Colston Budd Hunt & Kafes Pty Ltd

Our Ref: TR\7823\jj

21 June, 2011

as Trustee for C & B Unit Trust ABN 27 623 918 759

> Transport Planning Town Planning Retail Studies

Fabcot Pty Ltd c/- Rennew Constructions Pty Ltd Suite 11 71 Penshurst Street WILLOUGHBY NSW 2068

Attention: Steve Richardson Email: srrenew@bigpond.net.au

Dear Sir,

RE: PROPOSED SUPERMARKET, SMITH STREET, CHATSWOOD

1. As requested, following our meeting with the RTA in May 2011, we have reviewed the traffic effects of the proposed supermarket to take into account the opening of Bunnings, the potential to upgrade the intersections of Eastern Valley Way with Smith Street and Castle Cove Drive (by extending the right turn lanes on Eastern Valley Way) and the matters raised by the RTA at the meeting. Our findings are set out below.

Updated Traffic Surveys

- 2. We have undertaken traffic surveys in the Thursday afternoon and Saturday midday peak periods at the following intersections after the opening of Bunnings:
 - Smith Street/Eastern Valley Way;
 - Castle Cove Drive/Eastern Valley Way; and
 - □ Smith Street/Gibbes Street.
- 3. The results of these surveys (along with the pre-Bunnings surveys) are summarised in Table I below.

Table 3.1 : Summary of Two Way Peak Hour Traffic Flows (Vehicles Per Hour)				
	Thursday Afternoon		Saturday Midday	
Location				
	Pre-	Post-	Pre-	Post-
	Bunnings	Bunnings	Bunnings	Bunnings
	(May 2010)	(May 2011	(May 2010)	(May 2011
Eastern Valley Way				
 north of Castle Cove Drive 	3180	3355 (+175)	2870	3155(+285)
 north of Smith Street 	3425	3570 (+145)	3030	3290(+260)
– south of Smith Street	2870	2735 (-135)	2745	2690(-55)
Smith Street				
– west of Eastern Valley Way	865	1035(+170)	815	980(+165)
 west of Gibbes Street 	900	1020(+120)	845	1010(+165)
Gibbes Street				
 north of Smith Street 	300	255(-45)	290	270(-15)
– south of Smith Street	30	60(+30)	20	40(+20)
Castle Cove Drive				
 – east of Eastern Valley Way 	295	295(+0)	300	+295(-5)

- 4. Examination of Table I reveals that:
 - traffic flows on Eastern Valley Way (north of Smith Street) increased by some 145 to 285 vehicles per hour (two-way). South of Smith Street traffic flows decreased by some 55 to 135 vehicles per hour (two-way);
 - traffic flows on Smith Street increased by some 120 to 170 vehicles per hour (two-way); and
 - traffic flows on Castle Cove Drive did not change.
- 5. Access to Bunnings store is via Smith Street and Gibbes Street. Thus by adding the changes in traffic flow on these streets an estimate of the additional traffic generated by Bunnings can be made. This would result in Bunnings generating some 250 to 300 vehicles per hour (two way).

Analysis of Eastern Valley/Smith Street/Castle Cove Drive Intersections

6. At the meeting with the RTA, the RTA raised concern that the above intersections had been assessed in SIDRA as two separate T-intersections. The RTA noted that the proximity of the two intersections resulted in the two intersections operating as one intersection. To address this concern we have reanalysed the intersections as a four way intersection using SIDRA. The analysis found that in the existing Thursday afternoon peak period that the intersection operated with average delays of some 45 seconds per vehicle. This represents level of service D (Satisfactory but operating near capacity). The analysis found that there was significant queuing on the Eastern Valley Way

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approaches (some 360 metres northbound and some 230 metres southbound) with the right turn bays overflowing and affecting through traffic movements.

7. The SIDRA model was rerun with traffic from the proposed supermarket in place. The analysis found that the intersection would operate with average delays of some 50 seconds per vehicle. This represents level of service D (Satisfactory but operating near capacity). The analysis found that queuing on the Eastern Valley Way would increase by some 55 metres northbound and some 15 metres southbound.

Possible Intersection Improvements

- 8. The RTA and Richmond+Ross (on behalf of Woolworths) have investigated opportunities to increase capacity at the intersections of Eastern Valley Way with Smith Street and Castle Cove Drive by lengthening the right turn bays on Eastern Valley Way. The Richmond+Ross scheme widens Eastern Valley Way on the eastern side of the road, while the RTA scheme widens Eastern Valley Way on the western side of the road. Both options lengthen the right turn bays to some 100 metres (from some 20 metres).
- 9. Both options would provide the same traffic benefits (subject to satisfying road design criteria). The SIDRA model was rerun with the right turn bays lengthened on Eastern Valley Way and supermarket traffic in place. The analysis found that the intersection would continue to operate at level of service D. However, average delays per vehicle on Eastern Valley Way would reduce (one to four seconds per vehicle) and queue lengths would reduce (by some 10 to 30 metres). Additional storage capacity would also reduce the incidence of overflow into the through traffic lanes and improve safety.
- 10. We trust the above provides the information you require. Finally, if you should have any queries, please do not hesitate to contact us.

Yours faithfully, COLSTON BUDD HUNT & KAFES PTY LTD

<u>T. Rogers</u> Director