STOCKLAND

REPORT ON THE TRANSPORT IMPLICATIONS OF PROPOSED STAGE 2 EXTENSIONS TO STOCKLAND WETHERILL PARK

JULY 2012

COLSTON BUDD HUNT & KAFES PTY LTD ACN 002 334 296 Level 18 Tower A Zenith Centre 821 Pacific Highway CHATSWOOD NSW 2067

 Telephone:
 (02)
 9411 2411

 Facsimile:
 (02)
 9411 2422

 Email:
 cbhk@cbhk.com.au

REF: 8547/2

## TABLE OF CONTENTS

Ι.		. I
2.	EXISTING CONDITIONS	.2
3.	IMPLICATIONS OF PROPOSED STAGE 2 EXTENSIONS	10

## I. INTRODUCTION

- 1.1. Colston Budd Hunt & Kafes Pty Ltd has been retained by Stockland to prepare a report on the transport implications of the proposed Stage 2 extensions to Stockland Wetherill Park. The proposed Stage 2 extensions involve reconfiguration of existing parking and retail uses within the centre of the site to provide an additional 5,664m<sup>2</sup> of retail area and an additional 227 parking spaces.
- 1.2. The Stage I extensions were approved in 2011. The approval comprised an increase in GLA of some 11,955m<sup>2</sup> (comprising a 1,195 m<sup>2</sup> gym, 618 m<sup>2</sup> medical centre) with the balance (10,142m<sup>2</sup>) retail development (including ancillary restaurants and eateries). Parking provision was increased by 468 spaces (467 spaces required).
- 1.3. It is noted that a Section 96 Application to the Stage I approval has been lodged with Council. This would reduce the approved GLA by some 1,675m<sup>2</sup> with no change in parking provision. Thus the net increase in GLA from the Stage 2 DA and Section 96 to the Stage I approval would be some 3,989m<sup>2</sup>.
- 1.4. This report assesses the transport implications of the proposed alterations and additions to the shopping centre through the following chapters:-
  - Chapter 2 Describing the existing conditions;
  - Chapter 3 Assessing the implications of proposed Stage 2 extensions.

## 2. EXISTING CONDITIONS

## Site Location

- 2.1. Stockland Wetherill Park shopping centre is located on the southern side of Polding Street, between Prairie Vale Road and Roland Street, as shown on Figure I. The shopping centre extends between Polding Street and Restwell Road, with signalised access driveways onto both of these street frontages.
- 2.2. The existing shopping centre comprises some 47,900m<sup>2</sup>, including retail area, a library, child care centre and a cinema complex. Car parking is currently provided for some 1,944 spaces. To the west of the site is the Parramatta to Liverpool Bus Transitway with a major stop located adjacent to the shopping centre with a pedestrian connection between the Transitway and the shopping centre. The site is located within the Prairiewood town centre.
- 2.3. The Stage I approval increased the centre by some 11,955m<sup>2</sup> (comprising a 1,195 m<sup>2</sup> gym, 618 m<sup>2</sup> medical centre) with the balance (10,142m<sup>2</sup>) retail development (including or ancillary restaurants and eateries). Parking provision was increased by 468 spaces.
- 2.4. Surrounding land use comprises residential to the north and west (on the western side of the transitway), Prairiewood High School to the east, and recreational and community facilities (sporting fields, Calabria club and Prairiewood Youth and Community Centre) to the south.

### The Road Network

- 2.5. The main road network in the vicinity of the site is made up of Polding Street, Restwell Road, Prairie Vale Road and Mimosa Road. The Parramatta to Liverpool Bus Transitway is located to the west of the site, which provides a dedicated bus road with traffic signal controlled intersections on Polding Street and Restwell Road. Polding Street is located along the northern boundary of the site and provides access to the site via two traffic signal controlled intersections plus left in/left out access to a petrol station. Adjacent to the site, Polding Street provides one or two traffic lanes in each direction with additional turning lanes at the traffic signal controlled intersections. The eastern traffic signal controlled intersection is the major site access off Polding Street and is a T-intersection with Polding Street the major road. The western traffic signal controlled intersection. The southern leg provides access to the McDonalds and a small parking area.
- 2.6. Restwell Road is located along the southern boundary of the site and provides access to the site via a traffic signal controlled T- intersection at the eastern end of the site with secondary access to service areas and staff parking located to the west of the major access. Adjacent to the site, Restwell Road provides one traffic lane in each direction with kerb side parking, with additional lanes at the traffic signal controlled intersections.
- 2.7. Prairie Vale Road is located to the east of the site and forms part of a north south link connecting The Horsley Drive (in the north) with the residential areas to the south. It generally provides one traffic lane in each direction with kerb side parking, with additional lanes at the traffic signal controlled intersections. The intersection of Prairie Vale Road and Restwell Road is a traffic signal controlled T-intersection.

2.8. Mimosa Road is located to the east of the site and forms part of a north south link connecting The Horsley Drive (in the north) with the residential areas to the south. It generally provides one traffic lane in each direction with kerb side parking. The intersection of Mimosa Road and Polding Street is a traffic signal controlled T- intersection. The intersection of Mimosa Road and Restwell Road is a multi lane roundabout.

## Traffic Flows

- 2.12 In order to establish existing traffic flows in the area, traffic counts were undertaken during a Thursday afternoon and a Saturday middle of the day in September 2010 (prior to school holidays). The Thursday counts cover a period when retail activity overlaps with a normal weekday peak period and included the school pick up time. Saturday represents the busiest time for the retail centre.
- 2.13 Examination of Table 2.1 reveals that:
  - Polding Street carried some 645 to 2,125 vehicles per hour (two way) during the Thursday afternoon and Saturday midday peak periods. Traffic flows were highest on the eastern section of Polding Street and decreased towards Mimosa Road;
  - Restwell Road carried some 765 to 1350 vehicles per hour (two way) during the Thursday afternoon and Saturday midday peak periods. Traffic flows were highest on the eastern section of Polding Street and decreased towards Mimosa Road;
  - Prairie Vale Road carried some 645 to 2,125 vehicles per hour (two way) during the Thursday afternoon and Saturday midday peak periods;

Location	Thursday	Saturday	
Polding Street			
- east of Prairie Vale Road	2125	1780	
- west of Prairie Vale Road	1455	1415	
- east of main access	1380	1230	
- east of transitway	1080	1045	
- east of Mimosa Road	790	645	
Restwell Road			
- west of Prairie Vale Road	1240	1020	
- east of main access	1220	1140	
- east of transitway	1065	1100	
- east of Mimosa Road	775	820	
Prairie Vale Road			
- north of Polding Street	835	765	
- south of Polding Street	1370	1050	
- east of Restwell Road	1350	895	
- south of Restwell Road	1320	1265	
Mimosa Road			
- north of Polding Street	1005	670	
- south of Polding Street	1090	775	
- north of Restwell Road	915	860	
- south of Restwell Road	580	840	
Site Accesses			
- eastern Polding Street access	1300	1345	
- western Polding Street access	155	150	
- Restwell Road access	1255	1455	

- Mimosa Road carried 645 to 2,125 vehicles per hour (two way) during the Thursday afternoon and Saturday midday peak periods;
- The existing shopping centre (excluding the petrol station on Polding Street) generated some 2,710 and 2,970 vehicles per hour (two way) during the Thursday afternoon and Saturday midday peak periods respectively. This is a generation rate of some 5.6 and 6.1 trips per 100m<sup>2</sup> per hour (two way).
- 2.14 Surveys of traffic movements through the centre in 2008 (between Polding Street and Restwell Road) found only a small proportion of (less than 5%) of traffic entering the site was through traffic (that is did not stop in the centre).

#### Intersection Operation

- 2.15 The capacity of the road network is generally determined by the capacity of its intersections to cater for peak period traffic flows. The surveyed intersections have been analysed using the SIDRA program. SIDRA is designed to analyse traffic signal controlled intersections, roundabouts and priority intersections.
- 2.16 The program produces a number of measures of intersection operations. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle.
- 2.17 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	=	"В"	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	=	"В"	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 Table 2.2 summarises the SIDRA analysis for the existing situation and with Stage I traffic.

Table 2.2	Summary of SIDRA Analysis – Average Delay per Vehicle (seconds) +						
	Level of Service	e (LOS)					
Intersection	1	Thursday		Saturday			
		Existing	+ Stage I	+ Stage I Existing			
Polding St/P	rairie Vale Rd	46 (D)	48 (D)	36 (C)	40 (C)		
Polding Stre	et/Eastern Access	22 (B)	24 (B)*	22 (B)	24 (B)*		
Polding Stre	et/Mimosa Road	31 (C)	31 (C)	23 (B)	23 (B)		
Polding Stre	et/Western Access	13 (A)	13 (A)	11 (A)	12 (A)		
Restwell Road/Mimosa Road		13 (A)	13 (A)	13 (A)	13 (A)		
Restwell Road/Site Access		19 (B)	21 (B)	20 (B)	22 (B)		
Restwell Rd/	Prairie Vale Rd	19 (B)	20 (B)	22 (B)	23 (B)		

\*with extended right turn bay on site access approach (as suggested by Council and RMS)

2.20 Examination of Table 2.2 reveals that all intersections (except Polding Street/Prairie Vale Road in the Thursday afternoon peak period) would operate at a satisfactory better level of service with Stage I traffic in place, the same as the existing situation. There would only be a minor increase in average delays. In the Thursday afternoon peak period, with Stage I traffic in place, the intersection of Polding Street and Prairie Vale Road would operate at LOS D with only minor increases in average delay.

#### Public Transport

- 2.21 Public transport to Prairiewood Town Centre is provided by buses. The Liverpool to Parramatta Transitway runs along the western boundary of the site with a stop provided midway along the site frontage. Pedestrian access is provided directly from the transitway into the shopping centre. Buses operate along the transitway at high frequencies and connect the shopping centre to Parramatta and Liverpool as well as Bonnyrigg and the Wetherill Park employment zone. In addition to services that operate along the transitway, there are a number of local services that connect the shopping centre to the surrounding suburbs. These include the Westbus 808 and 817 services.
- 2.22 Stockland Wetherill Park shopping centre is located within Prairiewood town centre, which is the focus of a comprehensive system of bus network that provides local and regional connection services. This allows customers that cannot, or do not wish to, travel to the centre by car to do so by bus.

#### **Pedestrians**

2.23 Pedestrian access to the shopping centre is available from all street frontages as well as from transitway to the west and school to the east. Within the site there is

a defined network of footpaths that provide a north-south and east west connections.

2.24 Existing pedestrian infrastructure on the surrounding roads consists of footpaths and pedestrian facilities at the signalised intersections.

#### <u>Parking</u>

- 2.25 Stockland has an agreement with Fairfield Council for Council rangers to police parking within the car park with sections of the car park having a three or four hour time limit. This has reduced parking demand within centre from some 95% to less than 90% by removing all day parking not associated with the shopping centre. There is designated staff parking areas in the south eastern and western sections of the site.
- 2.26 Surveys of parking demand at the existing centre were undertaken over a Thursday (8am to 8pm) and Saturday (8am to 4pm). The surveys found the following:
  - Thursday parking demand ranged from a low of 318 spaces (at 8am) to 1,596 spaces at 12pm). Peak parking demand was 83% of available parking; and
  - Saturday parking demand ranged from a low of 241 spaces (at 8am) to 1,677 spaces at 12pm). Peak parking demand was 87% of available parking.

## 3. IMPLICATIONS OF PROPOSED STAGE 2 EXTENSIONS

### The Proposed Development

- 3.1 The proposed Stage 2 extensions involve reconfiguration of existing parking and retail uses within the centre of the site to provide an additional 5,664m<sup>2</sup> of retail area and an additional 227 parking spaces. The Stage 2 extensions will involve some changes to some sections of the car park. As noted in Chapter 1, a Section 96 Application to the Stage 1 approval has been lodged with Council. This would reduce the approved GLA by some 1,675m<sup>2</sup> with no change in parking provision. Thus the net increase in GLA from the Stage 2 DA and Section 96 to the Stage 1 approval would be some 3,989m<sup>2</sup>.
- 3.2 The implications of the proposed Stage 2 extensions are assessed through the following sections:
  - public transport
  - parking provision;
  - access and internal layout;
  - □ servicing;
  - pedestrians;
  - □ traffic effects;
  - construction; and
  - □ summary.

#### Public Transport

3.3 It was noted in Chapter 2 that Stockland Wetherill Park Shopping Centre has good accessibility by public transport with bus services that access Prairiewood

Town Centre. The shopping centre is therefore well located to provide customers and staff with a choice of modes for travel to the centre.

- 3.4 The proposed development will increase employment and retail densities close to existing public transport services. The proposal would therefore strengthen the existing demand for these services. The proposed development is therefore consistent with the planning principles of:-
  - (a) improving accessibility to housing, 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.
- 3.5 The existing connection from the centre to the Transitway will be maintained on the western boundary of the site. An awning will be provided over the connection (with a 4.5 metre height clearance) to improve all weather access between the centre and the transitway station.
- 3.6 The proposed development would maintain existing bus stops adjacent to the site. As per the approved Stage I extensions a set down/pick up area will be provided on the western side of the north south spine road (near the shopping centre entrance). This would also be available as a taxi set down and pick up area.

## Parking Provision

- 3.7 Parking requirements for development are set out in Chapter 12 of the Fairfield City Wide DCP. For retail development within Prairiewood Town Centre (Stockland) the DCP suggests provision of I space per 25m<sup>2</sup> GLA. The proposed development with some 5,664m<sup>2</sup> GLA of additional retail space would require an additional some 227 spaces. An additional 227 spaces are proposed which satisfies this requirement. As noted previously a Section 96 application to the Stage I approval has been lodged with Council. This would reduce the approved GLA by some 1,675m<sup>2</sup>. Thus the net increase in GLA from the Stage 2 DA and Section 96 application would be some 3,989m<sup>2</sup>. This would require provision of 160 spaces. Thus the proposed provision of 227 spaces would provide a surplus of 67 spaces.
- 3.8 Appropriate levels of disabled parking and bicycle parking will be provided in accordance with Council requirements. These spaces will be located close to entrances of the shopping centre.

#### Access and Internal layout

- 3.9 There are no changes proposed with regard to access to/from the site.
- 3.10 Within the site the central car park on the western side of the north-south spine road will be relocated and expanded to accommodate the additional retail area and parking. The proposed changes include:
  - relocation of the approved southern roundabout on the spine road slightly to the north to provide access to car parking areas either side of the spine road; and

- modifications to the approved car park layout on the western side of the spine road to accommodate the new retail area and provision of three levels of roof top parking.
- 3.11 As per the approved Stage I extensions additional traffic calming (speed humps) will be provided along the North-South Spine Road in order to maintain low vehicle speeds and dynamic signage provided to inform customers of the availability of parking within the car parking areas.
- 3.12 In summary, the overall strategy for the new car park layout and internal circulation is to provide parking adjacent to entrances to the shopping centre, efficient use of available parking by making it accessible and attractive to use, and direct customers around the centre in a safe and efficient manner. All new parking bays, ramps and circulation aisles will be designed to comply with the Australian Standard for Off Street Parking AS2890.1-2004.

## Servicing

3.13 No changes are proposed to the approved service arrangements with the additional retail space using existing loading docks located on the southern and western sides of the centre.

## **Pedestrians**

3.14 Pedestrian access to the shopping centre will be maintained from all street frontages including from the transitway. Pedestrian crossings will be provided on the north south spine road to maintain connectivity between developments on either side of the spine road.

- 3.15 As noted previously pedestrian access to the transitway will be maintained and enhanced with provision of an awning (with a height clearance of 4.5 metres) over the connection to provide all weather access.
- 3.16 The car park area will be designed to provide appropriate pedestrian connections between the car parking areas and the shopping centre.

#### Traffic Effects

- 3.17 The proposed alterations and additions will increase the retail area by 5,664m<sup>2</sup>. Additional traffic from the proposed alterations and extensions has been estimated using the surveyed traffic generation rates of 5.6 vehicles per hour (two way) per 100m<sup>2</sup> during the Thursday afternoon peak period and 6.1 vehicles per hour (two way) per 100m<sup>2</sup> during the Saturday midday peak period.
- 3.18 Application of the above generation rates to the additional development results in an additional generation of some 315 vehicles per hour two-way during the Thursday peak hour and some 345 vehicles per hour during the Saturday peak hour. As noted previously the Section 96 application to the Stage 1 approval would reduce the GLA by some 1,675m<sup>2</sup>. Thus the net increase in GLA from the Stage 2 DA and Section 96 application would be some 3,989m<sup>2</sup> which would result in lower generation of additional traffic (generation of 225 and 245 vehicles per hour (two way) in the Thursday afternoon and Saturday midday peak periods respectively). For the purposes of assessing the traffic effects of the Stage 2 extensions the higher level of traffic generation have been used.
- 3.19 The RTA guidelines suggest that for a centre 30,000m<sup>2</sup> or larger, some 15 per cent of retail visits are likely to be passing trade, i.e. customers who would have driven past the centre regardless of their visit to the centre.

3.20 The additional traffic has been assigned to the surrounding road network based on the existing travel patterns to and from the centre. The traffic flows are summarised in Table 3.1 below and displayed in Figures 2 and 3.

Table 3.1:         Existing + Development Two Way (sum of both directions) Traffic Flows						
	Thu	rsday	Saturday			
Location	Existing	With dev	Existing	With Dev		
Polding Street						
- east of Prairie Vale Road	2125	+70	1780	+70		
- west of Prairie Vale Road	1455	+105	1415	+105		
- west of main access	1380	+ 30	1230	+30		
- east of transitway	1080	+30	1045	+30		
- east of Mimosa Road	790	+30	645	+30		
Restwell Road						
- west of Prairie Vale Road	1240	+75	1020	+95		
- east of main access	1220	+75	1140	+95		
- east of transitway	1065	+65	1100	+65		
- east of Mimosa Road	775	+65	820	+65		
Prairie Vale Road						
<ul> <li>north of Polding Street</li> </ul>	835	+30	765	+30		
- south of Polding Street	1370	+0	1050	+0		
- east of Restwell Road	1350	+0	895	+0		
- south of Restwell Road	1320	+75	1265	+95		
Mimosa Road						
<ul> <li>north of Polding Street</li> </ul>	1005	+20	670	+20		
- south of Polding Street	1090	+10	775	+10		
- north of Restwell Road	915	+5	860	+5		
- south of Restwell Road	580	+20	840	+20		
Site Accesses						
- eastern Polding Street access	1300	+165	1345	+165		
- western Polding Street access	155	+0	150	+0		
- Restwell Road access	1255	+170	1455	+170		

- 3.21 Examination of Table 3.1 reveals that, with additional development traffic, the following changes in traffic flows on the road network would occur:
  - Traffic flows on Polding Street would increase by some 30 to 105 vehicles per hour (two way) in the peak periods;
  - Traffic flows on Restwell Road would increase by some 65 to 75 vehicles per hour (two way) in the peak periods;

- Traffic flows on Prairie Vale Road would increase by some 30 vehicles per hour (two way), north of Polding Street in the peak periods. South of Restwell Road, traffic flows would increase by some 95 vehicles per hour (two way); and
- Traffic flows on Mimosa Road, north of Polding Street would increase by some 20 vehicles per hour (two way) in the peak periods. South of Polding Street, traffic flows would increase by up to some 10 to 20 vehicles per hour (two way) in the peak periods.
- 3.22 The operations of the intersections analysed in Chapter 2 have been analysed using SIDRA with development traffic in place (including traffic from the approved extensions). The results of the analysis are summarised below in Table 3.2:

Table 3.2	Summary of SIDRA Analysis – Average Delay per Vehicle (seconds) + Level of							
	Service (LOS)	OS)						
Intersection		Thursday			Saturday			
		Existing	+Stage I	+Stage 2	Existing	+Stage I	+Stage 2	
Polding St/Pr	airie Vale Rd	46 (D)	48 (D)	49 (D)	36 (C)	40 (C)	41 (C)	
Polding St/Ed	astern Access	22 (B)	24 (B)*	24 (B)*	22 (B)	24 (B)*	25 (B)*	
Polding Stree	et/Mimosa Road	31 (C)	31 (C)	31 (C)	23 (B)	23 (B)	23 (B)	
Polding St/W	estern Access	13 (A)	13 (A)	13 (A)	11 (A)	12 (A)	12 (A)	
Restwell Roa	Restwell Road/Mimosa Road		13 (A)					
Restwell Roa	d/Site Access	19 (B)	21 (B)	22 (B)	20 (B)	22 (B)	24 (B)	
Restwell Rd/	Prairie Vale Rd	19 (B)	20 (B)	21 (B)	22 (B)	23 (B)	23 (B)	

\*with extended right turn bay on site access approach (as suggested by Council and RMS)

 the internal roundabouts on the north south spine road would operate with average delays per vehicle of less than 20 seconds for both peak periods. This represents level of service B, a good level of intersection operation.

- 3.23 Examination of Table 3.2 reveals that all intersections (except Polding Street/Prairie Vale Road in the Thursday afternoon peak period) would operate at a satisfactory better level of service with Stage 2 traffic in place, the same as the existing situation with only minor increases in average delays of about one second per vehicle. In the Thursday afternoon peak period, with Stage 2 traffic in place, the intersection of Polding Street and Prairie Vale Road would operate at LOS D with only minor increases in average delay.
- 3.24 The internal roundabouts on the north south spine road would operate with average delays per vehicle of less than 20 seconds for both peak periods. This represents level of service B, a good level of intersection operation.
- 3.25 Thus the road network could cater for the traffic generated by the proposed Stage 2 extensions to the shopping centre.

#### **Construction Management**

- 3.26 At this stage a builder has not been appointed for the construction of the development and hence the construction methodology, process and staging have not been defined. The preparation of the construction traffic management plan, signage detail, control of pedestrians and control and management of construction vehicles in the vicinity of the site will be the responsibility of the appointed builder, The plan will be lodged with Council and other relevant authorities for approval prior to the commencement of demolition/construction. Set out below is a proposed construction management plan, based on similar experience at other shopping centres and information provided by Stockland, noting that it is subject to change when a builder is appointed.
- 3.27 During the construction phase it would be anticipated that work zones would be required along the North-South Spine Road, at various times. The loading and

unloading of construction material from trucks, associated with the overall construction activity, will be carried out either on-site or from the on-street work zone. Construction material will be stored on-site within designated material handling areas.

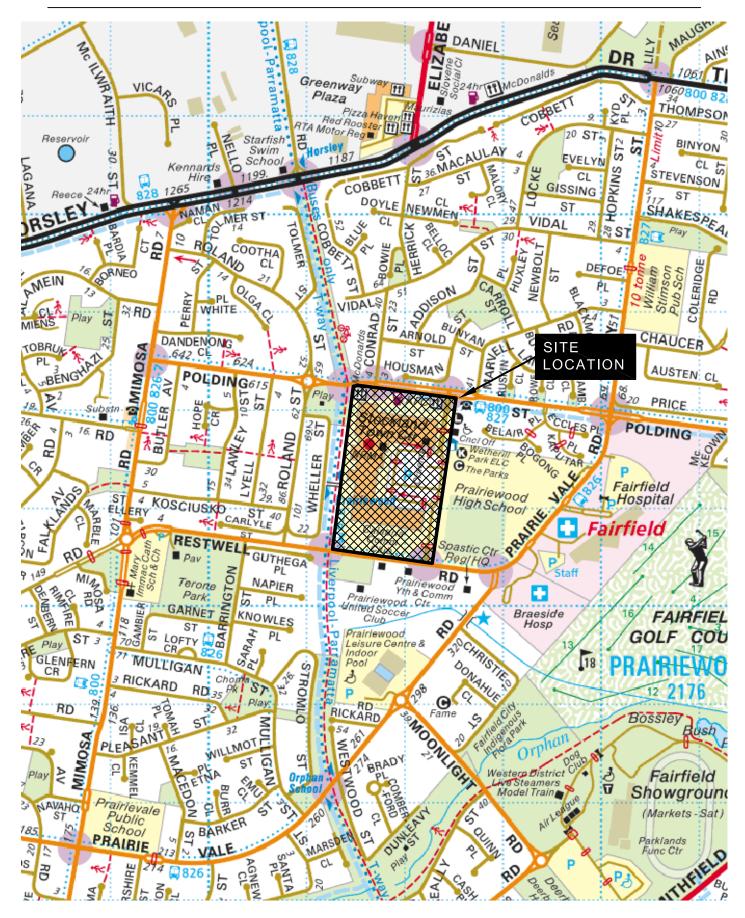
- 3.28 The pedestrian movements adjacent to the work zones will be maintained during the construction period. Pedestrian activity will be protected with the provision of a Class A construction fence erected around the perimeter of the site. Scaffolding and overhead protection will be provided, where required.
- 3.29 The construction access driveways will be managed and controlled by qualified site personnel. Pedestrian warning signs will be erected adjacent to the driveway. The movement of trucks entering and exiting the site will be managed and controlled by flagmen.
- 3.30 The overall principles for traffic management during construction of the development will be:
  - provide a convenient and appropriate environment for pedestrians;
  - minimise effects on pedestrian movements and amenity;
  - provide appropriate safety fencing around the perimeter of the site;
  - manage and control vehicular movements to and from the site;
  - maintain traffic capacity at intersections and mid-block in the vicinity of the site;
  - manage and control the on-street work zone;

- maintain existing on-street parking in the vicinity of the site;
- restrict construction vehicle activity to designated truck routes through the area (to be identified by the appointed builder);
- construction vehicles will generally enter and exit the site in a forward direction;
- construction vehicles will not be permitted to queue on-street in the vicinity of the site;
- construction activity to be carried out in accordance with the approved hours of construction;
- maintain safety for workers;
- provide convenient and appropriate access to the site for construction traffic; and
- manage and control vehicle activity in the vicinity of the site.
- 3.31 During construction on site parking will be varied with existing parking areas closed and new parking areas opened. Where practical new parking areas will be completed prior to existing areas being closed. Parking demand during construction will be reduced as some shops will be closed and there is typically a reduction in parking demand associated with construction work at shopping centres (generally due a perceived inconvenience to shoppers). As noted in Chapter 2 there is a surplus of parking spaces for the existing shopping centre that could be used for any temporary loss of parking.

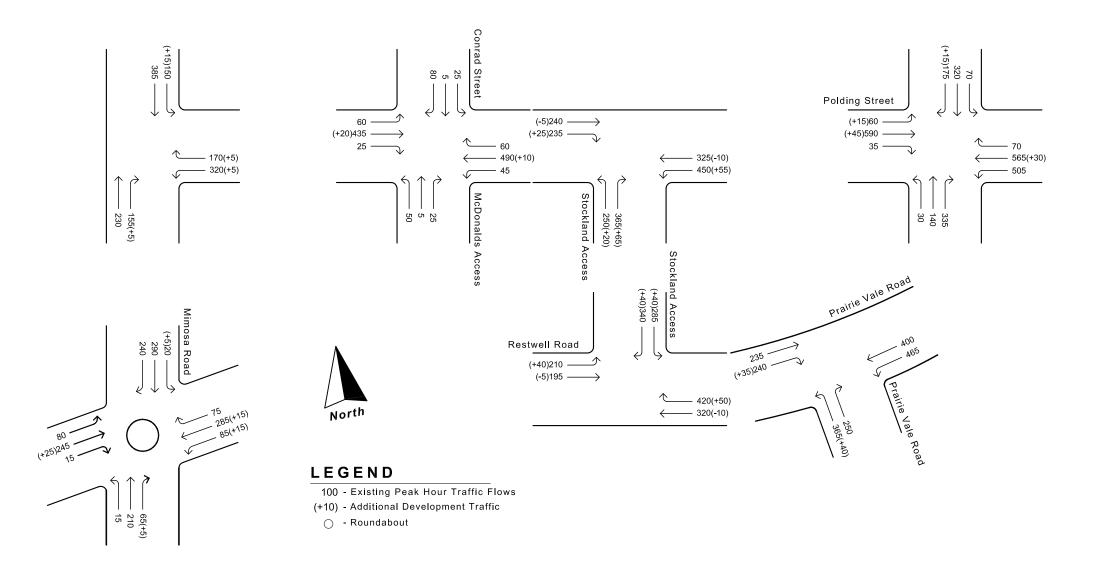
### Summary

- 3.32 In summary the main points relating to implications of the proposed Stage 2 extensions to the shopping centre are:
  - The proposed Stage 2 extensions involve reconfiguration of existing parking and retail uses within the centre of the site to provide an additional 5,664m<sup>2</sup> of retail area and an additional 227 parking spaces;
  - ii) A Section 96 Application to the Stage I approval has been lodged with Council. This would reduce the approved GLA by some 1,675m<sup>2</sup> with no change in parking provision. Thus the net increase in GLA from the Stage 2 DA and Section 96 to the Stage I approval would be some 3,989m<sup>2</sup>;
  - iii) The proposed parking provision is considered appropriate and complies with the requirements of Fairfield City Wide DCP;
  - iv) No changes in access arrangements are proposed;
  - v) Internal layout and servicing arrangements are considered appropriate;
  - vi) The site is highly accessible by public transport;
  - vii) Pedestrian access to the centre will be maintained from all frontages to the site;
  - viii) The surrounding road network can cater for the traffic generated by the proposed alterations and additions;

 ix) The preparation of the construction traffic management plan, signage detail, control of pedestrians and control and management of construction vehicles in the vicinity of the site will be the responsibility of the appointed builder.

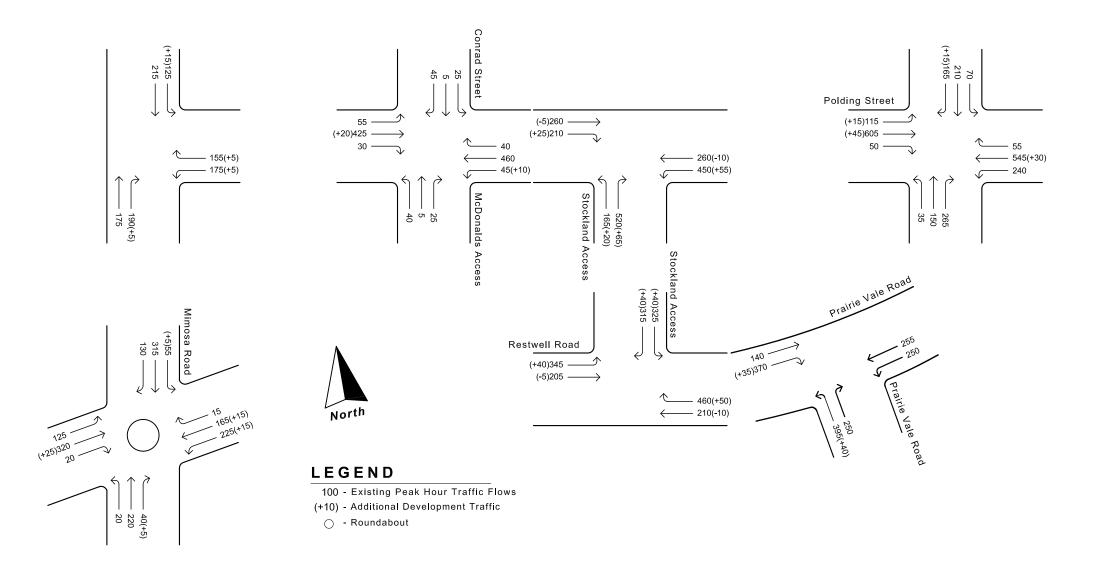


# Location Plan



Existing Thursday afternoon peak hour traffic flows plus development traffic

## Figure 2



Existing Saturday midday peak hour traffic flows plus development traffic

 Colston Budd Hunt & Kafes Pty Ltd

 DRAWN BY CBHK Pty Ltd\_hs
 Ref: 8547
 17 July 2012

## Figure 3