15 February 2021

Steven Adams The Scots College Victoria Road Bellevue Hill NSW 2023

Dear Steven

## 1. McIntyre Court car park proposal – Traffic Analysis Addendum

This letter has been prepared as part of the assessment process relating to the proposal t construct a car park beneath the McIntyre Tennis Courts within the Scots College Bellevue Hill campus. The car park is to be provided for staff, which will remove parking demand from the surrounding road network and result in compliance with the relevant DCP provisions when assessed across the whole campus. The traffic activity associated with the car park is occurring within the road network at present, however, trips will be diverted to/from the new entry on Cranbrook Lane. This has been assessed with the findings presented in the Traffic Impact Assessment that accompanied the Development Application.

As part of the approval process the application has been reviewed by the Development Assessment Panel and during the presentation of the project, the panel requested information regarding the revision of the student population cap that applies to the college.

It is noted that the subject DA and a separate DA for the construction of a drop-off area within the Ginahgulla Road campus do not specifically seek to adjust the student cap within the Victoria Road campus, however through discussions with Woollahra Council it was agreed that the two projects would provide a pathway to the adjustment of the cap through a Section 4.55 application affecting the approval containing the consent condition capping the student population to 1,120 students.

To provide clarity, this assessment is limited to the Victoria Road campus, meaning the western and eastern properties on both sides of Victoria Road. Regardless of any question over which properties the condition applies, we have assumed for the purposes of this assessment that the student population (cap or actual) applies to both properties. In this regard, the student population is summarised in the following table:

College Unit	Location	Academic Year	Student Cap	Existing Student Population
Victoria Road Campus	Ginahgulla Campus	5-6		253
	Main Campus	7-12	1,120	1,122*
Glengarry			114	
	1,489			

\* Includes 198 Boarders

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The revision of the student cap seeks a maximum of 1,520 students.

In terms of assessing the traffic impact of the increase in students, we have adopted the following process given that some of the traffic activity is already occurring:



Based on our travel mode surveys of the school, we have determined the following trip rates application to students. The travel surveys were undertaken in year groups, and therefore we are able to present site specific rates for the west and east sides of Victoria Road.

West = 0.6 trips per student

East = 0.38 trips per student

These rates account for boarding students and students arriving by car where there is more than one student in the vehicle.

Based on these rates the following trips are calculated:

Campus	Trip Rate	Traffic Generation			
		Capped Population	Existing Population	Proposed Cap	
West	0.60	250* = 150 trips	253 = 152 trips	250 = 150 trips	
East	0.38	870* = 330 trips	1,122 = 426 trips	1,270 = 483 trips	
Total		1,120 = 480 trips	1,375 = 578 trips	1,520 = 633 trips	
			98 more than cap	153 more than cap	
				55 more than existing	

\* The condition doesn't specify the cap in relation to each side of Victoria Road, however we have nominated these figures based on the current population.

In summary, the college currently generates approximately 578 vehicle trips in the morning and afternoon peak. If the cap were strictly applied this would reduce by 98 trips. We have run this scenario within the SIDRA modelling of the Victoria Road intersections with Cranbrook Road and Ginahgulla Road to determine the difference in operation at these intersections.

The analysis has been conducted for the following key intersections based upon the survey data collected on 11<sup>th</sup> April 2018 during the pre-Covid-19 period. This is considered to be more accurate than current conditions given that people have changed mode share with regard to the limited capacity of public transport.

Intersection Leg	Time	Period	Level of Service	Degree of Saturation (v/c)	Average Delay (s)	95% Queue Length (m)
Victoria Road / Ginahgulla Road	AM Peak	Existing	В	0.692	17.4	8.2
		Current Cap	В	0.622	17.0	7.2
		Proposed Cap	В	0.728	18.0	8.7

Intersection Leg	Time	Period	Level of Service	Degree of Saturation (v/c)	Average Delay (s)	95% Queue Length (m)
Victoria Road / Cranbrook Road	AM Peak	Existing	А	0.312	3.1	1.1
		Current Cap	А	0.282	3.0	1.0
		Proposed Cap	А	0.325	3.1	1.2

## 1.1.1 Victoria Road & Ginahgulla Road

The SIDRA analysis indicates that the intersection remains at LOS B under each scenario with only a minor increase in performance under the current cap scenario, and a slight decrease in performance for the proposed cap scenario, but within levels that would be unnoticeable on site. The intersection will continue to operate with a spare capacity of below 80%. Therefore, the traffic impact due to the proposed development will be minor.

## 1.1.2 Cranbrook Road & Victoria Road

The results from the analysis indicate that the level of service remains at LOS A with very little difference between the scenarios. The intersection will continue to operate with a minimum spare capacity of over 65%.

Based on these results, the current student population causes no notable difference in the operation of the local intersections when compared with a scenario whereby the current cap is applied. Further the traffic activity associated with an increase in the cap to 1,520 students will cause minimal impact to the local road network.

I trust that this assessment assists in the determination of the application. Should further clarification be required, I am available for discussion either with Council or the Panel.

Yours faithfully

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Andrew Morse Director

**Document Control:** Prepared by AM on 15 February 2021. Reviewed by AM on 15 February 2021.