposed new treatments along Oval Avenue, and also because the give-way controls at the Glengarry Street, Glenhuntley Street and Gleneira Street intersections, will be 'reversed'.

The concern for a new through route along Connor Avenue is considered to be relatively minor concern and accordingly no treatments are warranted. There are very few house frontages or conflicting driveways along the road and therefore if necessary the street could be readily treated with devices such as road humps.

Recommendation

That traffic conditions be monitored along Connor Avenue after the installation of the treatments along Oval Avenue and in the 'Glen' streets.

5.2.10 Branwhite Street

Numerous concerns were raised regarding road safety and congestion at the intersection of Branwhite Street and Crittenden Road, due to traffic associated with the Chinese Language School, which operates each Saturday. Accordingly, it has been proposed to prevent right turns at the intersection of Branwhite Street and Crittenden Road.

In addition, it would be worthwhile for the Council to formally notify the school of the concerns that have been received from the local community and request the school to consider what it can do to improve conditions. The options that could be considered by the school include improved access to and availability of on-site parking, and the staggering of class times.

It would be appropriate to involve the Department of Energy & Infrastructure in relation to these issues.

Speeding was also a significant concern of residents in the street, prompting the proposal for a mini roundabout at the intersection of Tunbridge Street. Traffic control at the intersection of Rollands Street is also poor and should be upgraded.

Recommendation

That Council formally notify the Chinese Language School of the concerns that have been received from the local community and request it to consider what can be done to improve conditions.

5.2.11 Area Parking Controls - QEH Redevelopment

With reference to Section 4.3.2, the existing parking controls are considered to be too restrictive in some cases and also, parking problems are expected to be exacerbated by the redevelopment of the QEH complex.

Some of the existing parking controls were established as a result of parking problems associated with SANFL football matches in the past. The Residents' Committee was of the view that since the local football teams (Port Power and Adelaide Crows) entered the Australian Football League (AFL), the existing parking controls were unnecessary or excessive in some instances, and needed to be reviewed.

However, given the anticipated parking problems associated with the redevelopment of the QEH, the dilution of parking controls was considered to be inappropriate until the completion of the redevelopment. In addition, the Residents' Committee was strongly of the view that a comprehensive temporary (for course of the redevelopment) parking and access plan should be developed and would consider options such as:

- the Workplaces Travel Program, promoting alternatives to car travel to the QEH, particularly amongst staff;
- a bus loop between the QEH and a temporary parking facility at the Cheltenham Race Course;
- angle parking on Findon Road, north of Woodville Road;
- temporary rubble car parks within the Port Road median (if this does not conflict with planned drainage work within the median).

Recommendation

That Council request the Queen Elizabeth Hospital (QEH) to prepare a comprehensive temporary parking and access strategy, in association with the redevelopment of the QEH, to ensure residents are not subjected to further parking problems in the surrounding streets.

That the existing parking controls be reviewed after the redevelopment of the QEH but remain unchanged until then.

5.2.12 Safe Routes to School Program

In September 2005 the State Government announced an extension in the Safe Routes to School program across South Australia.

Under the program school communities work with the Department of Energy & Infrastructure and Council traffic staff to identify and reduce local road hazards to children. The outcomes of Safe Routes to School programs often include such initiates as safety fencing at road crossings, warning signs, pedestrian ramps or improvements at traffic signals.

The Woodville Primary School, and Our Lady of the Manger School Among the list of schools in the City of Charles Sturt that are to be offered the Safe Routes to School program during the 2005-06 Financial Year.

Recommendation

That the outcomes of the Safe Routes to School program are implemented in conjunction with the Woodville South Local Area Traffic Management Plan.

5.2.13 DTEI Road & Intersections

Several roads and intersections where proposals have been made are under the care and control of the Department of Energy & Infrastructure. Specifically the proposals were as follows:

1. Prevent right turns at the intersection of Branwhite Street and Crittenden Road.

   This was prompted by the numerous concerns received regarding road safety and congestion, due to traffic associated with the Chinese Language School, which operates each Saturday.

2. No right turn to Glenrowan Road from Findon Road (south).

   This was to ensure the proposed controls in Glengarry Street, Glenhuntley Street and Gleneira Street, did not result in substantial diversion of traffic to Glenrowan Road. This proposal may also result in an improvement in the capacity of the Findon Road / Woodville Road intersection as result of better traffic signal phase options.

3. Reconstruction of the Port Road / Oval Avenue Intersection.

   The DTEI has a comprehensive proposal for the reconstruction of the intersection. In view of the crash history and congestion at the intersection the upgrading the intersection was considered to be important.

Recommendation

That Council write to the Department of Energy & Infrastructure requesting agreement to and the implementation of the proposals outlined above.

5.3 Other Issues

5.3.1 Lighting

Several residents expressed concern over the adequacy of lighting throughout the precinct and with particular reference to:

- Fife Street (at road humps)
- Glengarry Street
- Glenrowan Road
- Grampian Street (due to trees)
- Oval Avenue (islands)

Council should review these locations relevant to the normal standard of lighting accepted in residential areas.

5.3.2 Footpaths & Road Construction

The following locations should be reviewed by Council for early intervention and remediation as part of its ongoing footpath and road management strategies:

- Birch Street
- Branwhite Street (Crittenden - Tunbridge)
- Cedar Avenue (footpath and kerbing)
- Crittenden Road (Birch – Bernard, #110, #150)
- Glenavon Street (trees lifting footpath, cracked at #41)
- Gleneira Street (#16, 18, 36, 40, 48) - Kerbing at Findon end in poor condition
- Glengarry Street (east end, #47)
- Glenlossie Street (Grampian – Connor)
- Glenrowan Road
- Grampian Street
- Headdey Court (due to sunken service pit, #3
- Ledger Street (near Woodlands due to trucks, hedge obstruction also)
- Oval Avenue (also obstructed by trees branches / hedges etc)
- The Circuit (#24)
- Woodville Road (Glenrowan – QEH).

5.3.3 Landscaping

The Residents' Committee was strongly in favour of establishing and / or maintaining landscaping in relation to existing and proposed traffic control devices in the area.

Reputable guidelines indicate that carefully planned landscaping can:

- enhance safety and environmental benefits by reducing driver perception that the area is for high speed through traffic movement[2];
- reinforce the idea to drivers that the street is special and different to a traffic route, as well as reinforcing the local nature of the area and the local function of the street, and that the omission of landscaping might not necessarily increase the safety of the installation e.g. if approach speeds are increased as a result[3];

[2] Section 8.1 Landscaping and Road Furniture, Austroads Guide to Traffic Engineering Part 6.
[3] Austroads Guide to Traffic Engineering Practice Part 10, Local Area Traffic Management, Section 6.1.10.

- foster greater acceptance of LATM treatments by residents and its omission could jeopardise the longer term program, especially if the results are perceived as being excessively utilitarian[4].

Recommendation

That both new and existing traffic control devices are landscaped wherever possible, in a safe manner e.g. sufficiently low so as not to obstruct vision of children, and as prescribed by relevant standards and Codes of Practice.

[4] Austroads Guide to Traffic Engineering Practice Part 10, Local Area Traffic Management, Section 3.3.4.4.

6. Community Feedback

Further to the endorsement of the draft Traffic Management Scheme by Council for community review in February 2006, community feedback was sought (refer Section 3.8). Overall, responses were received from a total of 38 residents / ratepayers (including joint submissions). The questions and summarised responses are listed in Appendix F.

This section reviews the feedback received from the community. Where necessary, the comments made have been discussed.

It is noted that in seeking community feedback:

- respondents were asked to assess the traffic management scheme in general, and the primary physical proposals;
- respondents were not asked to consider other recommendations specifically but had every opportunity to comment on them;
- responses were not necessarily provided to every question.

6.1 Traffic Management Scheme - Overall

Draft Recommendation

That the Residents' Committee Traffic Management Scheme shown in Appendix D, is adopted as the local area traffic management plan for the area.

Level of Community Support

82% support was received in the community feedback.

65% of respondents indicated that the plan addressed all of their concerns. This is in fact a very supportive result. Members of the community will obviously have numerous traffic management desires. Also, a wide cross-section of issues were raised in the responses received during the initial call for comment (refer Section 4.1). As such, an affirmative result to such a question would not always be expected.

Suggested Amendment to Recommendation

For a scheme that includes numerous treatments which will have a significant impact on traffic conditions in the area, which often give rise to controversy, these results indicate strong support for the nature of the scheme and general approach.

No change to the scheme, of a general nature, is considered to be necessary.

6.2 Traffic Management Scheme – Individual Treatments

Draft Recommendation

(Within the scheme there were a number of individual proposals and these were the main focus of the community feedback questionnaire).

Level of Community Support

With reference to the details in Appendix F, support for individual treatments was generally strong, ranging from 81% to 100%.

Strong opposition was received from 2 residents concerning a number of issues and particularly drainage, in relation to the Driveway Entry devices proposed in the Glen' streets. This issue needs to be well considered during the detailed design process.

Suggested Amendment to Scheme

In general no change is considered to be necessary in relation to the individual recommendations.

6.3 Other Recommendations

Respondents were not asked specifically to comment on other draft recommendations, including.

- Road Hierarchy
- Birch Street - heavy vehicle use
- Connor Avenue - monitoring
- Branwhite Street - Chinese Language School
- Area Parking Controls - QEH Redevelopment
- Safe Routes to School Program - Safe Routes to School program
- DTEI Road & Intersections
- Landscaping
- Statutory Obligations
- Concept Designs
- Design Issues
- Staging

However, in general, limited or no adverse comment was provided in relation to these recommendations, and as a consequence no changes are proposed.

6.4 Other Issues

The following issues were raised and considered to be important.

6.4.1 Siena College

Concern was expressed by several respondents concerning the anticipated merger of 3 primary schools to (and removal of high school from) the Siena site located between Almond Avenue and Crittenden Road.

The use of the site is subject to development controls and it is understood these have been (or will be) satisfied. Conditions around schools are generally slow and congested during school travel periods, and whilst this can cause short term inconvenience, safety conditions are often of a high standard for traffic in general.

In relation to pedestrian safety, it is noteworthy that the Safe Routes to School program is being implemented at the school this year. It is equally important to note that the program is being implemented in conjunction with the TravelSmart "Households in the West' program this year. This program is effectively aimed at limiting 'car dependence' and therefore desirable at the site. As a consequence no other recommendations are considered to be necessary at this time.

6.4.2 Branwhite Street

Further consideration has been sought despite the proposals in the traffic management scheme.

Recommendation

That a parking restriction be installed on the east side of Branwhite Street, nominally 30m north of the Crittenden Road intersection, to reduce congestion at the intersection.

6.4.3 Oval Avenue

Some respondents requested alternative arrangements of the proposed traffic management treatments in Oval Avenue, or additional treatments.

The proposed arrangement provides for a uniform spacing of treatments along the street. The suggested alternatives would not achieve this.

Additional treatments would, to a degree, negate the hierarchy of the street as a collector road, and may also cause traffic to divert to Koolunda Avenue.

Consequently, no adjustment of the advertised scheme is proposed.

6.5 Summary

Overall, there was strong support for the recommendations.

As stated above, for a scheme that includes numerous treatments which will have a significant impact on traffic conditions in the area, which often give rise to controversy, the community feedback has indicated strong support for the proposals and recommendations.

As a result of the responses:

- it is emphasised that drainage needs to be well considered during the detailed design process, in relation to all devices, but particularly the proposed Driveway Entry's in the Glen' Streets ;
- an additional proposal for parking restrictions in Branwhite Street has been recommended at the Crittenden Road intersection.

7. Implementation

7.1 Statutory Obligations

The Council is obliged under the Road Traffic Act, to abide by specific requirements in relation to the implementation of traffic control devices. These are listed under the Minister for Transport and Urban Planning Notice to Council - Traffic Control Devices and Road Events under the Road Traffic Act 1961 (12 March 2001). Parallel requirements also exist in relation to such devices as parking control signs.

In general terms, the Minister's notice delegates the authority to install certain traffic control devices to Councils, provided the design conforms to the Code of Technical Requirements for the Legal Use of Traffic Control Devices.

However, there are numerous other traffic control devices which are used from time to time which the Council does not have authority to install. Some of these devices e.g. Junction Modifications and Mini Roundabouts, are proposed as part of the traffic management proposals herein. In this case the Council needs to apply for approval to the Commissioner of Highways, to install these 'excluded' devices.

A traffic impact statement also needs to be prepared for any traffic control device that is to be installed, altered or removed.

Recommendation

That Council meets its statutory obligations in relation to the implementation of any actions arising as a result of this project.

7.2 Concept Designs

Basic concept designs were prepared in some cases:

- to indicate the intended design layout;
- to confirm whether or not a treatment was likely to be feasible in a specific location; or
- to highlight any likely design or approval issues.

These are shown in Appendix E.

In terms of feasibility, the intention was to identify obvious problems. However, whilst prepared (but not presented) to scale and generally to the rules for the design of the respective devices, it is stressed that the concepts are not definite proof that the devices are feasible.

In general, only surface features have been considered. The impact of underground (hidden) utility services can present significant obstructions and the cost of relocation can be insurmountable. It is also worth noting that an accurate survey base was not available at the time of this report.

Recommendation

That following consultation, detailed designs are prepared in accordance with relevant standards and Codes of Practice, to confirm the feasibility of the proposals and as a basis for construction.

7.3 Design Issues

The process of preparing concepts did highlight some possible issues that will need to be considered at the implementation stage:

1. Roundabout at Fife Street / Wharfe Street Intersection

   From the preparation of the concept it is apparent that the standard design envelope requirement may be unable to be met, in which case approval from DTEI may be required.

   A representative of DTEI indicated sight distances might also be concern, although this was a primary reason for proposing the device in this location. As Fife Street is proposed as a Collector Road there are few appropriate options.

2. Driveway Entry at Glenavon Street / Grampian Street Intersection

   It is only possible to construct a 15 metre long (approx) Driveway Entry device in this location, which is less than the 20 metre minimum length specified in the Code of Technical Requirements.

   Accordingly, as above, the device could only be constructed with the approval of DTEI. A representative of DTEI indicated a preparedness to consider a Driveway Entry in this location provided the objectives for vision on approach and at the device, are met. There is reason to be optimistic that these objectives could be met given the substantial area for landscaping.

   In any case the device is regarded as most desirable, but is generally an isolated treatment and accordingly if approval cannot be obtained, the integrity of the overall scheme is not greatly affected. However it would mean that the proposed removal of road humps in Glenavon Street could not occur.

3. Mini Roundabout at Oval Avenue / Cedar Avenue Intersection

   The proposed Mini Roundabout at the intersection is regarded as an ideal treatment given the collision history at the site, and the status of Oval Avenue, and the limited available space at the intersection. It would appear to be feasible, but only marginally so. Substantial services exist on the north quadrant of the intersection, and a large stobie pole exists at the south quadrant of the

intersection. Another issue that may affect the feasibility of the roundabout proposal, is the crown following the Cedar Avenue alignment.

4. Mini Roundabout at Branwhite Street / Tunbridge Street Intersection

A driveway to the property at the southwest of the intersection is directed to the road within the intersection. As a result, this proposal will only be possible subject to agreement being reached with the property owner regarding the relocation of the driveway.

5. Oval Avenue and Koolunda Avenue Controls

Large buses are used to transport people to the Woodville Oval complex on occasions. Whilst the proposed controls in Koolunda Avenue and Oval Avenue may obstruct some routes of access for such vehicles, the Residents' Committee was confident that bus access could be accommodated within the area provided appropriate routes were communicated to bus companies/drivers. It would be appropriate to consult representatives from the Woodville Oval complex in regard to this aspect.

6. Junction Modifications in Oval Avenue and Koolunda Avenue

Junction Modification devices (Fig 5.7 Austroads GTEP Pt 10 – 'Calming') are proposed in Oval Avenue and Koolunda Avenue. It is proposed these treatments be prepared to the design criteria for standard roundabouts (e.g. Standard Design Envelope, visual aspect, entry throat width), which have proved to be successful in the design of devices such as Centre Blisters, Junction Re-arrangements and Mini Roundabouts.

However the Council does not have delegated authority to install this type of device. These were installed at Valiant Road, Holden Hill and at Cronulla Drive, Redwood Park a few years ago, and a recent review of collision data indicates that no crashes have been reported in those locations, both of which are subject to significantly higher traffic volumes than the proposed locations in Woodville South.

Regularly spaced (80 – 120m) treatments are generally inappropriate for Oval Avenue in particular. Roundabouts would represent an appropriate treatment but are likely to be cost prohibitive due to the utility service relocations. A further limitation is the need to avoid treatments that would result in a reduction in the availability of car parking along these streets.

Oval Avenue has received considerable attention and the proposals are considered to be best choice, and accordingly it is recommended preliminary designs be prepared and put to DTEI for approval.

Recommendation

That traffic control device designs are prepared and that the approval to the Commissioner of Highways is sought as required.

7.4 Staging

Recommended staging details are shown in Appendix D. Whilst generally guided by resident submissions and the Residents' Committee, there were a few imperatives:

1. The implementation of treatments in Glengarry Street, Glenhuntley Street and Gleneira Street should occur concurrently to avoid traffic being diverted to one or other of these streets

2. The implementation of the 'No Right Turn' control at the Glenrowan Road / Findon Road intersection should also be carried out the same time as the treatments in the above streets. However this will be dependent on the approval of the 'No Right Turn' control by DTEI, who manage the intersection.

   It is understood the entrance to the QEH complex adjacent the Glenrowan Road / Connor Avenue intersection, will be closed in the short to medium term. To avoid the diversion of traffic elsewhere along Woodville South streets, it is recommended that the 'No Right Turn' proposal not be implemented until the entrance is closed, or until the use of the entrance is substantially reduced.

3. The Driveway Entry device at the intersection of Glenavon Street and Grampian Street was conceived primarily as an alternative treatment to the road humps in Glenavon Street, west of Oval Avenue. Accordingly, the road humps should only be removed upon the implementation of the proposed Driveway Entry device.

Recommendation

That the implementation of the proposed scheme shown in Appendix D, be constructed in accordance with the proposed staging recommendations, and otherwise in accordance with Section 7.4.

8. Final Recommendations

8.1 Residents' Committee Traffic Management Scheme

That the Residents' Committee Traffic Management Scheme shown in Appendix D, is adopted as the local area traffic management plan for the area.

8.2 Road Hierarchy

That Collector Road status be assigned to the following:

- Ledger Road north of Glenlossie Street
- Birch Street
- Fife Street
- Oval Avenue

That Distributor Road status is assigned to Ledger Road south of Glenlossie Street.

That appropriate Distributor Road connections be developed in the longer term with appropriate connections to the north and south, along adjoining roads in Beverley, to ensure a compatible arrangement of road function with abutting land use and road infrastructure.

8.3 Birch Street

That 'heavy' Council vehicles from the depot in Toogood Avenue, do not use Birch Street.

8.4 Connor Avenue

That traffic conditions be monitored along Connor Avenue after the installation of the treatments along Oval Avenue and in the 'Glen' streets.

8.5 Branwhite Street

That Council formally notify the Chinese Language School of the concerns that have been received from the local community and request it to consider what can be done to improve conditions.

That a parking restriction be installed on the east side of Branwhite Street, nominally 30m north of the Crittenden Road intersection, to reduce congestion at the intersection.

8.6 Area Parking Controls - QEH Redevelopment

That Council request the Queen Elizabeth Hospital (QEH) to prepare a comprehensive temporary parking and access strategy, in association with the redevelopment of the QEH, to ensure residents are not subjected to further parking problems in the surrounding streets.

That the existing parking controls be reviewed after the redevelopment of the QEH but remain unchanged until then.

8.7 Safe Routes to School Program

That the outcomes of the Safe Routes to School program are implemented in conjunction with the Woodville South Local Area Traffic Management Plan.

8.8 DTEI Road & Intersections

That Council write to the Department of Energy & Infrastructure requesting agreement to and the implementation of the proposals outlined above.

8.9 Landscaping

That both new and existing traffic control devices are landscaped wherever possible, in a safe manner e.g. sufficiently low so as not to obstruct vision of children, and as prescribed by relevant standards and Codes of Practice.

8.10 Statutory Obligations

That Council meets its statutory obligations in relation to the implementation of any actions arising as a result of this project.

8.11 Concept Designs

That following consultation, detailed designs are prepared in accordance with relevant standards and Codes of Practice, to confirm the feasibility of the proposals and as a basis for construction.

8.12 Design Issues

That traffic control device designs are prepared and that the approval to the Commissioner of Highways is sought as required.

8.13 Staging

That the implementation of the proposed scheme shown in Appendix D, be constructed in accordance with the proposed staging recommendations, and otherwise in accordance with Section 7.4.

Appendix A

Community Circular

CITY OF
CHARLES STURT

Local Area Traffic Management Review
Woodville South

Council is reviewing traffic and road safety in the ***Woodville South*** area bounded by:

- Port Road
- Findon Road
- Crittenden Road
- Ledger Road and Birch Street

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 Woodville South 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 Woodville South.

Ultimately, Council requires a concise LATM plan for the ***Woodville South*** 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
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 ***Woodville South*** 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 8273 3100.

CITY OF
CHARLES STURT

Woodville South LATM

Community Survey

Name: _____ Address: _____

Please identify any traffic and road safety concerns you have in the area.

☐ Speed of vehicles ☐ Parking Arrangements ☐ Bicycle Facilities ☐ Footpaths ☐ Road Lighting ☐ Road Safety ☐ Other
☐ Traffic Noise ☐ Traffic Volumes ☐ Street Environment ☐ Property ☐ Activities associated with land use

Locations and Issues: (*eg. cracked footpath on the corner of Ledger & Dee Streets*)

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

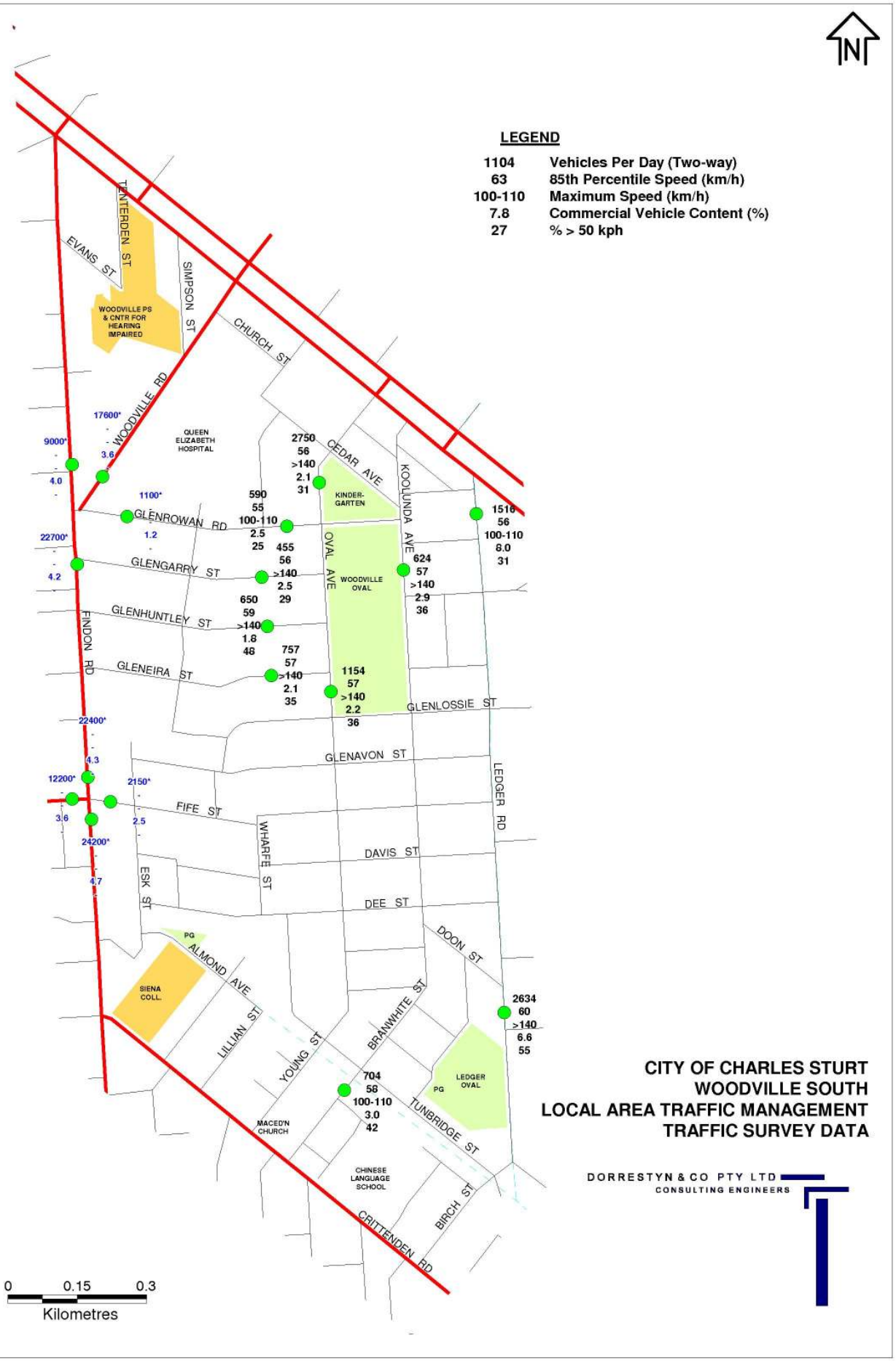
What solutions or opportunities do you think could be considered to resolve the issues you have identified?

Solutions/Opportunities

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.

Appendix B

Speed and Volume Data



CITY OF CHARLES STURT
WOODVILLE SOUTH
LOCAL AREA TRAFFIC MANAGEMENT
TRAFFIC SURVEY DATA

DORRESTYN & CO PTY LTD
CONSULTING ENGINEERS

Appendix C

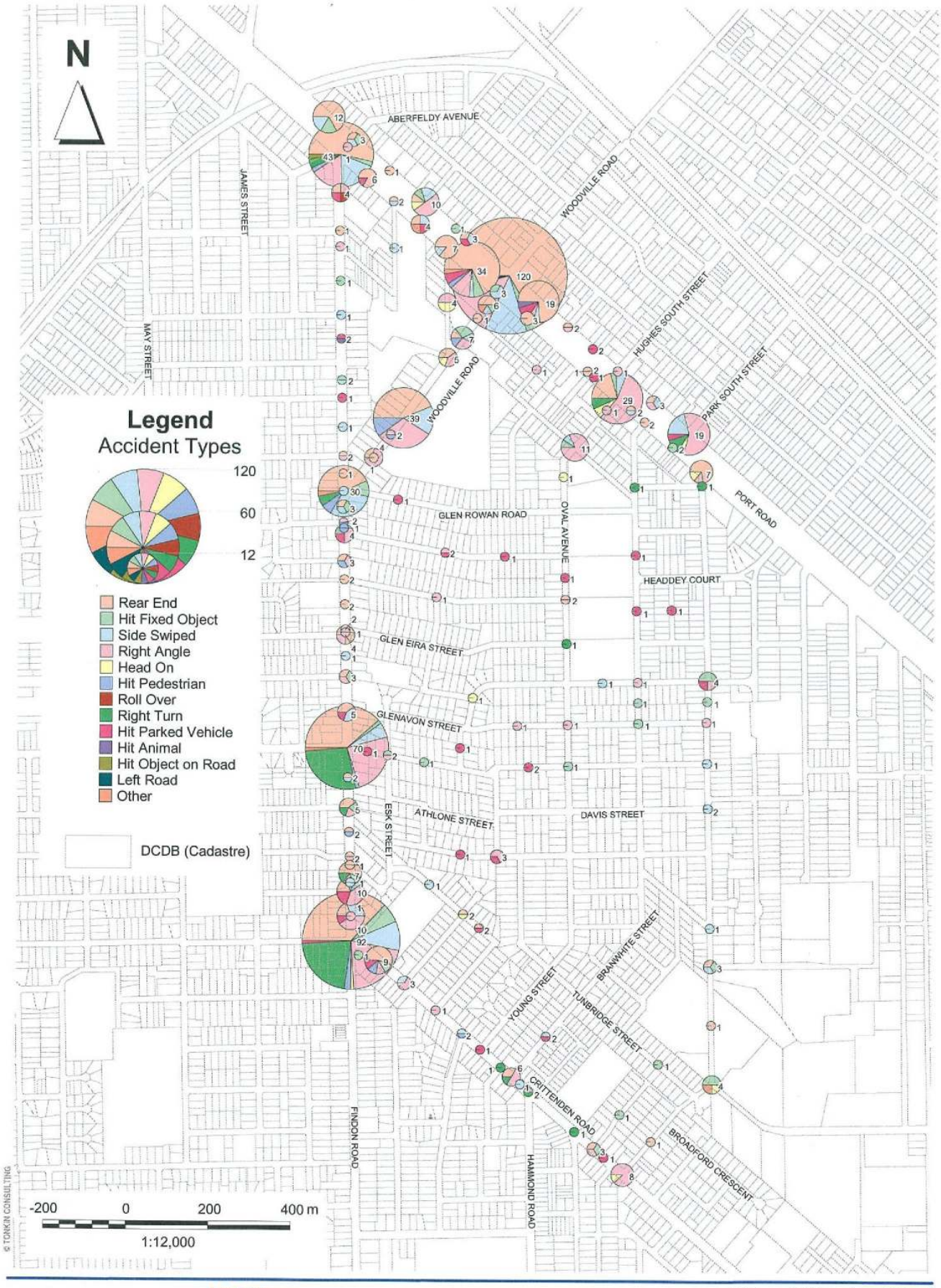
Collision Data

		Involved		Responsible	
		#	%	#	%
Unit Type	Cars & Station Wagons	119	74%		
	Motorcycle	3	2%		
	Motor Vehicle - type unknown	10	6%		
	Other	0	0%		
	Other Fixed Obstruction	13	8%		
	Panel Van	6	4%		
	Pedestrian on Road	0	0%		
	Pedestrian in Carpark	0	0%		
	Pedal Cycle	2	1%		
	Pole (not stobie)	1	1%		
	Semi Trailer	0	0%		
	Sign Post	0	0%		
	Tree	0	0%		
	Truck	1	1%		
	Utility	6	4%		
	Wild Animal	0	0%		
	Total	161	100%		
Unit Movement	Crossing Without Control	0	0%	0	0%
	Entering Private Driveway	4	2%	1	1%
	Leaving Private Driveway	7	4%	7	8%
	Left Turn	1	1%	1	1%
	Overtaking - On Right	5	3%	5	5%
	Overtaking - On Left	0	0%	0	0%
	Parked	21	13%	0	0%
	Reversing	2	1%	1	1%
	Rght Turn	13	8%	11	12%
	Stopped on Carriageway	6	4%	0	0%
	Straight Ahead	84	52%	48	52%
	Swerving	1	1%	1	1%
	Unknown	16	10%	16	17%
	Unparking - Angle	0	0%	0	0%
	U-Turn	2	1%	2	2%
	Total	162	100%	93	100%
Collision Type	Head On	6	8%		
	Hit Animal	0	0%		
	Hit Fixed Object	14	18%		
	Hit Object on Road	0	0%		
	Hit Parked Vehicle	16	20%		
	Hit Pedestrian	0	0%		
	Left Road - Out of Control	0	0%		
	Other	1	1%		
	Rear End	6	8%		
	Right Angle	24	30%		
	Right Turn	3	4%		
	Roll Over	0	0%		
	Side Swipe	9	11%		
	Total	79	100%		

		Involved		Responsible	
		#	%	#	%
	Inattention	30	23%		
	Fail to Give Way	15	12%		
	Disobey Traffic Signals	0	0%		
	Overtake without Due Care	5	4%		
	Fail to Keep Left	6	5%		
	Change Lanes to Endanger	0	0%		
	Incorrect Turn	0	0%		
	Insecure Load	0	0%		
	Disobey - Give Way Sign	1	1%		
	Excessive Speed	1	1%		
	Fail to Give Way Right	1	1%		
	Vehicle Fault	0	0%		
	Total	128	100%		
				Cost	
Severity	Property Damage Only	69	87.3%	$ 400,752	
	Minor Injury	9	11.4%	$ 123,984	
	Severe Injury	1	1.3%	$ 408,000	
	Fatal	0	0.0%	$ -	
	Total	79	100.0%	$ 932,736	
Road Condition A	Sealed	79	100%		
	Unsealed	0	0%		
	Total	79	100%		
Road Condition B	Wet	7	9%		
	Dry	72	91%		
	Total	79	100%		
Weather	Raining	3	4%		
	Not Raining	76	96%		
	Total	79	100%		
Light Conditions	Daylight	52	66%		
	Night	25	32%		
	Dawn/Dusk	2	3%		
	Total	79	100%		
Intersection Type (if appl.)	Multiple	0	0%		
	Cross Road	23	49%		
	T-Junction	22	47%		
	Y-Junction	2	4%		
	Total	47	100%		
Mid-Block Type (if appl.)	Divided Road	0	0%		
	Not Divided	32	100%		
	Pedestrian Crossing	0	0%		
	Other	0	0%		
	Total	32	100%		
Traffic Control	Roundabout	8	10%		
	No Control	57	72%		
	Give Way Sign	3	4%		
	Stop Sign	11	14%		
	Traffic Signals	0	0%		
	Total	79	100%		

		Involved		Responsible	
		#	%	#	%
	100 - 200	1	1%		
	200 - 300	0	0%		
	300 - 400	0	0%		
	400 - 500	1	1%		
	500 - 600	0	0%		
	600 - 700	2	3%		
	700 - 800	2	3%		
	800 - 900	4	5%		
	900 - 1000	5	6%		
	1000 - 1100	4	5%		
	1100 - 1200	5	6%		
	1200 - 1300	3	4%		
	1300 - 1400	8	10%		
	1400 - 1500	6	8%		
	1500 - 1600	4	5%		
	1600 - 1700	4	5%		
	1700 - 1800	5	6%		
	1800 - 1900	2	3%		
	1900 - 2000	4	5%		
	2000 - 2100	2	3%		
	2100 - 2200	3	4%		
	2200 - 2300	4	5%		
	2300 - 2400	6	8%		
	Total	79	100%		
Day of Occurrence	Monday	10	13%		
	Tuesday	15	19%		
	Wednesday	13	16%		
	Thursday	14	18%		
	Friday	9	11%		
	Saturday	10	13%		
	Sunday	8	10%		
	Total	79	100%		
Month of Occurrence	January	6	8%		
	February	2	3%		
	March	11	14%		
	April	8	10%		
	May	7	9%		
	June	6	8%		
	July	3	4%		
	August	10	13%		
	September	5	6%		
	October	7	9%		
	November	7	9%		
	December	7	9%		
	Total	79	100%		
Year of Occurrence	1999	11	10%		
	2000	17	15%		
	2001	21	19%		
	2002	21	19%		
	2003	21	19%		
	2004	21	19%		
	Total	112	100%		

		Involved		Responsible	
		#	%	#	%
	5-9	0	0%	0	0%
	10-14	1	1%	1	2%
	15-19	12	11%	8	13%
	20-29	30	28%	18	29%
	30-39	23	21%	12	19%
	40-49	14	13%	7	11%
	50-59	8	7%	3	5%
	60+	21	19%	14	22%
	Total	109	100%	63	100%
Sex	Male	73	61%	44	63%
	Female	46	39%	26	37%
	Total	119	100%	70	100%
Notes					
1. Data only relates to 'reported' incidents that occurred during the specified years.					
2. Not all details are available.					
3. The term 'Unit' applies to vehicles, pedestrians, trees, animals etc.					



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W www.tonkin.com.au

MAP DETAILS

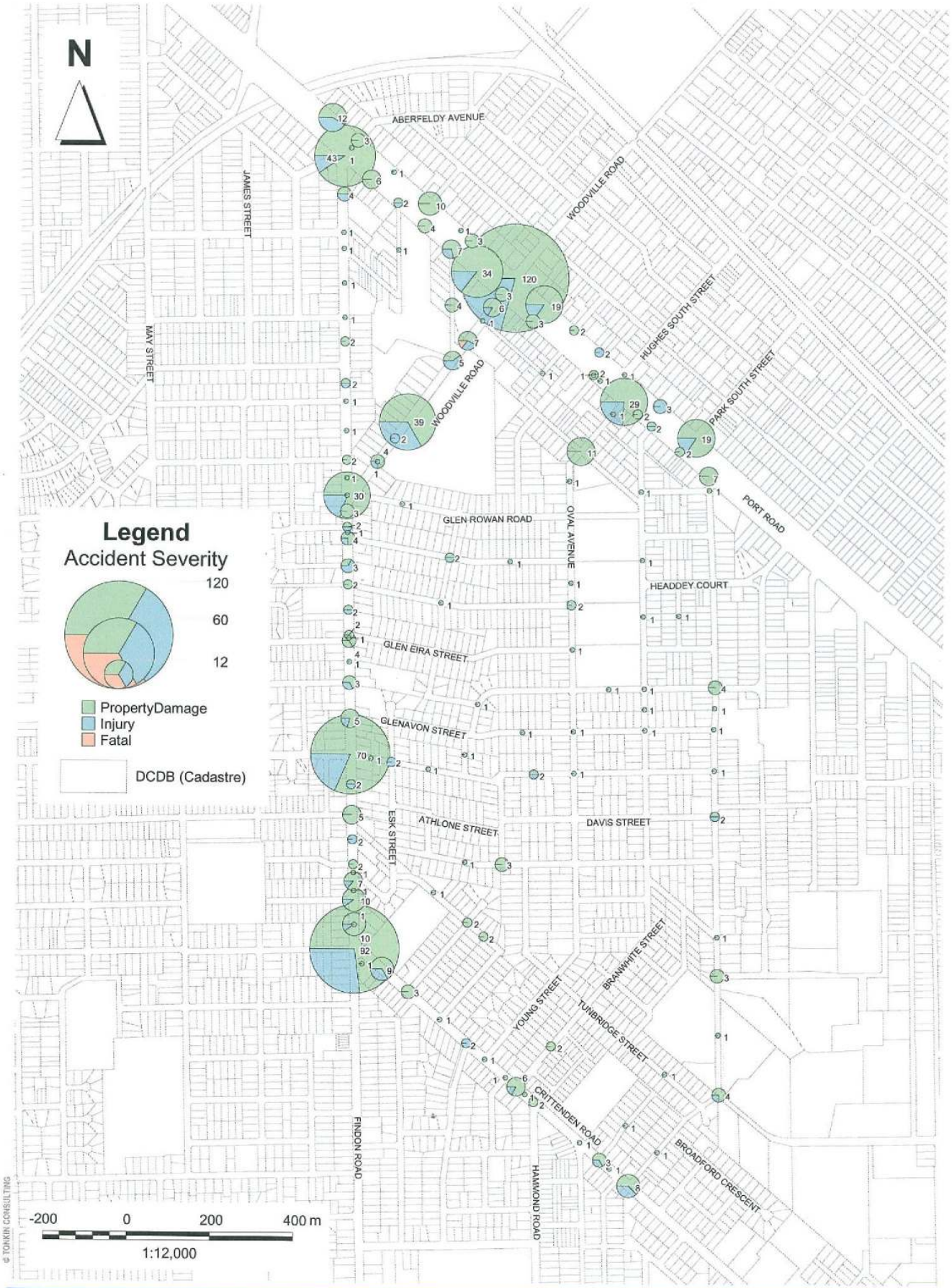
Cadastral Data:	DEH
Accident Data:	Transport SA
Job Number:	2005.0191
Filename:	Wood_Sth_Acc_Type.wor
Drawn:	Tricia de Vink
Date:	26/05/2005

City of Charles Sturt

Woodville South Traffic Study
1999 - 2004

Accident Type

Figure #.#



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MAP DETAILS

Cadastral Data:	DEH
Accident Data:	Transport SA
Job Number:	2006.0191
Filename:	Wood_Sth_Acc_Sev.wor
Drawn:	Tricia de Vink
Date:	26/05/2005

City of Charles Sturt

Woodville South Traffic Study

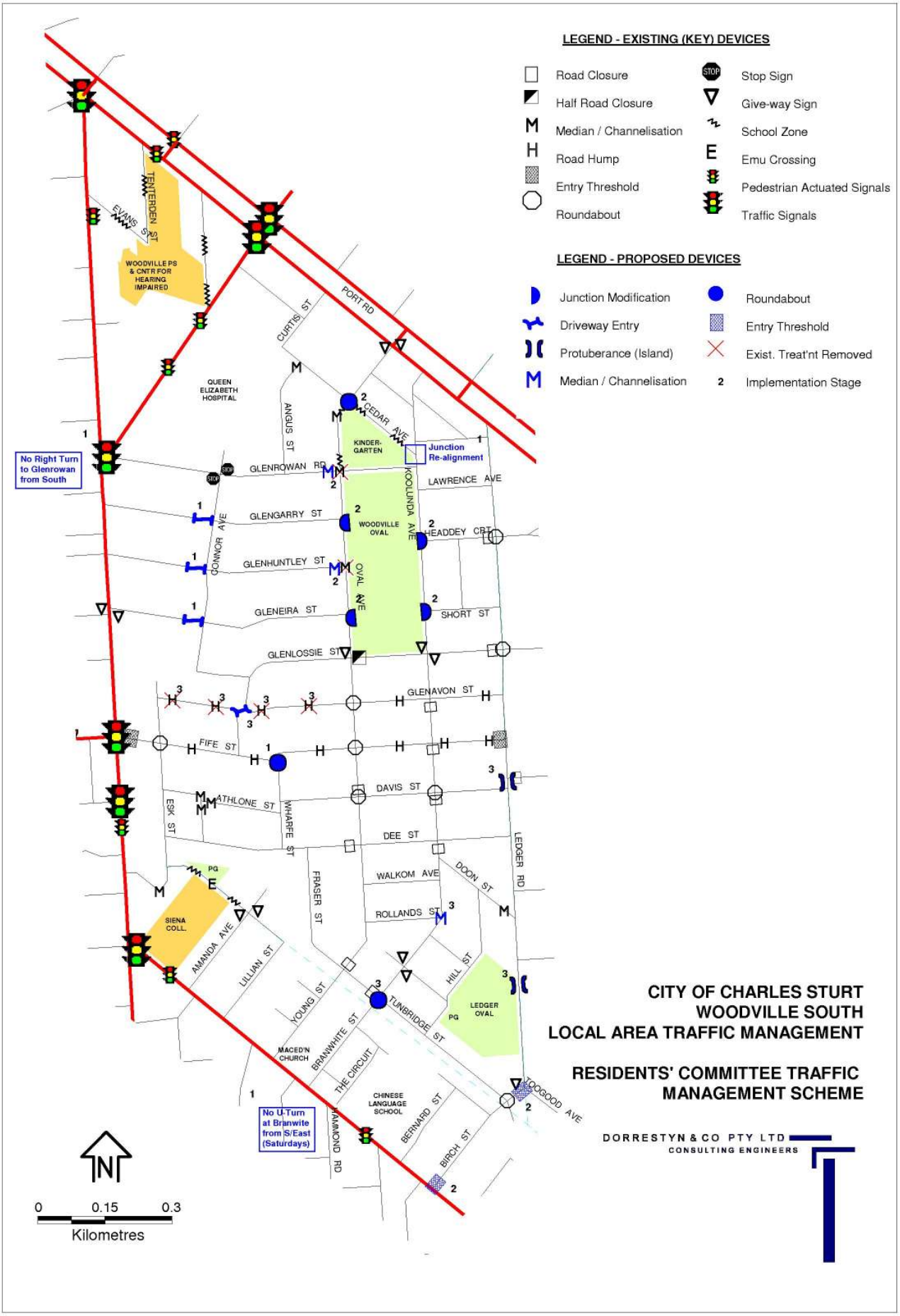
1999 - 2004

Accident Severity

Figure #.#

Appendix D

Residents' Committee Traffic Management Scheme



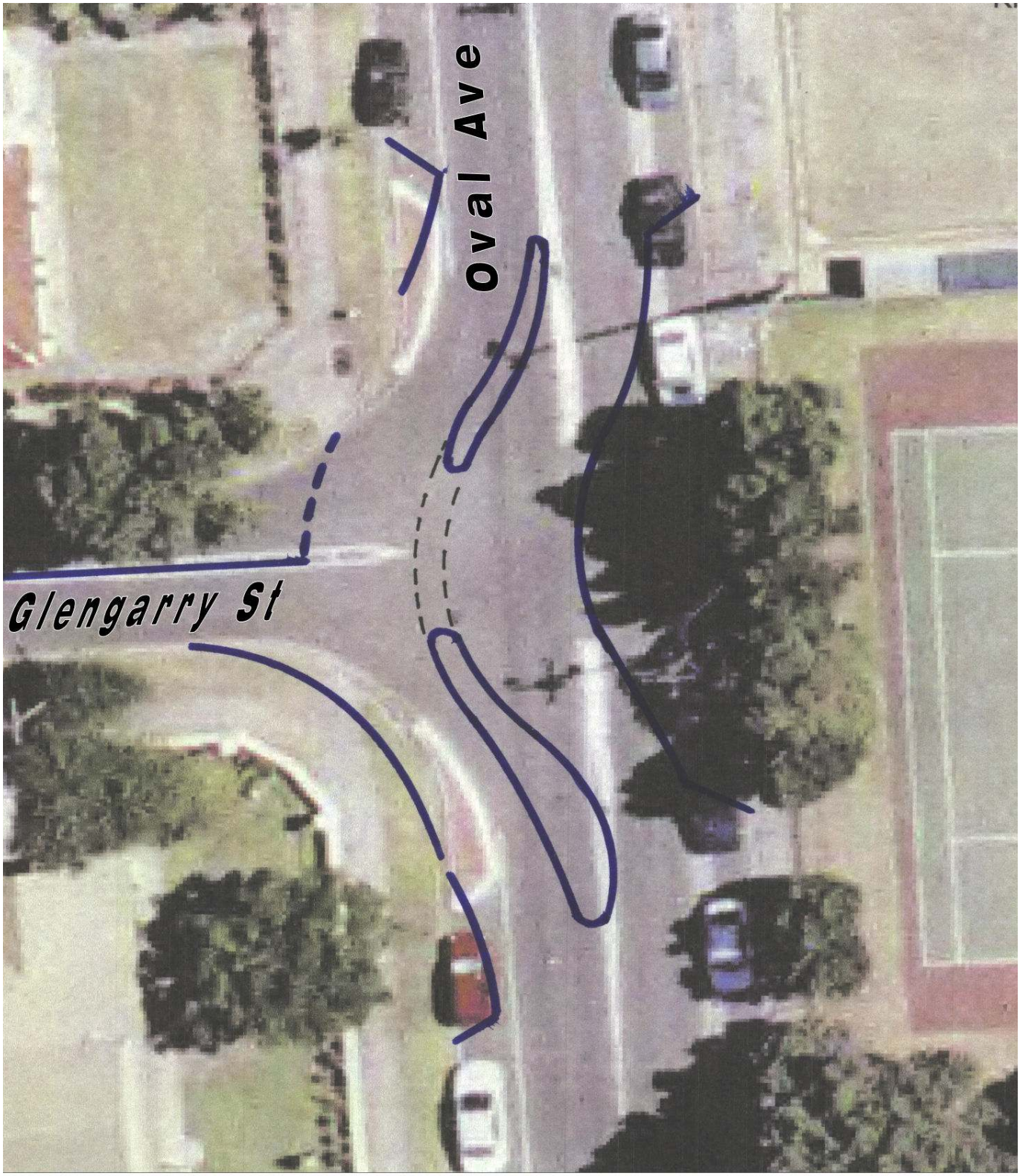
CITY OF CHARLES STURT
WOODVILLE SOUTH
LOCAL AREA TRAFFIC MANAGEMENT

RESIDENTS' COMMITTEE TRAFFIC MANAGEMENT SCHEME

DORRESTYN & CO PTY LTD
CONSULTING ENGINEERS

Appendix E

Key Devices



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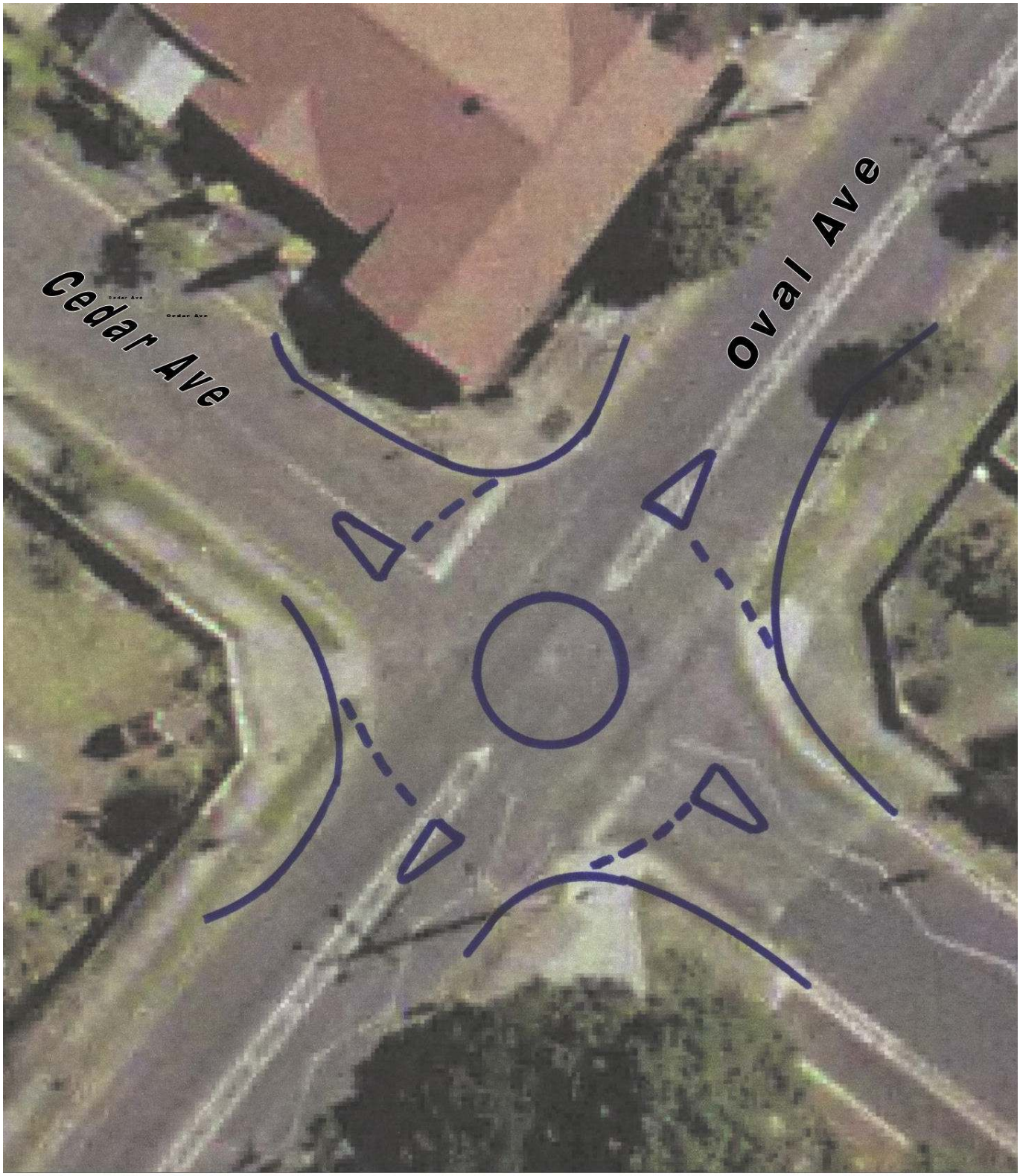
DORRESTYN & CO PTY LTD
TRAFFIC & TRANSPORT



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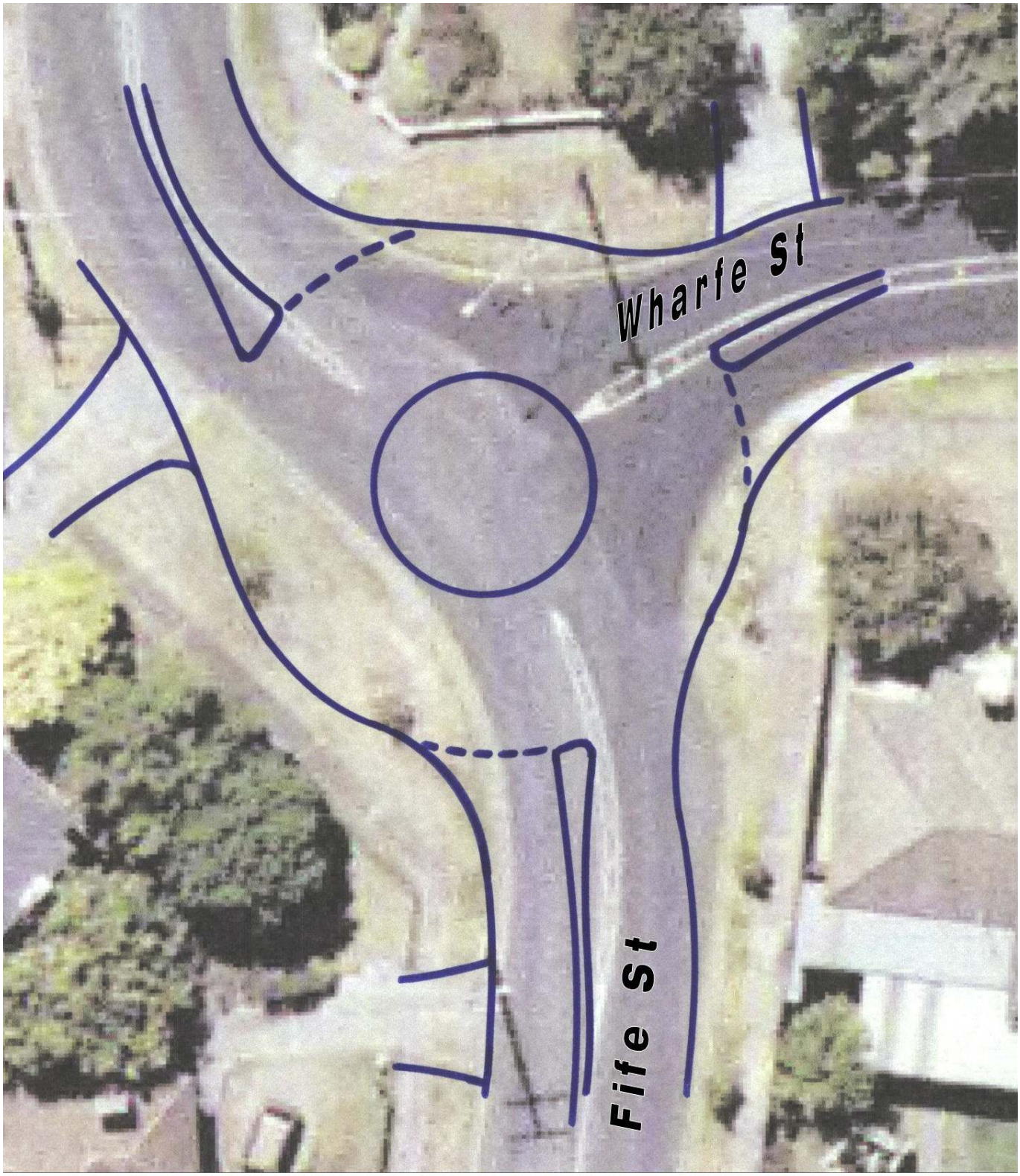
DORRESTYN & CO PTY LTD
TRAFFIC & TRANSPORT

N

DORRESTYN & CO PTY LTD
TRAFFIC & TRANSPORT



DORRESTYN & CO PTY LTD
TRAFFIC & TRANSPORT

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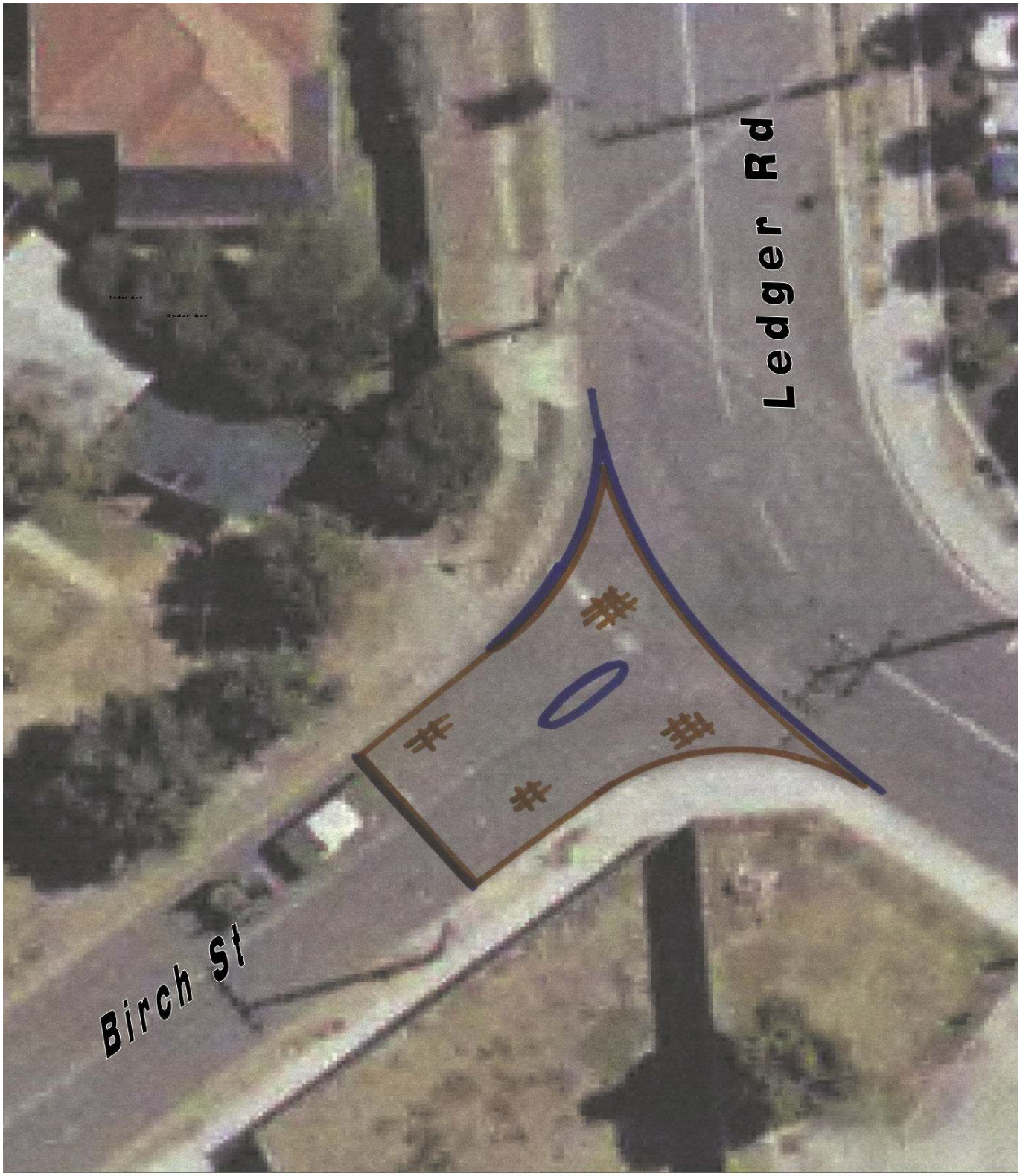

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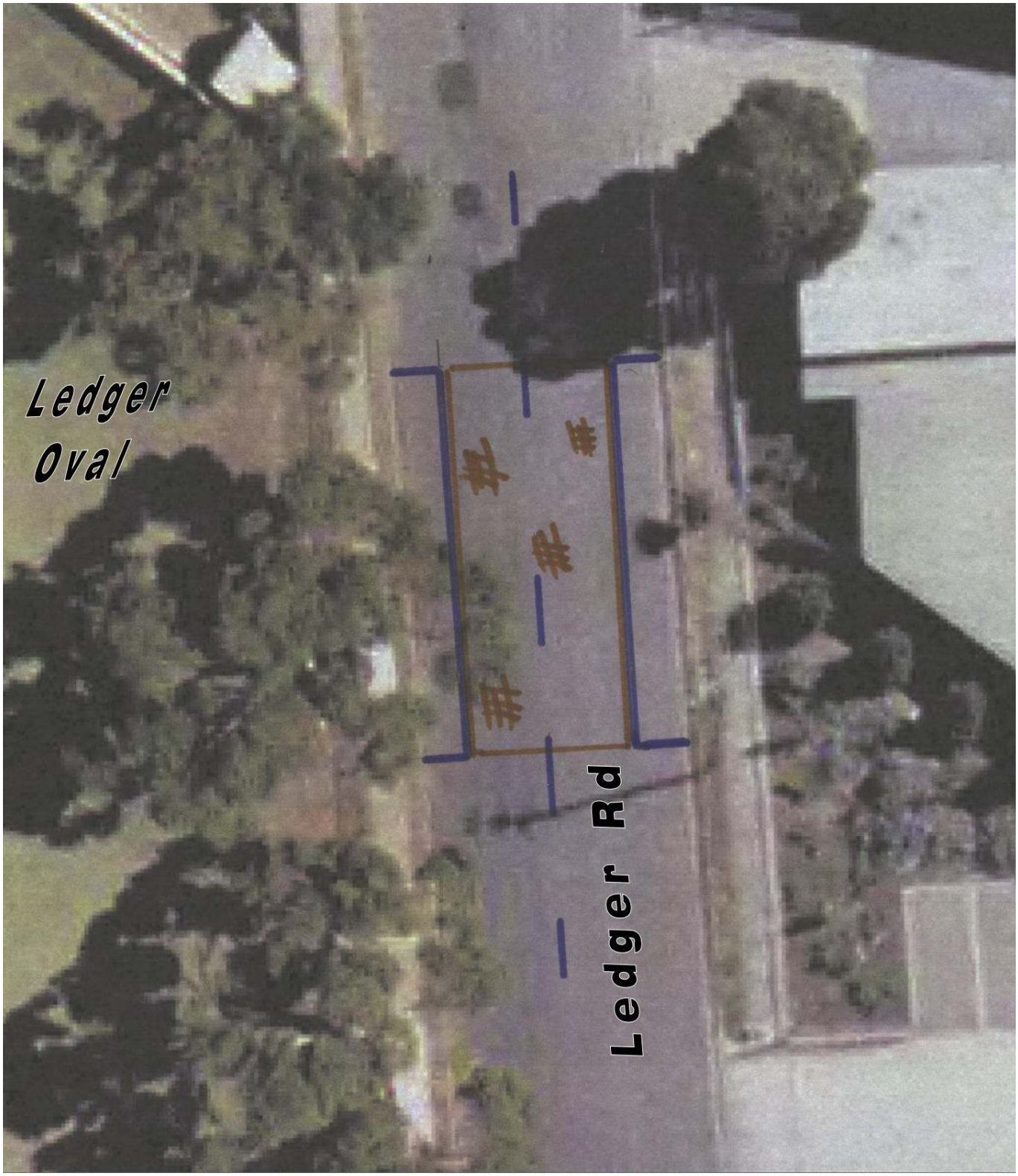
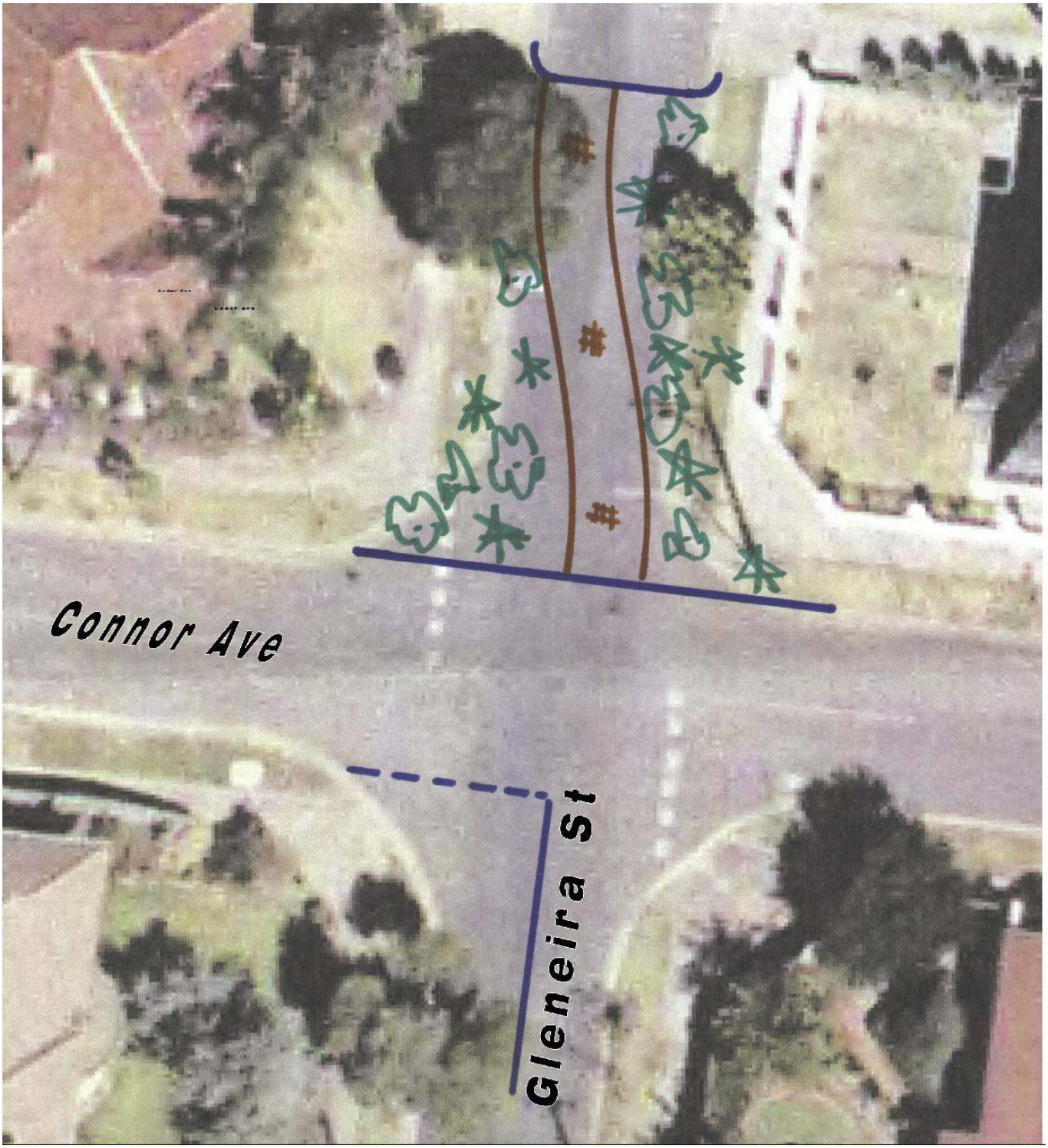
DORRESTYN & CO PTY LTD
TRAFFIC & TRANSPORT

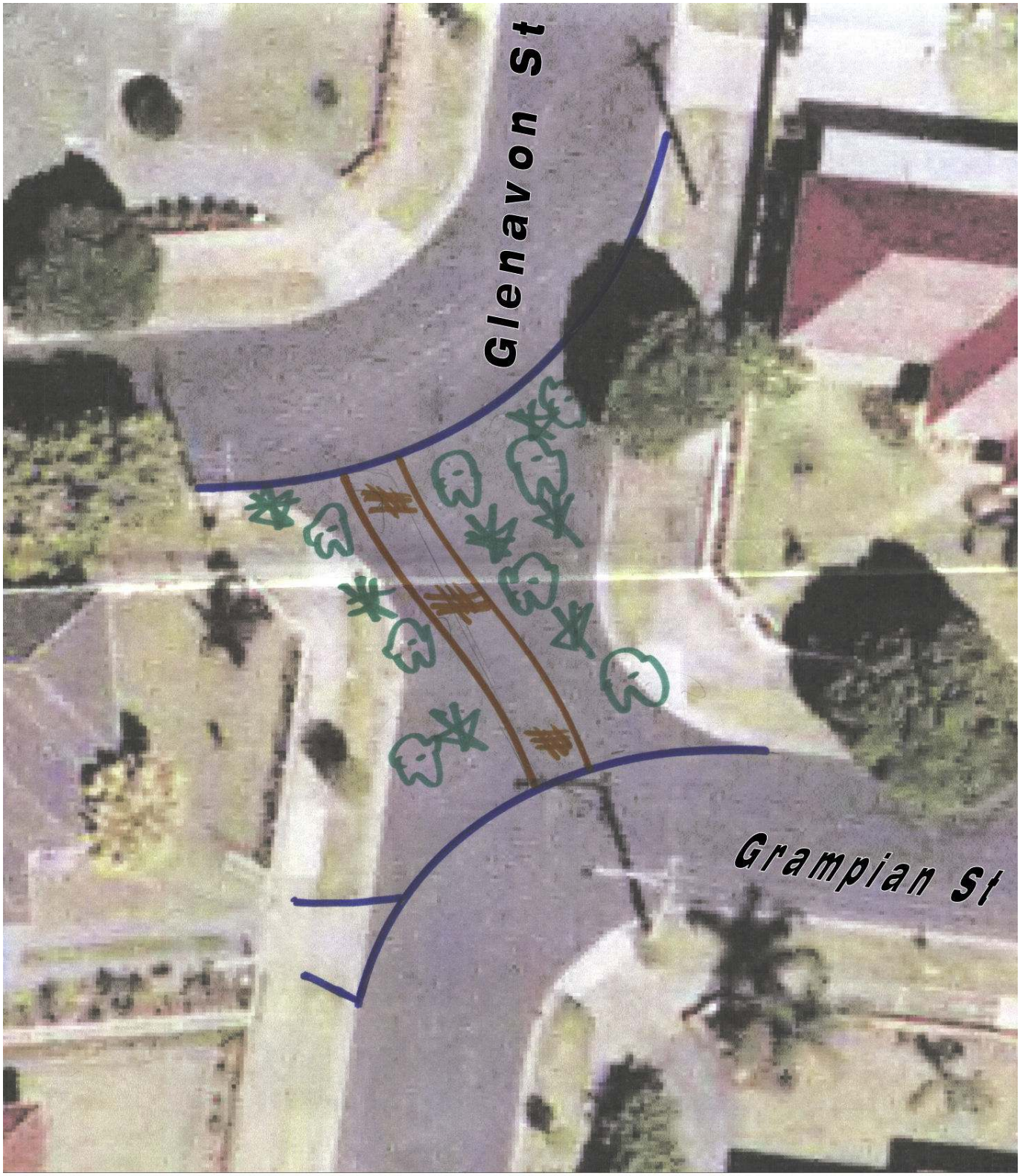


DORRESTYN & CO PTY LTD
TRAFFIC & TRANSPORT



DORRESTYN & CO PTY LTD
TRAFFIC & TRANSPORT

N



DORRESTYN & CO PTY LTD
TRAFFIC & TRANSPORT

N

Appendix F

Community Feedback Questions & Responses

	Q1	Q2	Q3	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	
				How strongly do you agree/disagree with the Report Recommendations for?															
#	Do you support draft LATM plan (Y/N)	Does draft LATM plan address your concerns (Y/N)	If (draft plan does) not address your concerns, why not?	Scheme	Angus St	Oval St	Koolunda Ave	Branwhite St	Ledger Rd	Birch St	Glenrowan St	Glengarry St	Glenhuntley St	Gleneira St	Glenavon St	Fife St	Athlone St	Doon St	Comments
1	Yes	No	Cedar/Oval proposal inappropriate due to proximity of Kindergarten	Agree	Agree	Strongly Disagree	Agree	Agree	Agree	Agree	Strongly Disagree	Agree	Agree	Agree	Agree	Disagree	Agree	Agree	Glenrowan proposal will lead to extra traffic in Glengarry
2	No	No	Issue of a lack of available street parking has not been addressed.	Disagree	Agree	Agree	Agree	Agree	Agree	Agree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Agree with removal of humps, not D/way Entry	Agree	Agree	Agree	D/way Entry would be across their entire frontage. May affect flood risk. Concerned at impact on property value; landscape maintenance; permanent nature of treatment; noise of vehicles negotiating device; limited nature of consultation.
3	Yes	Yes	Does not address his concerns regarding Findon, Port, Woodville Road's. Additional measures sought. Siena College proposals will exacerbate conditions in local area. Need 'Kiss-n-Ride' zone on School property. Concern for Esk and Fife as result of Siena development.	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Council should repair damaged fence on Simpson St immediately.
4		Partly	Seek bus shelter in front of Woodville Primary School.																Requests that Council advise what can be done to progress shelter.
5	Yes	No	Does not address concerns regarding Siena College proposals or QEH redevelopment which is already impacting area around Woodville Primary School. Does not address hazardous Port/Oval intersection.	Strongly Agree	Agree	Agree	Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Speed issues may escalate in Oval Avenue.
6	Yes	Yes		Agree		Strongly Agree		Strongly Agree	Strongly Agree							Strongly Agree			Recommend Branwhite/Crittenden No U-turn proposal apply at all times and no parking on east side of Branwhite.
7				Agree	Agree	Agree	Agree	Agree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Agree	Agree	Agree	Strongly Disagree	Agree	Agree	Agree	Opposed to Glenrowan proposal because people cannot access surgery at Findon corner, or QEH entrance along street.

	Q1	Q2	Q3	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	
				How strongly do you agree/disagree with the Report Recommendations for?															
#	Do you support draft LATM plan (Y/N)	Does draft LATM plan address your concerns (Y/N)	If (draft plan does) not address your concerns, why not?	Scheme	Angus St	Oval St	Koolunda Ave	Branwhite St	Ledger Rd	Birch St	Glenrowan St	Glengarry St	Glenhuntley St	Gleneira St	Glenavon St	Fife St	Athlone St	Doon St	Comments
8	Yes			Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Agree	Agree	Agree	Main issues are parking in Glenrowan and Glengarry, and also Glenhuntley and Gleneira. Install same restrictions (?) in Glenhuntley and then review Gleneira.
9	Yes	No	Concerned at speeding in Oval despite proposals. Suggest Junction Mod. treatment at Glenrowan also, or at Glenrowan & Glenhuntley instead.	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	
10	Yes	No	Concerned at speeding in Oval despite proposals. Suggest Junction Mod. treatment at Glenrowan also, or at Glenrowan & Glenhuntley instead.	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	
11	Yes	Yes		Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree		Agree	Agree	Would like to inspect a constructed D/way Entry.
12	Yes	Partly	Did not address issue of not being able to park in front of their own house. Need residential parking permits.	Agree	Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	
13	Yes	Partly	Did not address issue of not being able to park in front of their own house. Need residential parking permits.	Agree	Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	
14			Letter Provided. Summary comments listed only. Will not resolve the Glen' Street problems.									Strongly Disagree							Install Glen' St devices at Findon Road end instead. Proposal will frustrate drivers as they won't know devices there until they're in street. Concerned that proposal will increase likelihood of flooding. Opposed at any suggestion to use of humps in Connor Ave. D/way Entry's are unsightly and will result in lost property value. Seeking legal advice.
15	Yes	No		Agree					Agree										Stop trucks using Ledger Road.
16	Yes	Yes	Also like to see 50 km/h speed limit in front of hospital on Woodville Road.	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	

	Q1	Q2	Q3	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	
				How strongly do you agree/disagree with the Report Recommendations for?															
#	Do you support draft LATM plan (Y/N)	Does draft LATM plan address your concerns (Y/N)	If (draft plan does) not address your concerns, why not?	Scheme	Angus St	Oval St	Koolunda Ave	Branwhite St	Ledger Rd	Birch St	Glenrowan St	Glengarry St	Glenhuntley St	Gleneira St	Glenavon St	Fife St	Athlone St	Doon St	Comments
17	Yes	No	Want No U-turn sign regardless of consultation with CLS at Branwhite / Crittenden. Propose No Standing east side of Branwhite between Crittenden and Circuit.	Agree	Agree	Agree	Agree	Strongly Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	
18	Yes	Yes		Agree	Agree	Agree			Agree	Agree	Strongly Disagree	Agree	Agree	Agree	Agree	Strongly Agree			Glenrowan proposal could lead to extra traffic in Glengarry. Suggest device at Glenrowan/Oval intersection could achieve this purpose.
19	Yes	Yes		Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Like to see School Zone on Crittenden Road in front of Siena College from Findon to Pedestrian Actuated Traffic Signal Crossing (PAC).
20	Yes	Yes		Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Like to see School Zone on Crittenden Road in front of Siena College from Findon to Pedestrian Actuated Traffic Signal Crossing (PAC).
21	No	Yes	Restrict access to Glen Street with median from Fife to Glenrowan. (Can't read)	Strongly Agree	Strongly Agree	Disagree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Disagree	Disagree	Disagree	Disagree	Strongly Agree	Strongly Agree	Strongly Agree	(Can't read)
22	Yes	Yes		Agree	Agree	Agree	Agree	Strongly Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Evans St residents / visitors should be parking permits. Speed control also needed.
23	Yes	Yes	Apply Oval Avenue proposals at Glengarry and Gleneira, also at Glenhuntley.	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Implementation should occur as soon as possible.
24	Yes	No	Excessive speed in The Circuit not resolved. Parking restrictions required on one side of the Circuit due to narrow width.	Agree				Strongly Agree											
25	No	No	Problem when cars park no both sides of the street. Worse when football on, and in Connor due to QEH. Sight distances poor at Connor intersections.	Strongly Disagree		Disagree			Disagree	Disagree	Disagree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Agree			Glen' St proposal will cause inconvenience and congestion during football season.

	Q1	Q2	Q3	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	
				How strongly do you agree/disagree with the Report Recommendations for?															
#	Do you support draft LATM plan (Y/N)	Does draft LATM plan address your concerns (Y/N)	If (draft plan does) not address your concerns, why not?	Scheme	Angus St	Oval St	Koolunda Ave	Branwhite St	Ledger Rd	Birch St	Glenrowan St	Glengarry St	Glenhuntley St	Gleneira St	Glenavon St	Fife St	Athlone St	Doon St	Comments
26	No	No	Scheme will cause traffic hazards. Will penalise essential service and service vehicles. Hoons use traffic devices as fun obstacle courses. Ask residents who already live next to these traffic obstacles.																Ask 15 questions of immediate residents. Obstacles don't work - just increase annoyance and discomfort of elderly residents and frustrate emergency service workers.
27	No	No	Still does not isolate Branwhite St from Ledger Road to avoid cut through to Port Road.	Strongly Disagree				Strongly Disagree											What defines a collector road? What is an entry threshold? Symbols on plan not clear. What about missing hydrant posts? If can't isolate from Port Rd, implement similar treatments as in Hammond Road and Belmore Terrace. Residential streets should favour residents not short cut traffic.
28	No	No	Still does not isolate Branwhite St from Ledger Road to avoid cut through to Port Road.	Strongly Disagree				Strongly Disagree											What defines a collector road? What is an entry threshold? Symbols on plan not clear. What about missing hydrant posts? If can't isolate from Port Rd, implement similar treatments as in Hammond Road and Belmore Terrace. Residential streets should favour residents not short cut traffic.
29	Yes	Yes		Agree	Agree	Agree	Agree	Strongly Agree		Agree	Agree	Agree	Agree	Agree	Agree	Agree	Strongly Agree	Agree	
30	Yes	Partly	Doubtful the proposals in Oval Avenue and Koolunda Street will be effective. No Entry sign at Glenlossie/Oval always ignored.																
31	Yes	Partly	Parking needs to be restricted in Branwhite Street on one side, near the intersection of Crittenden Road.					Agree											
32		Yes							Strongly Agree						Agree				
33	Yes	Yes		Strongly Agree	Agree	Agree	Agree	Strongly Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Strongly Agree	Concerned about the safety of children being dropped off at, and in the vicinity of, Siena College. Provide access for cyclists through

	Q1	Q2	Q3	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	
				How strongly do you agree/disagree with the Report Recommendations for?															
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																			closed road sections.
34	Yes	Yes		Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	
35	Yes	Yes		Agree	Agree	Agree	Agree	Strongly Agree	Agree	Strongly Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	
36	Yes	Yes		Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Treatments (e.g. road humps) are required in Birch Street for safety reasons.
37	Yes	Yes		Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Treatments (e.g. road humps) are required in Birch Street for safety reasons.
38	Yes			Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Applauded Council for "their proactive action" (in preparing LATM scheme)
No. of Responses	34	34	*No. of Responses*	32	26	28	25	30	29	27	27	28	27	27	28	27	25	25	
Yes	28	17	*Strongly Agree*	14	11	14	14	20	15	13	12	13	13	11	11	14	13	13	
Partly	0	5	*Agree*	14	15	11	11	8	12	12	10	11	11	13	13	12	12	12	
No	6	12	*Disagree*	1	0	2	0	0	1	1	1	1	1	1	1	1	0	0	
			Strongly Disagree	3	0	1	0	2	1	1	4	3	2	2	2	0	0	0	
Positive	82%	65%	*Positive*	88%	100%	89%	100%	93%	93%	93%	81%	86%	89%	89%	86%	96%	100%	100%	
Negative	18%	35%	*Negative*	13%	0%	11%	0%	7%	7%	7%	19%	14%	11%	11%	11%	4%	0%	0%	
				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	96%	100%	100%	100%	