



15 October 2013  
Ref 13158

The General Manager  
North Sydney Council  
200 Miller Street  
NORTH SYDNEY NSW 2060

Dear Sir/Madam,

**DEVELOPMENT APPLICATION NUMBER 65/2003**  
**PROPOSED EXPANSION OF SUPERMARKET AND PUBLIC CAR PARKING AREA**  
**TRAFFIC MATTERS**

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I refer to the letter dated 14 October 2013 prepared by *The Planning Group NSW Pty Ltd* on behalf of the applicant. The following advice is provided in response to the traffic-related matters raised in Item 3.0 of the applicant's letter concerning the entry and exit driveways.

The comparison of the kerb nib proposed between the entry lanes to the car park and the adjacent Willoughby Lane with a *pedestrian refuge island* is not valid.

A *pedestrian refuge island* provides a refuge for pedestrians from traffic which is travelling in opposite directions, where pedestrians can clearly identify the *intended path* of the approaching vehicle.

By contrast, traffic flows travelling on either side of the proposed kerb nib would be travelling in the same direction after turning left or right from Burlington Street. Because of the narrow width of the proposed kerb nib, the *intended path* of vehicles turning from Burlington Street will not always be obvious to pedestrians, as would be the case at a conventional *pedestrian refuge island*.

The recommended increase in separation to 3m between the traffic movements turning into the car park entrance or into Willoughby Lane would therefore make it easier for pedestrians to determine *which side* of the proposed kerb nib was the *intended path* of the approaching vehicle.

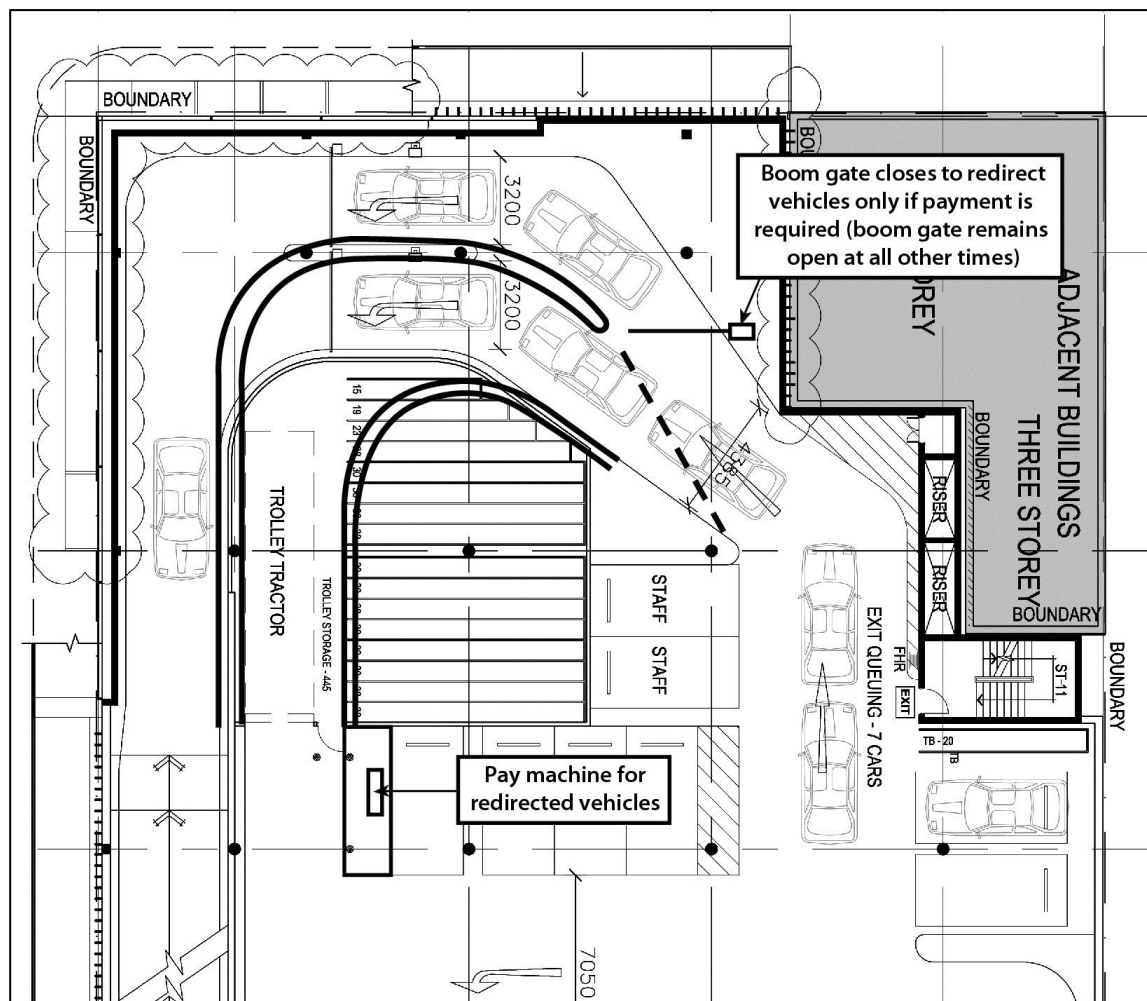
The capacity analysis based on 300 vehicles per hour per boom gate is not relevant, particularly in circumstances where access to the second boom gate could be blocked by just two cars waiting at the first boom gate. However, *Clause 3.4 Queuing Areas* of *AS2890.1 – 2004* requires **a minimum queuing length of 3 cars per lane**.

In addition, for a car park with 296 spaces *Table 3.3* of *AS2890.1 – 2004* requires the following minimum queue length of 18 cars (or two lanes with 9 cars each) as set out below:

First 100 cars; 3% of capacity:	9 cars
Second 100 cars; 2% of capacity:	6 cars
Additional Cars; 1% of capacity:	3 cars
<b>Total Queuing Length Required:</b>	<b>18 cars</b>

The proposed queuing area at the exit boom gates has the capacity to accommodate only 7 cars before circulation around car park level 1 could be blocked, and/or entry into the car park could also be blocked.

The implementation of a *ticketless* boom gate/payment system (of the same type used at the Woolworths Lane Cove car park) would alleviate these concerns. A *ticketless* boom gate system uses conventional number plate recognition software to identify a vehicle which has overstayed the time limit and redirects those vehicles to a payment machine by *closing* the boom gate. The exit boom gate therefore remains open at all other times, thereby allowing for the free flow of traffic in/out of the car park without *any* queuing.



In summary, the queuing arrangements and conflicts between the entry/exit movements in the car park as currently proposed are considered to be unacceptable, and would be sufficient to warrant refusal of development consent.

Conversely, a *ticketless* entry/exit arrangement could be implemented with only minor changes to the layout of the southern end of the level 1 car parking area.

It is therefore recommended that condition of development consent be imposed requiring the implementation of a *ticketless* parking system to control the operation of the proposed public car parking area.

Please do not hesitate to contact me on telephone 9904 3224 should you have any enquiries.

Yours sincerely

A handwritten signature in black ink, appearing to read 'R Varga', with a long horizontal stroke extending to the right.

Robert Varga  
Director  
Varga Traffic Planning Pty Ltd