

ALH GROUP PTY LTD

TRAFFIC AND PARKING REPORT
FOR PLANNING PROPOSAL FOR
LOCKIES HOTEL SITE,
1423 CAMDEN VALLEY WAY,
LEPPINGTON

NOVEMBER 2017

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TABLE OF CONTENTS

1. INTRODUCTION	1
2. EXISTING CONDITIONS.....	2
3. IMPLICATIONS OF PROPOSED DEVELOPMENT	8

1. INTRODUCTION

- 1.1 Colston Budd Rogers and Kafes Pty Ltd has been commissioned by ALH Group Pty Ltd to prepare a report examining the traffic and parking implications of a planning proposal for the Lockies Hotel site at Leppington. The site location is shown in Figure 1.
- 1.2 The Lockies Hotel site includes the existing hotel and drive-through bottle shop of 1,322m². Vehicular access is provided from Ingleburn Road.
- 1.3 The planning proposal would provide for a new tavern of 3,115m², Dan Murphy's of 1,570m² and an 80 room motel. New parking, loading areas and circulation are proposed.
- 1.4 This report assesses the traffic and parking implications of the proposed development through the following chapters:
- Chapter 2 - describing the existing conditions; and
 - Chapter 3 - assessing the traffic and parking implications of the proposed development.
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2. EXISTING CONDITIONS

Site Location and Road Network

- 2.1 The site is at 1423 Camden Valley Way, on the north-western corner of the intersection of Camden valley Way with Ingleburn Road and Denham Court Road at Leppington, as shown in Figure 1. Lockies Hotel includes the hotel and drive-through bottle shop of 1,322m².
- 2.2 Vehicular access is provided from Ingleburn Road via an entry/exit driveway. There is a right turn bay in Ingleburn Road for turns into the development.
- 2.3 The site is in the Leppington North precinct in the South West Priority Growth Area. Surrounding land use includes rural properties and residential uses which are being developed in the area. The Leppington Major Centre is west of the site.
- 2.4 Camden Valley Way is adjacent the site. It is a major road linking the Hume Highway at Prestons in the north with Camden in the south. It provides the major north-south road access through the South West Priority Growth Area and its associated release areas, having been upgraded to accommodate this development. It provides a four lane divided carriageway (with future provision to upgrade to six lanes) with two traffic lanes in each direction. Major intersections are signalised with additional lanes for turning traffic. It has an 80 kilometre per hour speed limit. There are bus stops on both sides of the road, and bus priority at signalised intersections. An off-road cycle path is provided along the western side of the road, adjacent the site.
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- 2.5 Ingleburn Road and Denham Court Road intersect Camden Valley Way at a signalized intersection, adjacent the site. Both roads have been upgraded at the intersection in association with the upgrade to Camden Valley Way. There are left and right turn lanes on all approaches to the intersection.
- 2.6 There is a right turn bay in Ingleburn Road for access to and from the site. West of the site, Ingleburn Road provides for one traffic lane in each direction.

Previous Studies

- 2.7 The site is within the Leppington North precinct in the South West Priority Growth Area. An indicative layout plan and development control plan have been prepared for the precinct and the adjacent Austral precinct.
- 2.8 The Austral and Leppington North precincts are two of 19 precincts in the South West Priority Growth Area. The precincts comprise some 2,025 hectares and will ultimately provide:
- 17,350 dwellings;
 - 54,000 residents;
 - 220 hectares of employment land;
 - 135 hectares of open space and recreational areas;
 - Leppington Major Centre with regional shopping, employment, cultural and community facilities;
 - new Leppington railway station;
 - three neighbourhood centres;
 - new schools and upgrades to major roads; and
 - walking and cycling routes.
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- 2.9 In association with the rezoning of the precincts, transport studies^{1,2} were prepared. The studies assessed the transport requirements to accommodate a level of development generally described above. These studies recommended road and transport works to accommodate development of the precincts.
- 2.10 The DCP for the Austral and Leppington North Precincts identifies an upgrade to Ingleburn Road, new roundabouts and traffic signals at a number of intersections and other traffic facilities, including provision for buses, pedestrians, and cyclists.
- 2.11 The Camden Growth Areas Contributions Plan includes the road and transport works from the DCP and previous transport studies and provides a mechanism for their funding.
- 2.12 In addition to these works, other major works within the South West Priority Growth Area, including upgrades to Camden Valley Way and South West Rail Link Extension, have and are being provided to accommodate future development in the South West Growth Centre, including the Austral and Leppington North precincts and other surrounding areas. The overall transport and traffic planning for the area has therefore already identified works to cater for this development, with mechanisms in place or being put in place to facilitate their implementation.

Traffic Flows

- 2.13 Traffic generated by the proposed development will have its greatest effects during weekday evening and Saturday peak periods when it combines with other

¹ "Austral and Leppington North (ALN) Precincts Transport Assessment." Prepared by Aecom for NSW Department of Planning and Infrastructure, 11 August 2011.

² "Post Exhibition Traffic Report (Addendum)." Prepared by Aecom for NSW Department of Planning and Infrastructure, 4 July 2012.

traffic on the surrounding road network. In order to gauge traffic conditions, counts were undertaken during a Friday evening and Saturday lunchtime. Friday evenings are also busy periods for the hotel. The traffic counts were undertaken at the intersection of Camden Valley Way with Ingleburn Road and Denham Court Road.

- 2.14 The results of the surveys are shown in Figures 2 and 3 and summarised in Table 2.1. Camden Valley Way 5090 to 5500 vehicles per hour two-way during the Friday and Saturday peak hours. Denham Court Road and Ingleburn Road carried lower flows of some 950 to 1860 vehicles per hour two-way.

Road	Location	Friday evening peak hour	Saturday lunchtime peak hour
Camden Valley Way	North of Ingleburn Road	2785	2585
	South of Ingleburn Road	2715	2505
Denham Court Road	East of Camden Valley Way	1150	610
Ingleburn Road	West of Camden Valley Way	710	340

- 2.15 The surveys found that the site generated some 330 and 150 vehicles per hour two-way (sum of entry plus exit) during the Friday evening and Saturday peak hours respectively.

Intersection Operations

- 2.16 The capacity of the road network is largely determined by the capacity of its intersections to cater for peak period traffic flows. The intersection of Camden Valley Way with Ingleburn Road and Denham Court Road has been analysed using the SIDRA program for the traffic flows shown in Figures 2 and 3.

2.17 SIDRA simulates the operations of intersections to provide a number of performance measures. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle. Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):

- For traffic signals, the average delay per vehicle in seconds is calculated as delay/(all vehicles), for roundabouts the average delay per vehicle in seconds is selected for the movement with the highest average delay per vehicle, equivalent to the following LOS:

0 to 14	=	"A"	Good
15 to 28	=	"B"	Good with minimal delays and spare capacity
29 to 42	=	"C"	Satisfactory with spare capacity
43 to 56	=	"D"	Satisfactory but operating near capacity
57 to 70	=	"E"	At capacity and incidents will cause excessive delays. Roundabouts require other control mode.
>70	=	"F"	Unsatisfactory and requires additional capacity

- For give way and stop signs, the average delay per vehicle in seconds is selected from the movement with the highest average delay per vehicle, equivalent to following LOS:

0 to 14	=	"A"	Good
15 to 28	=	"B"	Acceptable delays and spare capacity
29 to 42	=	"C"	Satisfactory but accident study required
43 to 56	=	"D"	Near capacity and accident study required
57 to 70	=	"E"	At capacity and requires other control mode
>70	=	"F"	Unsatisfactory and requires other control mode

- 2.18 It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be misleading. The size of the movement with the highest average delay per vehicle should also be taken into account. Thus, for example, an intersection where all movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.
- 2.19 The analysis found that the signalised intersection of Camden Valley Way with Ingleburn Road and Denham Court Road is operating with average delays of less than 24 seconds per vehicle during the Friday evening and Saturday peak periods. This represents level of service B, a good level of service.

Public Transport

- 2.20 The site is adjacent to bus services which operate along Camden Valley Way. There are bus stops adjacent to the site on Camden Valley Way. Services also operate along Ingleburn Road. Services include links to Leppington railway station.
- 2.21 Local bus services are provided by Interline. Services include:
- route 856: Bringelly to Liverpool via Leppington, Prestons and Casula;
 - route 857: Narellan to Liverpool via Prestons and Casula; and
 - route 858: Oran Park to Leppington via Camden Valley Way.
- 2.22 The site is therefore accessible by public transport.
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3. IMPLICATIONS OF PROPOSED DEVELOPMENT

3.1 The planning proposal would provide for a new tavern of 3,115m², Dan Murphy's of 1,570m² and an 80 room motel. New parking, loading areas and circulation are proposed.

3.2 This chapter assesses the implications of the proposed development through the following sections:

- public transport;
- parking provision;
- access, servicing and internal layout;
- traffic generation and effects; and
- summary.

Public Transport

3.3 As previously discussed, the site has access to local bus services. The site is therefore accessible by public transport.

3.4 The proposed development would increase employment and retail densities close to existing public transport services. The proposal would therefore strengthen the existing demand for these services.

3.5 The site would continue to be accessible by modes of travel other than car, such as walking and buses.

3.6 The proposed development is therefore consistent with government objectives and the planning principles of:

- (a) improving accessibility to employment and services by walking, cycling, and public transport;
- (b) improving the choice of transport and reducing dependence solely on cars for travel purposes;
- (c) moderating growth in the demand for travel and the distances travelled, especially by car; and
- (d) supporting the efficient and viable operation of public transport services.

Parking Provision

- 3.7 The Camden Growth Centre Precincts Development Control Plan does not include parking requirements for taverns or motels. For retail premises greater than 200m², the DCP includes a parking requirement of one space per 22m².
 - 3.8 By comparison, for pubs, the Camden Council DCP 2011 includes a parking requirement of one space per 2m² GFA public bar area, plus one space per 5m² GFA lounge, beer garden, auditorium, billiard room, restaurant, plus 25 spaces per 100m² of remaining public floor area, plus one bicycle and one motorcycle space per 25 car spaces in excess of the first 25 car spaces.
 - 3.9 The DCP also notes that council will consider the peak demand of the uses and potential for dual use of parking spaces. A detailed car parking submission based on a similar club parking arrangement may be required.
 - 3.10 For motel accommodation, the DCP requirement is one space per unit plus one space per two employees.
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- 3.11 We have undertaken surveys of the parking demands of many clubs/pubs/taverns. These surveys have found typical peak parking demands of one space per 15m² GFA. This provision is considered appropriate for the proposed tavern, which includes uses (restaurant, bar, gaming areas) similar to other clubs.
- 3.12 We have also undertaken surveys of the parking demands at other Dan Murphy's. These surveys found parking demands of one space per 36m².
- 3.13 The Dan Murphy's will have peak demands during the day on weekends and Thursday/Friday late afternoon/early evenings. The tavern will have peak demands on Fridays and weekends later in the evening.
- 3.14 A proportion of people using the motel accommodation would also be visitors to the tavern. These people would not require separate parking. Therefore, parking demands of the hotel and accommodation would be reduced.
- 3.15 Taking the above into account, the proposed development would have peak parking demands of some 250 spaces. The proposed provision is 257 spaces which is considered appropriate.
- 3.16 Appropriate disabled parking spaces and bicycle parking will be provided.

Access, Servicing and Internal Layout

- 3.17 The existing driveway to the site from Ingleburn Road would be retained to provide access to the development. It will provide for entry and exit to the site, as at present, for customers and service vehicles.
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- 3.18 A drop-off area will be provided at the front of the motel for taxis and mini-buses. Separate loading bays will be provided for the tavern, Dan Murphy's and motel. The Dan Murphy's bay will cater for 19 metre semi-trailers and 12.5 metre large rigid trucks to enter from Ingleburn Road, manoeuvre within the site and exit in a forward direction. The bays for the motel and tavern will provide for medium to large rigid trucks, in accordance with the Australian Standard for Parking Facilities (Part 2: Off-street commercial vehicle facilities), AS 2890.2 – 2002. The final design will be detailed at the development application stage.
- 3.19 An amended parking layout will be provided on the site. Spaces will be a minimum of 5.4 metres long and 2.6 metres wide, with clearance to adjacent obstructions. Aisles will be a minimum of 5.8 metres wide. Disabled parking spaces will be 2.4 metres wide, with a 2.4 metre wide adjacent area for wheelchairs. These dimensions are considered appropriate, being in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking and Part 6: Off-street commercial vehicle facilities), AS 2890.1:2004 and AS 2890.6:2009.

Traffic Generation and Effects

- 3.20 Traffic generated by the proposed development will have its greatest effects during Friday evening and Saturday lunchtime peak periods when it combines with other traffic on the surrounding road network.
- 3.21 Surveys of other Dan Murphy's have found traffic generation of some 18.5 and 13.5 vehicles per hour per 100m² two-way during Friday and Saturday peak hours respectively. On this basis, the proposed Dan Murphy's would generate some 290 and 210 vehicles per hour two-way respectively at these times.
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- 3.22 The RMS “Guide to Traffic Generating Developments” indicates that motels generate 0.4 vehicles per hour per unit during evening peak hours. On this basis, the 80 motel rooms would generate some 35 vehicles per hour two-way during the Friday evening. We have assessed 20 vehicles per hour two-way for the accommodation units on the Saturday.
- 3.23 Surveys of other clubs/pubs/taverns have found traffic generation rates in the range 3.3 to 6.4 vehicles per hour per 100m² two-way during Friday evenings, with an average rate of around 4.5 vehicles per hour per 100m² two-way. We have assessed a generation of 4.5 vehicles per hour per 100m².
- 3.24 As noted in Chapter 2, the existing development generated some 330 and 150 vehicles per hour two-way during Friday and Saturday peak hours respectively. Therefore the increase in traffic generation would be some 140 and 220 vehicles per hour two-way at these times.
- 3.25 A proportion of this traffic would be passing trade (i.e. traffic which is passing the Dan Murphy’s regardless of its visit to the store). Based on RMS guidelines, our assessment includes 20 per cent passing trade for Dan Murphy’s.
- 3.26 The additional traffic has been assigned to the road network. Existing traffic flows plus the additional traffic from the proposed development are shown in Figures 2 and 3, and summarised in Table 3.1. Traffic increases on Ingleburn Road would be some 230 to 290 vehicles per hour two-way at peak times. Increases on Camden Valley Way and Denham Court Road would be lower at some 70 to 100 vehicles per hour two-way.
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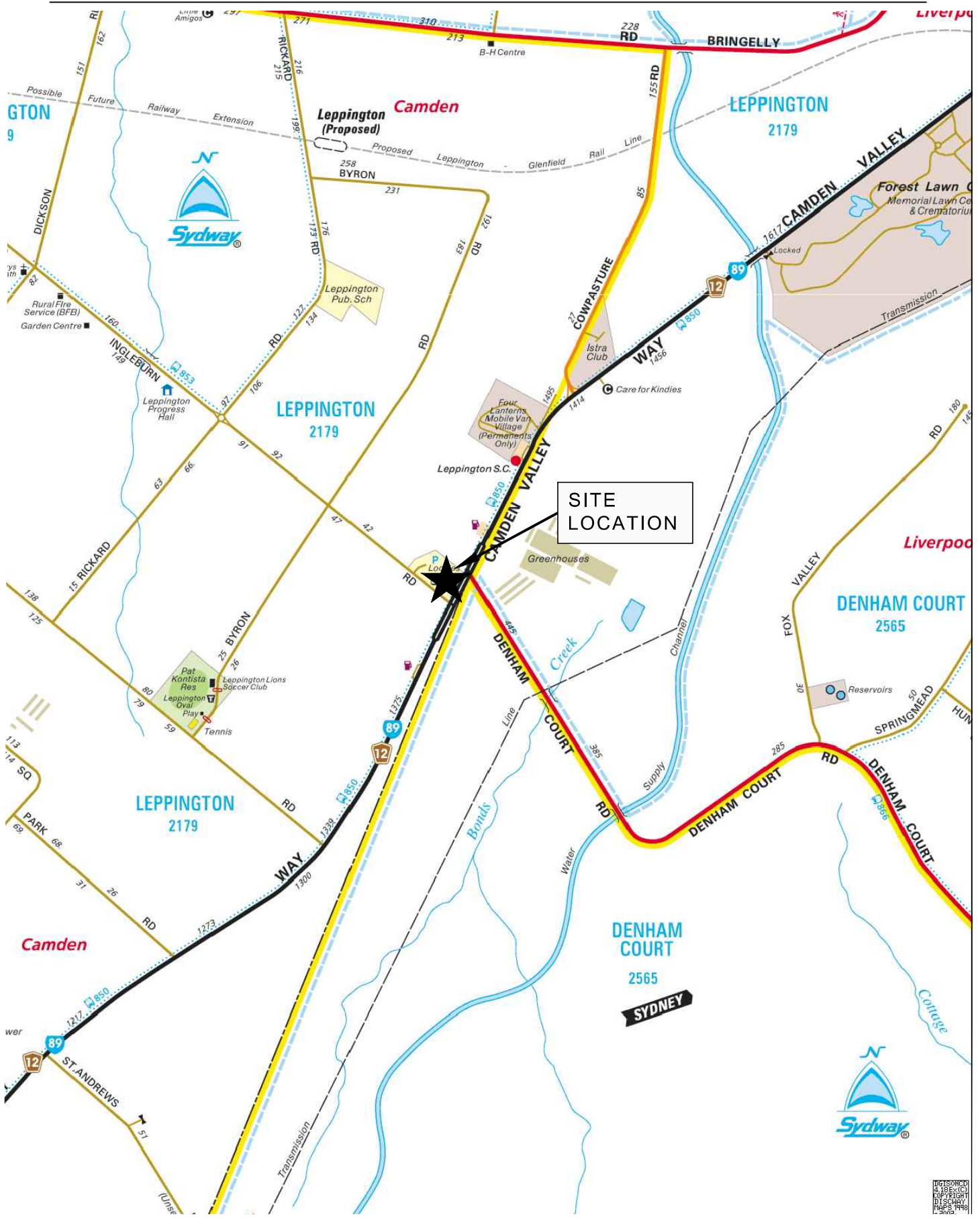
Road	Location	Friday evening peak hour		Saturday lunchtime peak hour	
		Existing	Plus development	Existing	Plus development
		Camden Valley Way	North of Ingleburn Road	2785	+ 100
	South of Ingleburn Road	2715	+ 100	2505	+ 80
Denham Court Road	East of Camden Valley Way	1170	+ 90	610	+ 70
Ingleburn Road	West of Camden Valley Way	710	+ 290	340	+ 230

- 3.27 The intersection of Camden Valley Way with Ingleburn Road and Denham Court Road has been re-analysed with SIDRA for the additional development traffic flows shown in Figures 2 and 3. The analysis found that the intersection would operate with average delays of less than 26 seconds per vehicle during the Friday evening and Saturday peak periods. This represents level of service B, a good level of service.
- 3.28 Therefore, the road network will be able to cater for the additional traffic from the proposed development, with spare capacity to cater for future development in the area.
- 3.29 At the development application stage, the development will make appropriate contributions under the Camden Growth Areas Contributions Plan toward traffic and transport works in the area.

Summary

- 3.30 In summary, the main points relating to the transport implications of the planning proposal are as follows:

- i) the proposed development would increase employment, services and retail densities close to existing public transport services;
- ii) the proposed parking provision is appropriate;
- iii) at the development application stage, access, internal circulation and layout will be provided in accordance with AS 2890.1:2004 and AS 2890.2 - 2002;
- iv) significant road and transport infrastructure is being provided to cater for future development in the South West Growth Centre;
- v) the road network will be able to accommodate the additional traffic from the proposed development; and
- vi) the development will make appropriate contributions under the Camden Growth Areas Contributions Plan toward traffic and transport works in the area.



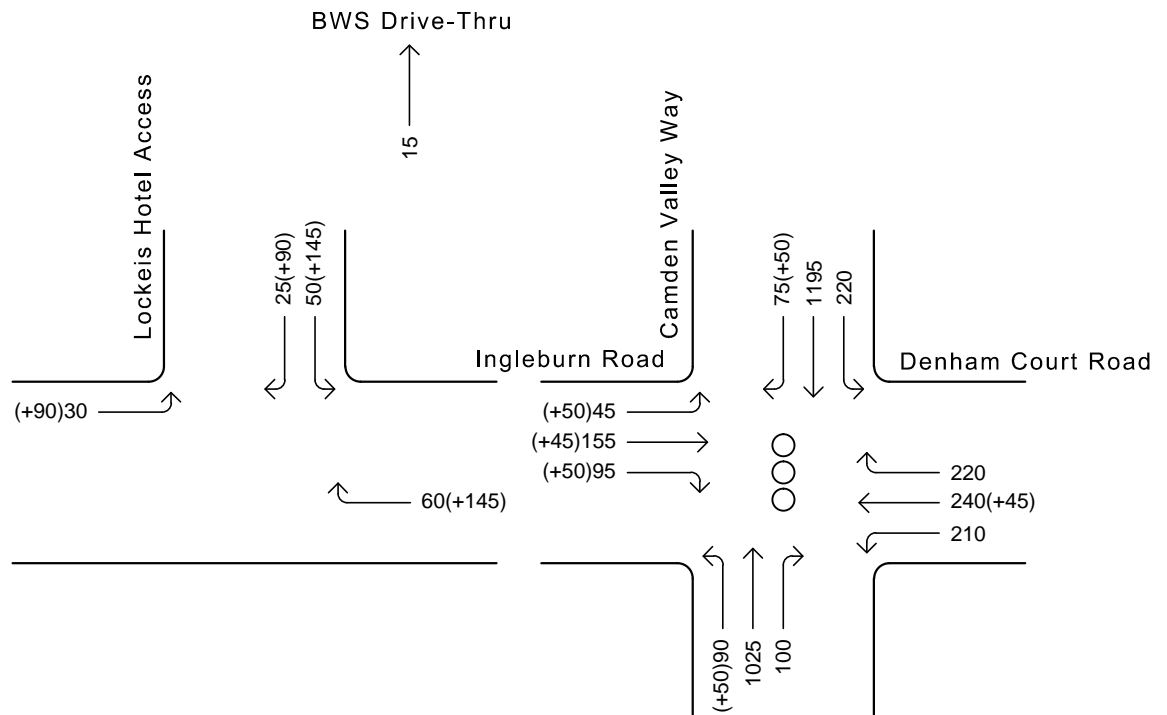
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Location Plan

Colston Budd Rogers & Kafes Pty Ltd

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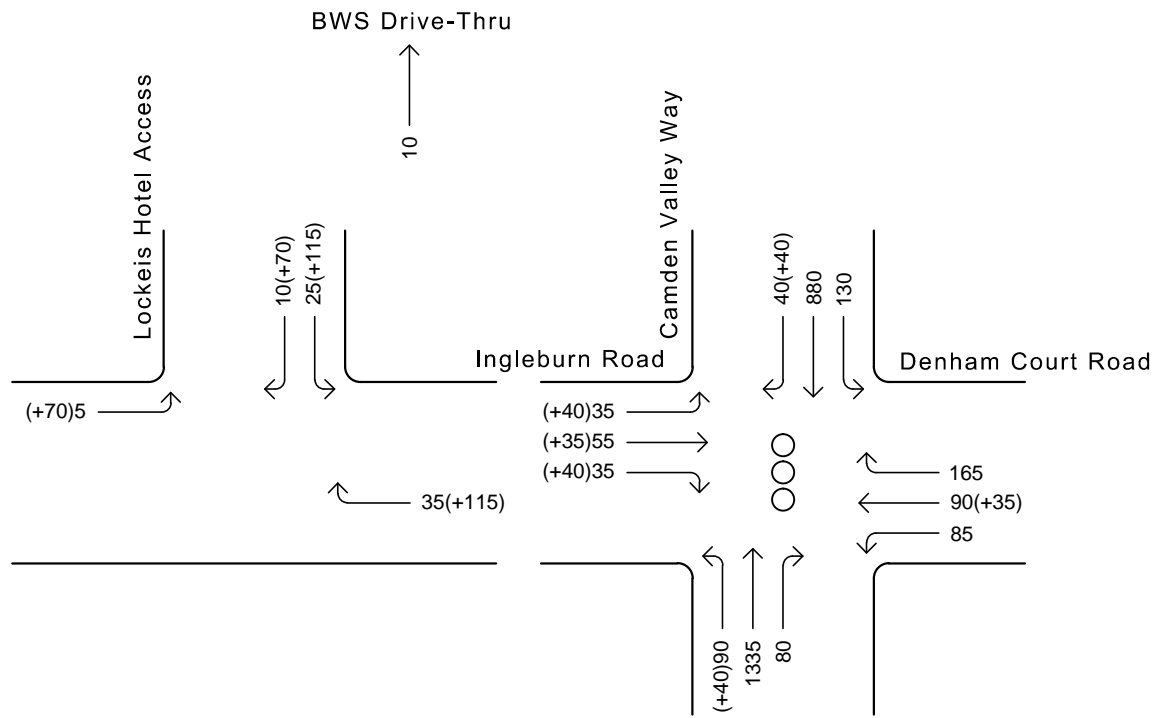
Figure 1



LEGEND

- 100 - Existing Peak Hour Traffic Flows
- (+10) - Additional Development Traffic
- ∞ - Traffic Signals

Existing Friday evening peak hour traffic flows plus development traffic
Figure 2



LEGEND

- 100 - Existing Peak Hour Traffic Flows
- (+10) - Additional Development Traffic
- ⊗ - Traffic Signals

Existing Saturday evening peak hour traffic flows plus development traffic
Figure 3