

Our Ref: 14S1107000

9 December 2013

City of Canada Bay
1a Marlborough Street, Drummoyne NSW 2047
DRUMMOYNE NSW 2047

Attention: Ms Ursula Lang (Urban Renewal Manager, Rhodes Peninsula)

Dear Ursula

RE: RHODES STATION PRECINCT PROPOSED DEVELOPMENT UPLIFT PRELIMINARY TRAFFIC MODELLING RESULTS

This letter provides preliminary traffic modelling results in relation to Billbergia's proposed development uplift for Station Precinct at Rhodes.

Intersection capacity analysis has been conducted for a number of key intersections in the vicinity of the site to assess the traffic implications of the proposed "uplift" in Station Precinct. Three traffic scenarios have been considered as follows:

- Scenario 1 (S1) – existing bases case conditions (using 2013 traffic surveys)
- Scenario 2 (S2) – S1 above plus current approved development (including all developments built, but not yet occupied as advised by Council in email dated 25 November 2013), and
- Scenario 3 (S3) – S2 above plus proposed uplift development at Precinct D including the extra developments from the Toon Concept Plan.

Scenario 2 (S2) incorporates the following approved developments within Precinct D:

- 68,771m² of residential development, and
- 10,020m² of retail/commercial development.

Scenario 3 (S3) incorporates the following "uplift":

- 18,903m² of residential development
- 313m² of retail development
- 4,659m² commercial development
- 9,815m² (100 room) hotel, and
- 8,536m² of recreational facilities (with 200 car parking spaces).

Scenario 3 (S3) proposed uplift is consistent to the scheme presented at the Councillor workshop on 3 December 2013.

The preliminary modelling results are presented in Table 1 and Table 2 for the morning and evening peak periods respectively.

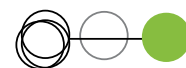


Table 1: Morning Peak Preliminary Traffic Modelling Results

Intersections	Scenario S1		Scenario S2		Scenario S3	
	Avg Delay (sec)	LoS	Avg Delay (sec)	LoS	Avg Delay (sec)	LoS
Shoreline Dr- Rider Blvd	14	A	18	B	29	C
Mary St- Rider Blvd	9	A	10	A	11	A
Gauthorpe St- Walker St	9	A	9	A	10	A
Homebush Bay Dr- Concord Rd	73	F	80	F	84	F
Homebush Bay Dr- Oulton Ave	8	A	10	A	11	A
Concord Rd- Averill St	87	F	87	F	87	F

Table 2: Evening Peak Preliminary Traffic Modelling Results

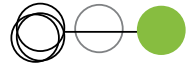
Intersections	Scenario S1		Scenario S2		Scenario S3	
	Avg Delay (sec)	LoS	Avg Delay (sec)	LoS	Avg Delay (sec)	LoS
Shoreline Dr- Rider Blvd	14	A	19	B	26	B
Mary St- Rider Blvd	9	A	10	A	11	A
Gauthorpe St- Walker St	9	A	10	A	10	A
Homebush Bay Dr- Concord Rd	86	F	97	F	100	F
Homebush Bay Dr- Oulton Ave	9	A	9	A	10	A
Concord Rd- Averill St	59	E	59	E	59	E

RMS uses level of service to determine how well an intersection is performing. It ranges from LoS A to LoS F, and is based on intersection delays experienced by all traffic travelling through the intersection. LoS A indicates an intersection is operating efficiently, while LoS F indicates the intersection is experiencing congestion. LoS D is the long term desirable intersection performance. It is noted that some major intersections around Sydney are operating at LoS F.

Our traffic modelling results indicate the assessed intersections in Scenario 1 are currently operating satisfactorily during both peak periods with the exception of the Homebush Bay Drive and Averill Street intersections with Concord Road. These intersections currently operate with good level of service at LoS B or better with minimal delays, while the Homebush Bay Drive and Averill Street intersections currently operate with LoS F with extensive northbound queues on Concord Road in both peak periods. The extensive queues on Concord Road are a result of downstream congestion located outside of the study area on Church Street near Top Ryde in the morning peak period, and on Homebush Bay Drive at its interchange with the M4 Motorway. It is further noted that the intersection analysis results for the intersections along Homebush Bay Drive/Concord Road are generally consistent with the results from the 2008/2009 traffic study.

Traffic operating conditions in Scenario 2 are similar to that found in Scenario 1. That is, all assessed intersections continue to operate satisfactorily with the exception of the Homebush Bay Drive and Averill Street intersections with Concord Road.

Similarly, traffic conditions in Scenario 3 (i.e. with the traffic arising from the proposed uplift added) would continue to be satisfactory. The Shoreline Drive-Rider Boulevard would experience a slight increase in delay, but would continue to operate with acceptable level of service (i.e. LoS C) in both peak periods. It is also noted that the Homebush Bay Drive and Averill Street intersections with Concord Road are predicted to operate at LoS F, but the performance levels



are expected to be very similar to both Scenarios 1 and 2. As indicated above, delays are due to regional traffic effects originated outside of the Rhodes study area.

From the above, our analysis indicates that the traffic arising from the proposed uplift would not result in any noticeable adverse traffic impacts when compared with traffic conditions under the approved development.

We trust the above is of assistance. Naturally, should you have any questions or require any further information, please do not hesitate to contact me in our Sydney office on (02) 8448 1800.

Yours sincerely

GTA CONSULTANTS

Michael Lee
Associate