REVIEW and ADDENDUM to

2007 APPLICATION

THE MAR NARSAI ASSYRIAN COLLEGE - HORSLEY RD, HORSLEY PARK

The Assyrian School Limit submitted plans for a High School/College in Horsley Road to the City of Fairfield Council in 2007. The Development Application was supported by a Traffic Report prepared by MWT. The report was prepared in August 2007.

Council has asked for a review of this report to consider changes that might have occurred over the last 6 years and has made additional comments on the application.

Stapleton Transportation and Planning have been asked to conduct this review and respond to additional information required by Council.

Part 1 Review of 2007 Traffic Report.

We reviewed the MWT report and noted:

- The methodology of used to estimate traffic generation and the impact on existing traffic is the same as we would use for this task. I.e. obtain figures from other similar schools, count existing traffic in the peak periods and calculate the impact of the school on the existing traffic, check the details of the layout.

STAPLETON TRANSPORTATION AND PLANNING Pty Ltd

Level 9, 99 Bathurst Street, Sydney, NSW 2000

Phone +61 2 9264 7827 Email stap@ozemail.com.au

www.stap.com.au

- The morning drop-off period will be the busiest time of day at the College.

- The estimate for traffic generation made in the study is a maximum figure and does not account for students not attending or arriving early or late due, say, to extra curricular activities. It its therefore possibly by as much as 15% more traffic than the true demand. Any results should be considered in this light.

- Traffic in Horsley Rd east of the college (at Lincoln Rd) will increase from 176 vehicles per hour to a maximum of 799 vehicles per hour when the college is operating.

- The Level of Service (LoS) at Lincoln Rd will alter from the existing LoS A to LoS B when the college is complete (Table 5.6 Page 12).

We noted that the average delay at Lincoln Rd after the College has opened is estimated to be 26s; this is close to the maximum description for LoS 28s (Table 2.2 Page 3). Our concern was that some development in the neighbourhood might have increased the existing traffic to the point that delays would be in excess of 28s thereby changing the conclusions. (This would not be a no-go condition but it might change the conclusions).

We conducted traffic counts at the intersection of Horsley Rd and Lincoln Rd on the 3rd June and compared the 2013 figures with the 2006 figures.

Conclusions

The change in demand in local traffic between 2007 and 2013 is very small (9%) indicating that no major change of Land Use or road connectivity has occurred over the last 7 years.

The total hourly volume of traffic in Horsley Rd at Lincoln Rd, local traffic plus generated traffic, was 799 in the 2006 report. Using the 2013 counts the total

demand is amended to 815 per hour, 16 more vehicles, an increase of 2%.

We conclude there has been no significant change in traffic over the last 7 years that no further analysis of the intersection of Horsley Rd and Lincoln Rd is required.

Part 2 Further Investigations.

Council's officers have discussed the need to check the impact on the intersection of Horsey Rd and The Horsley Dr. This is a roundabout located near a small shopping centre west of Wallgrove Rd.

Traffic counts were conducted in the morning and afternoon school peak. (8.00am to 9.15am and 2.45pm to 4.00pm). The total hourly traffic at this intersection is xxxx in the morning peak hour and xxxx in the afternoon peak hour.

These counts indicate that very little if any through traffic is moving through the area.

It is estimated that between 50% and 65% of traffic generated by the College will pass through this intersection.

Figure 6 Level of Service at Intersection of Horsley Rd and Horsley Dr

The Horsley Drive & Horlsey Road Roundabout	Level of Service		Average Delay (s)		Worst Delay (s)		Degree of Saturation		Queue 95% (m)	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Existing	A	A	9.8	10.0	13.5	13.3	0.16	0.14	6.2	5.2
Scenario A	A	A	9.6	9.9	14.8	14.9	0.31	0.33	14.2	15.2
Scenario B	A	A	9.4	9.8	14.6	15.2	0.35	0.36	17.6	17.4

We used SIDRA to evaluate delays at this intersection using 65% of the generated traffic. The results show the average delay at this intersection, in the worst case, will be 14.8s in the morning drop-off and 14.9s in the afternoon pick-up. The intersection

will operate at LoS 1. In all likelihood the demand will be less than the figures used in the analysis.

We conclude there is no requirement to improve this intersection.

Some concern has also been expressed about three other issues: -

1. The intersection of Wallgrove Rd and The Horsley Dr.

   This intersection is the subject of major strategic plans and upgrades and will be subject to large variations in demand.

   The school is unlikely to have any impact of the growth of regional traffic and could not properly be included in the strategic design parameters.

2. Adequacy of Kiss and Ride and on site traffic management.

   The bus zone has been carefully designed to keep it free of other traffic. The conflict of students reaching the buses and cars accessing the drop-off is well located and highly visible.

   The car park had been designed to accommodate, staff, student and visitor parking. Parking will not be used by parents and students who be instructed to use the drop-off zone.

   The angled parking on one side of the Drop-off zone will need to be managed to ensure little or no movement during the main Kiss and Ride periods; e.g. Senior Staff Parking. This is similar to many other schools we have designed.

   It is in the best interests of the school and the parents and the queuing for Kiss and Ride is managed e.g. with different classes having staggered (10 minute) Pick-up times. This will alleviate the possibility of regular queuing back to Horsley Rd. The school will learn the best routine over time and this cannot be

predetermined.

We do not consider that queuing will regularly occur in Horsley Rd.

3. Kerbside Parking on Horsley Road at the College.

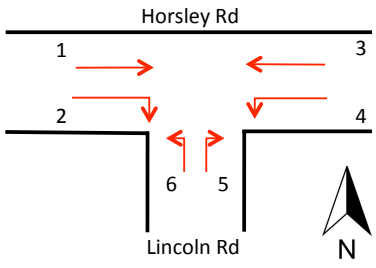
The school is located in a rural setting, with a disconnected local road network. This is unlike suburban locations where the drop off can be part of a journey that continues to other destinations through a grid of local streets. Most if not all drivers arriving at the College will wish to return the way they came and will use the College to make a U-turn.

We do not consider that kerbside parking will occur or become an issue.

Figure 1 Traffic Count At Hosley Rd and Lincoln Rd 2013

TRAFFIC COUNT
HORSLEY RD and LINCOLN Rd HORSLEY PARK
Stapleton Transportation and Planning,
Thursday 30th May 2013

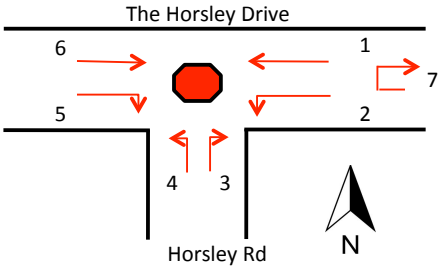
AM Peak 1.15 Minutes 8:15am - 9:15am



	8.00-8.15	8.15-8.30	8.30-8.45	8.45-.9.00	9.00-9.15	Total	8.00-9.00am	8.15-9.15am
1	24	29	29	37	18	137	119	113
2	0	0	0	0	0	0	0	0
3	12	9	7	9	14	51	37	39
4	2	4	4	6	11	27	16	25
5	3	12	8	8	16	47	31	44
6	1	0	0	3	0	4	4	3
						266	207	224

Figure 2 Traffic Count at Horsley Rd Horsely Dr 2013

TRAFFIC COUNT
HORSLEY RD and THE HORSLEY DRIVE HORSLEY PARK
Stapleton Transportation and Planning,
Wednesday 5th June 2013



AM Peak 1.15 Minutes 8:15am - 9:15am

	8.00-8.15	8.15-8.30	8.30-8.45	8.45-.9.00	9.00-9.15	Total	8.00-9.00am	8.15-9.15am
1	2	3	6	5	7	23	16	21
2	11	15	28	33	46	133	87	122
3	22	36	42	60	53	213	160	191
4	2	4	1	2	1	10	9	8
5	0	0	0	2	0	2	2	2
6	3	4	3	7	6	23	17	20
7	3	6	7	6	7	29	22	26
						433	313	390

AM Peak 1 Hour 3:00pm - 4:00pm

	3.00-3.15	3.15-3.30	3.30-3.45	3.45-4.00	Total	3.00-4.00pm
1	2	3	6	5	16	16
2	11	15	28	33	87	87
3	22	36	42	60	160	160
4	2	4	1	2	9	9
5	0	0	0	2	2	2
6	3	4	3	7	17	17
7	3	6	7	6	22	22
					313	313

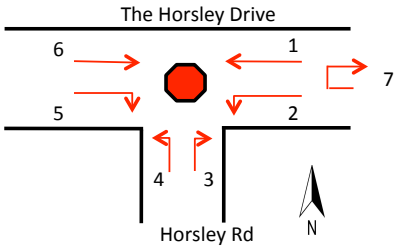
Figure 3 CHANGED TRAFFIC 2006 - 2013			
		Existing AM Peak	
		2013 Count	Original Report 2006
Horsley Road	West of Lincoln Road	192	176
	East of Lincolm Road	262	254
	West of School Entrance	192	176
Lincoln Road	South of Horsley Road	78	84
		724	690

Figure 4 DISTRIBUTION OF TRAFFIC GENERATED TO THE COLLEGE			
	Drop Off AM		Pick Up
	To College	From College	To College
Total Including Buses	414	328	328

Distribution		Journeys in hour		
Scenario A				
East on Horsley Rd	15%	62.1	49.2	49.2
North on Delaware Rd	10%	41.4	32.8	32.8
South on Koala Way	10%	41.4	32.8	32.8
The Horsley Drive	65%	269.1	213.2	213.2
Scenario B				
East on Horsley Rd	15%	62.1	49.2	49.2
North on Delaware Rd	10%	41.4	32.8	32.8
South on Koala Way	25%	103.5	82	82
The Horsley Drive	50%	207	164	164

Figure 5 Traffic Increase at Horsley Dr

TRAFFIC INCREASED THE HORSLEY DRIVE
HORSLEY RD, HORSLEY PARK
Stapleton Transportation and Planning



		Additional Traffic		Total Future Traffic	
Morning 8.15-9.15am		Scenario A	Scenario B	Scenario A	Scenario B
1	21			21	0
2	122	269	207	391	476
3	191	213	164	404	377
4	8			8	0
5	2			2	0
6	20			20	0
7	26			26	0
	390	482	371	872	853

		Additional Traffic		Total Future Traffic	
Afternoon 3.00-4.00pm		Scenario A	Scenario B	Scenario A	Scenario B
1	16			16	0
2	87	213	165	300	378
3	160	269	207	429	476
4	9			9	0
5	2			2	0
6	17			17	0
7	22			22	0
	313	482	372	795	854