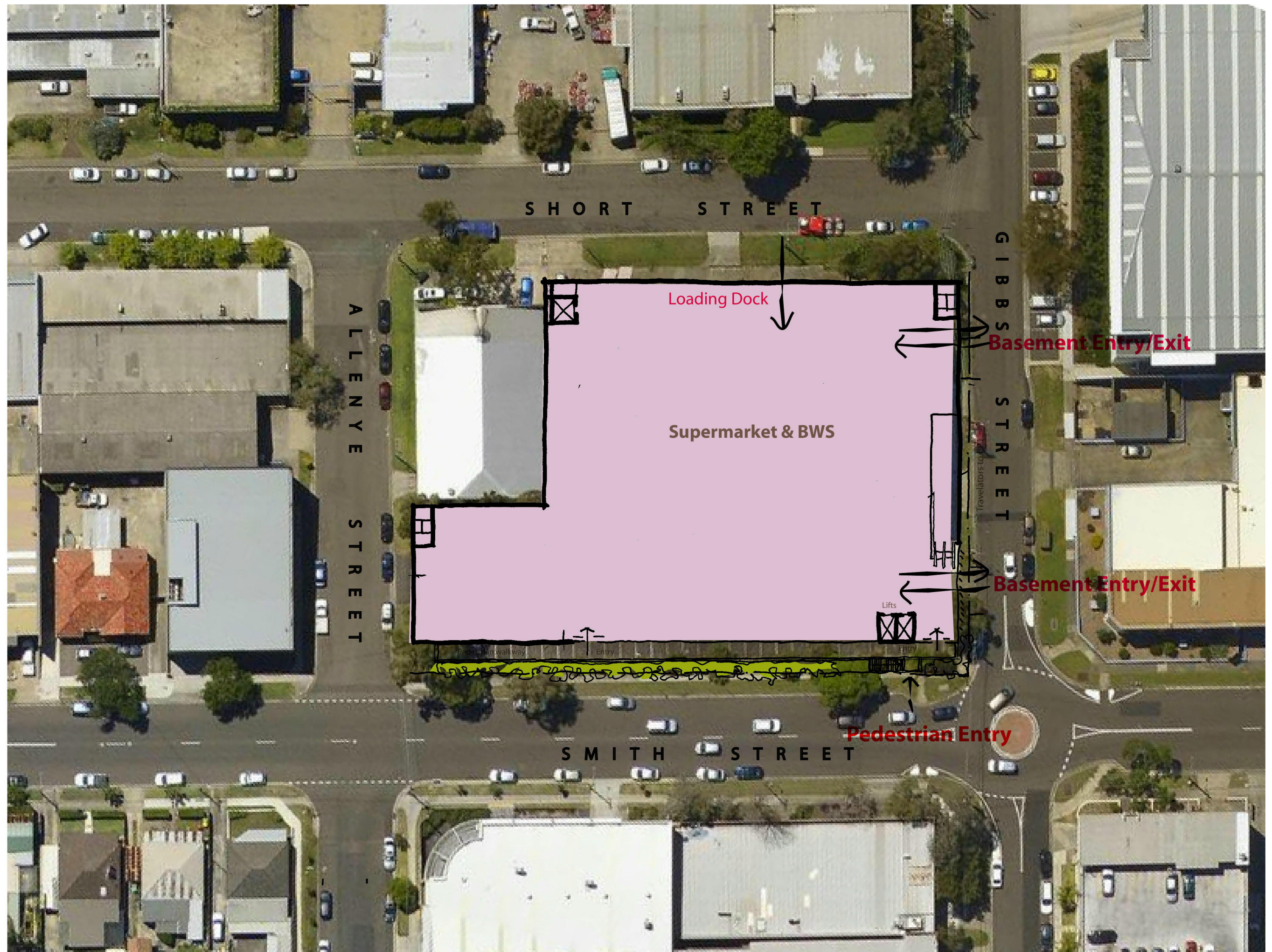




17- 19 Smith Street, Chatswood
Concept Plan



TOWN PLANNING
AND URBAN DESIGN



Colston Budd Hunt & Kafes Pty Ltd

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

Our Ref: TR\7823\jj

17 August, 2010

Transport Planning
Town Planning
Retail Studies

Fabcot Pty Ltd
c/- Renew 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, we have reviewed the traffic matters raised at a recent meeting with Council. These matters are summarised below:
 - ❑ Intersection of Smith Street and Eastern Valley Way – Concern with traffic turning left from Castle Cove Road onto Eastern Valley and then right into Smith Street, with particular focus in the build up of cars queuing in Eastern Valley Way turning right;
 - ❑ Big Picture Traffic - How will this project affect traffic in the LGA, eg may benefit traffic problems areas in other parts of the LGA, reduce overall traffic, better distribution of shopping traffic; and
 - ❑ Mixture of vehicles using this area. In particular potential conflict with traffic from existing uses such as North Shore Timber and Korean Church.
2. Our response to each of these issues is set out below. This response draws on information provided in our traffic report that accompanied the proposed rezoning (Report on Traffic Effects of Rezoning for Proposed Supermarket, 17-19 Smith Street, Chatswood, May 2010).

Intersection of Smith Street and Eastern Valley Way

3. As part of the approved Bunnings Development (currently under construction) this intersection will be upgraded to provide three lanes on the Smith Street approach (from two lanes). As part of our traffic report we analysed the operation of this intersection with Woolworths traffic added to existing plus Bunnings traffic (with the upgrades as required by the Bunnings development). The analysis found that

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the intersection would operate at a reasonable level of service in the weekday afternoon and Saturday midday peak periods.

4. With respect to the left turn onto Eastern Valley Way from Castle Cove Road and then right turn into Smith Street we note that the phasing of the traffic signals at the intersection allows for this movement to occur (noted as Phase C1 on the attached Traffic Control Signal Plan). As for all traffic signal controlled intersections the phasing and allocation of green time is determined by the RTA traffic management centre who typically give priority to traffic movements on the main road (in this case Eastern Valley Way). Thus this phase may not operate on each cycle, depending on demand and traffic conditions along Eastern Valley Way. We note the upgrade of the Smith Street approach will provide for increased capacity at the intersection and this may allow for additional green time to be allocated to the side street approaches.

Big Picture Traffic

5. As noted in our traffic report we assumed that traffic generated by the proposed supermarket was 'new' traffic. This approach was conservative as it did not take into account traffic generated by the existing car service centre has not been discounted or the redistribution of existing trips to supermarkets in the area (such as Chatswood, Northbridge or Forestville) that would change to use the proposed supermarket. Furthermore the proposed supermarket would result in people within the primary catchment being located closer to a supermarket and hence having to travel less distance in order to undertake their weekly shopping. This would result in a reduction in vehicle kilometres travelled with complementary environmental benefits of less fuel consumption, less vehicle emissions, and savings in travel time.
6. Based on information provided in the retail study that accompanied the rezoning, it is estimated that:
 - ❑ some 40% of the trade for the proposed supermarket will be relocated trips from Chatswood;
 - ❑ some 30% of the trade for the proposed supermarket will be relocated trips from Northbridge/Castlecrag;
 - ❑ some 10% of the trade for the proposed supermarket will be relocated trips from Willoughby; and
 - ❑ the balance of trade (some 20%) will be from Lindfield/Lane Cove/Forestville or new trips.
7. Using this information we have estimated the likely reduction in traffic generation to Northbridge/Castlecrag and Chatswood as these are the major areas that would be affected. As noted in our traffic report, based on RTA Guidelines the proposed supermarket would have a peak hour traffic generation of some 450 vehicles (two way) when passing trade is taken in account. This equates to some 4,500 vehicles per day (two way). Thus traffic to Chatswood would be reduced by

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some 1,800 vehicles per day (two way) and Northbridge/Castlecrag by some 1,350 vehicles per day (two way).

8. The proposed supermarket is located centrally within the primary trade area with Northbridge/Castlecrag located some three kilometres to the south and Chatswood some two kilometres to the west. Thus the majority of customers that would shop at the proposed supermarket would already be travelling in the vicinity of the site (along Smith Street or Eastern Valley Way). Thus customers who choose to shop at the new supermarket would have less distance to travel with associated reduction in fuel costs, vehicle emissions and reduced travel times. Based on the estimated reduction in traffic at Northbridge/Castlecrag and Chatswood we estimate that the savings in vehicle kilometres travelled (VKT) per year could be in the order of 2.8 million.
9. Using this conservative approach our traffic assessment found that the intersections of Smith Street/Eastern Valley Way and Castle Cove Road/Eastern Valley Way would operate at level of service (LOS) B with supermarket plus Bunnings traffic in place, and the intersection with Smith Street upgraded (as required for the Bunnings development). Intersection operations are rank from A (good) to F (at capacity). LOS B represents a good level of service with spare capacity. Thus the two intersections on Eastern Valley Way would operate at a good level of service. By way of comparison this level of intersection operation is better than some other intersections through which vehicles coming from the local area would currently pass through to access existing supermarkets.
10. It should be noted that the estimate of additional traffic from Castle Cove Drive (associated with the proposed supermarket) would be low at some 20 vehicles per hour in the peak hours. As noted above this is conservatively high as it is based on RTA traffic generation rates and does not take into account traffic generated by the existing car service centre or redistribution of existing supermarket trips. Such a small increase (one vehicle every 3 minutes) is unlikely to increase queuing on Castle Cove Drive.
11. Thus in summary the proposed supermarket would result in a reduction in traffic travelling to Chatswood and Northbridge/Castlecrag and would result in a substantial reduction in vehicle kilometres travelled with associated reduction in fuel costs, vehicle emissions and travel times.

Mixture of Vehicles Using This Area

12. The site of the proposed supermarket is located within the East Chatswood industrial area. Thus traffic within the area is a mix of cars and trucks. Smith Street which is located along the southern boundary of the site, acts as a feeder road into Chatswood town centre from the east. The roads in the area are wide two lane roads that have been designed to accommodate trucks. Our traffic assessment that accompanied the rezoning report noted that the surrounding road network can satisfactorily accommodate traffic from the proposed supermarket and approved Bunnings store.

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13. We understand that concern was raised at the recent meeting that traffic associated with the proposed supermarket could affect the operations of North Shore Timber and the Korean Church. Both of these are located on the southern side of Smith Street. We understand that you have contacted both operations and found the following:
- ❑ Korean Church – located at 28 Smith Street has only small numbers on Saturday for bible studies (numbers range from 30 to 40). On Sunday services operate from 8.00am to 5.00pm with numbers typically 100 at the 9.00am, 11.00am and 2.00pm services. The church has an arrangement to use the North Shore Timber and Hardware car park on Sundays; and
 - ❑ North Shore Timber and Hardware, operates Monday to Friday, 6.30am to 5.00pm and Saturday 7.30am to 1.00pm. It typically has one delivery truck per day.
14. Based on the above, the proposed supermarket would have minimal effect on the operation of these facilities as they generate minimal traffic and their peak activities do not coincide with peak traffic generation of the proposed supermarket. We note that any weekday afternoon or Saturday midday traffic associated with either use has been included in our traffic assessment.

Summary

15. In summary our review of the traffic matters raised has found the following:
- ❑ the intersection of Smith Street/Eastern Valley Way/Castle Cove Road can satisfactorily accommodate traffic from the proposed supermarket;
 - ❑ the proposed supermarket would result in a reduction in traffic travelling to Chatswood and Northbridge/Castlecrag and would result in a substantial reduction in vehicle kilometres travelled with associated reduction in fuel costs, vehicle emissions and travel times; and
 - ❑ the adjacent road network can satisfactorily accommodate traffic from the proposed supermarket.
16. 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



T. Rogers
Director

Colston Budd Hunt & Kafes Pty Ltd

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

Our Ref: TR\7823\jj

21 June, 2011

Transport Planning
Town Planning
Retail Studies

Fabcot Pty Ltd
c/- Renew 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 1 below.

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Table 3.1 : Summary of Two Way Peak Hour Traffic Flows (Vehicles Per Hour)				
Location	Thursday Afternoon		Saturday Midday	
	Pre-Bunnings (May 2010)	Post-Bunnings (May 2011)	Pre-Bunnings (May 2010)	Post-Bunnings (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

A handwritten signature in black ink, appearing to read 'T. Rogers', is written over the company name.

T. Rogers
Director

Colston Budd Hunt & Kafes Pty Ltd

a s T r u s t e e f o r C & B U n i t T r u s t
A B N 2 7 6 2 3 9 1 8 7 5 9

Our Ref: TR\9281\jj

T r a n s p o r t P l a n n i n g
T o w n P l a n n i n g
R e t a i l S t u d i e s

23 January 2014

Fabcot Pty Ltd
c/- Woolworths
PO Box 8000
BAULKHAM HILLS NSW 2153

Attention: Richard Armitage
Email: RArmitage@woolworths.com.au

Dear Sir,

RE: 17-19 SMITH STREET, CHATSWOOD EAST
TRAFFIC REVIEW

- I. As requested, we have reviewed the traffic effects of the planning proposal to allow retail development at 17-19 Smith Street, Chatswood East. We prepared a previous traffic report for rezoning of the site to allow a supermarket (some 3,900m²) on the site in 2012 (Updated Report on the Traffic Aspects of Rezoning for Proposed Supermarket – January 2012). The 2012 report concluded that:
- (i) *The site has good access to public transport;*
 - (ii) *Provision for parking, motor cycles and bicycles will be made in accordance with appropriate Council codes and RTA Guidelines;*
 - (iii) *Access to the site will be provided from Gibbes Street (car park) and Short Street (service area);*
 - (iv) *Parking layout and internal circulation will be designed to comply with AS2890.1-2004;*
 - (v) *Service arrangements will be designed to comply with AS2890.2-2002;*
 - (vi) *Woolworths and RMS are investigating possible improvements to the intersections of Eastern Valley Way with Castle Cove Drive and Smith Street to provide increased capacity and improve safety; and*

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- (vii) *The surrounding road network (with identified upgrades) will be able to cater for the additional traffic generated by the proposed supermarket.*
2. Subsequent to the 2012 report, RMS has advised in principle support for the improvements to the local road network identified in the report.
 3. The current planning proposal for the site is for a hybrid retail model which would allow for a warehouse, distribution and logistics functions to be provided on site. The business model is to be implemented in two stages.
 4. The first stage involves a “click and collect” function where a customer places an order online and collects that order from the site at a designated collection point, which is not within the trading floor. The first stage also includes an “online fulfilment” function where a customer also places an order online but chooses the home delivery of that order, which is managed by staff on-site who pick and package the order. The distribution of these orders is managed by a fleet of small Woolworths trucks. Woolworths seeks to operate these functions 24 hours a day, seven days a week. These functions are therefore best suited to the industrial zone and in close proximity to the major arterial road network. The first stage also seeks the ability for customers to undertake traditional face to face retailing, which is shopping within the trading floor.
 5. The second stage is to build capacity at this site to support a future “dark box” which Woolworths is in the initial phase of implementing. A “dark box” involves a warehouse and distribution centre to enable foodstuffs to be processed in a timely manner to meet online orders – that is online only transactions, where Woolworths staff pick the customer order and facilitate its distribution. There would be the ability in the future to provide a “staging point” for the freight and logistics components of the selected location of the “dark box”.
 6. With respect to traffic the Stage 1 would have similar traffic effects compared to the proposal assessed in our 2012 traffic report. In Stage 1, the proposed development would operate as a traditional supermarket with the additional “click and collect” facility and “on line fulfillment” functions. The “click and collect” facility would capture customers who would have parked and entered the supermarket and thus not generate additional traffic. To accommodate the goods ordered on line, a designated pick up area will be provided on site. Details of the collection operation will be provided as part of a DA.
 7. The “click and collect” facility will reduce parking requirements as customers will not be required to park and enter the supermarket to make purchases.

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The “on line fulfillment” function will result in an increase in truck movements to/from the site, with additional trucks bringing goods to the site and small trucks operating from the site (making home deliveries). Experience at other similar operations in Australia indicates the “on line fulfillment” function generates some 20 to 30 truck movements per day (two way), the majority of which (16 to 24) would be small trucks associated with home deliveries. This is equivalent of 2 to 4 truck movements per hour (two way). Such a minor increase would not change the traffic effects compared to the previous assessment.

8. In Stage 2, the traditional supermarket function would be replaced with a “dark box” in which customers would not enter the store. The site would operate solely as a warehouse and distribution centre and a “click and collect” facility. In these circumstances the traffic generation would be less than a traditional supermarket. An increase in truck movements associated with the “dark box” operation would much smaller than the decrease in customer vehicle movements associated with the ceasing of the typical supermarket operations. Timing for the transition from Stage 1 to Stage 2 would be determined by customer demand.
9. Thus in summary the traffic effects of the proposed development (both Stage 1 and Stage 2) would be similar or less than the proposal assessed in our 2012 traffic report.
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

A handwritten signature in black ink, appearing to read 'Tim Rogers', with a stylized flourish at the end.

Tim Rogers
Director