

Our Ref: 18173

27 March 2025

WINIM Developments Pty Ltd
Suite 214, 40 Yeo Street
NEUTRAL BAY NSW 2089

Attention: Ry Stephen

Dear Ry,

**RE: WESTMEAD CATHOLIC COMMUNITY EDUCATION CAMPUS
MODIFICATION TO SSD-10383 - CHANGES TO OPENING YEAR STUDENT NUMBERS**

SSD-10383 was approved on 14 February 2022. The approved scheme and the transportation assessment prepared to support it was based upon the following numbers.

- A primary school with capacity for up to 1,680 students, to provide expanded facilities for the existing Mother Teresa Primary School on the site and to replace the existing Sacred Heart Primary School at Ralph Street;
- A Catholic Early Learning Centre (CELC) with capacity for up to 200 children (fit-out within an existing building);
- An Out of School Hours (OOSH) facility (before and after school care);
- A new Parish church; and
- New landscaping.

The approved scheme indicated that the primary school would in the opening year have 660 students and 40 staff and the CELC early learning centre would have 100 students and 15 staff.

It was originally envisioned that the school would open in 2023 growing to full capacity within 10 years of operation.

There have been two modifications approved since the original approval, with the most recently approved modification 2 which sought a number of design and landscape changes, which resulted in a reduction in capacity of the CELC from 200 to 120.

The purpose of this letter is to support an increase of the opening year number from 660 to 840 students with the number of staff increasing from 40 to 50 and an increase from 100 to 120 students at the CELC early learning centre with the staff number increasing from 15 to 25 (as tabulated below). This report supplements the third modification to SSD-10383.

		Approved Student and Staff Numbers at Opening Year	Proposed Student and Staff Numbers at Opening Year
Primary School	Students	660	840
	Staff	40	50
CELC	Students	100	120
	Staff	15	25

However, the ultimate numbers at the end of the project (i.e. the stabilisation year) as captured in the approval would remain the same for the primary school, however the CELC only has capacity now for 120 students at stabilisation.

We have undertaken a review to assess the impact, at the date of opening, that might occur as a result of the proposed changes to the Opening Year student and staff numbers.

Background

Our original traffic report was written for the following development scenario.

- A primary school with capacity for up to 1,680 students, to provide expanded facilities for the existing Mother Teresa Primary School on the site and to replace the existing Sacred Heart Primary School at Ralph Street;
- A Catholic Early Learning Centre (CELC) with capacity for up to 200 children (fit-out within an existing building);
- An Out of School Hours (OOSH) facility (before and after school care);
- A new Parish church; and
- New landscaping.

The approval provides a cap on the opening year primary school student number of 660 and 40 staff and that these primary student numbers would increase to 1680 by the completion year (estimated to be about 10 years after opening).

Modification 2 has since been approved - as stated above, the design changes have meant that the approved max capacity at stabilisation year is 120

To achieve the CSPD pedagogical model which accommodates classrooms in clusters of two classes and two teachers, CSPD is requesting that school will be 840 students and 50 staff rather than the 660 previously considered. Similarly, the Early Learning CELC number would have a capacity of 120 students in opening year which will not be increased. .

The OOSH and Parish Church are not part of the modification so will remain the same as the original proposal for the purposes of this traffic assessment.

The traffic report for the approved scheme quoted the following traffic generation in the opening year from the 660 primary students and 40 staff. It also estimated the traffic generated by 100 CELC students and associated staff.

The estimates are tabulated below but the extracts from the traffic report are contained in Attachment 1 to this letter.

Group	Current	Number of trips during network peaks	
		AM Peak Hour	PM Peak Hour
Primary School	Students	263	298
	Staff	14	2
CELC	Students	30	4
	Staff	0	0

We will therefore look at the traffic model in the opening year to see if increasing the 660 students to 840 students and increasing the CELC to 120 in the opening year makes any noticeable difference.

We note that the local intersection of concern is the Darcy Road – Bridge Rd – Coles Car park (as this was show in the report to operate overcapacity in the opening year of 2023 absent the scheme) so the modelling will be concentrated on that intersection in the opening year of 2023 with the AM peak being the most important peak hour.

Assessment

It is estimated that in opening year, the initial intake of students will result in the number of students increasing from the approved 660 to 840 and the number of staff increase from 40 to 50 and the CELC will increase from 100 to 120 students with 25 staff.

The previous traffic modelling reported the following traffic modelling results with the key intersection results edged red in the table below

Table 8.2: Intersection Performance – AM Period

Intersection	Scenario:	Scenario 0		Scenario 1		Scenario 2	
	Intersection Type	Existing		2023 Background Growth		2023 Background Growth + Dev	
		Average Delay (s)	LOS	Average Delay (s)	LOS	Average Delay (s)	LOS
Darcy Rd – Site Access (Mother Teresa)	Priority (Stop)	9	A	9	A	6	A
Darcy Rd – Institute Rd – Mons Rd (a)	Signalised	69	E	36	C	37	C
Darcy Rd – Site Access (Catherine McAuley)	Priority (Give Way)	4	A	4	A	4	A
Darcy Rd – Site Access (Catherine McAuley) – Westmead Hospital	Signalised	12	A	12	B	19	B
Darcy Rd – Site Access (Proposed Car Park Entry)	Priority (Give Way)	3	A	3	A	3	A
Darcy Rd – UWS – Westmead Hospital	Signalised	22	B	22	B	21	B
Darcy Rd – Hawkesbury Rd	Signalised	35	C	35	C	36	C
Hawkesbury Rd – Railway Pde	Signalised	22	B	20	B	21	B
Hawkesbury Rd – Alexandra Ave	Signalised	49	D	66	E	69	E
Alexandra Ave – Bridge Rd	Priority (Roundabout)	15	B	17	B	17	B
Darcy Rd – Bridge Rd – Coles Car Park	Signalised	73	F	89	F	26	B

Notes:

(a) After the October 2018 traffic surveys were conducted as part of this Project, the intersection of Darcy Rd – Institute Rd – Mons Rd had undergone upgrades. The upgrades included a left turn slip lane on the Darcy Road west approach and installation of a “No Right Turn” restriction on the Darcy Road south-east approach. As a result of these upgrades, amendments were made to the signal phasing arrangement and intersection cycle time. From Neamap aerial imagery, the intersection upgrades were carried out at the end of 2018 into early 2019. Therefore, the base case modelling for the Darcy Road – Mons Road – Institute Road intersection has been carried out based on the geometric layout, signal phasing, and cycle time prior to these upgrades. Signal data has been extracted from SCATS History Files and LX files which have been obtained for the same day which the traffic surveys were undertaken.

The traffic report also explained the reason why, counter-intuitively, traffic got better when the development was added. This is due to certain physical changes taking place when the development occurs (as explained in the traffic report and extracted below).

In the base case (Scenario 0), the intersection operates at LoS F. In Scenario 1, the operation remains at LoS F with an increase in average delay of 16 seconds.

In Scenario 2, the intersection level of service improves to LoS B with an average delay of 26 seconds.

It is noted that in 2023 there would be 100 new CELC children and 240 new primary students on-site, as well as an OOSH facility accommodating for 30% of the primary school population. However, there would also be **improvements at the site as follows:**

- The high school portion of site-generated traffic has been relocated from the existing Mother Teresa site access driveway to the new car park and PU/DO area access that will be located on the eastern site boundary.
- The effects of the GTP have been considered for students across the site (10% mode shift) as well as reduced car trips by staff as a result of reduced on-site parking provisions (refer to Section 6.1.5 for details).

Compared with Scenario 1, there would be a reduction of 8% of the total vehicle movements in Scenario 2. **Compared with Scenario 0 (existing conditions), there would be a reduction of 1% of the total vehicle movements in Scenario 2.**

As a result, there would be operational improvements to this intersection in Scenario 2.

The number of traffic movements from the increased student numbers were calculated by factoring the traffic generated by 660 students and 40 staff up to 840 students and 50 staff assuming the same travel patterns. The CELC traffic for 200 students was provided in the traffic report and this number will now be 120 and that number will not increase between opening year and stabilisation year. This lower CELC number is reflected in the table below.

		Approved 2023		Proposed Opening Year	
		Number of trips during network peaks		Number of trips during network peaks	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Primary School	Students	263	298	335	379
	Staff	14	2	18	3
CELC	Students	30	4	36	5
	Staff	0	0	0	0

* CELC staff generally arrive outside the peak periods

This will increase the traffic flow by 82 in the AM peak and 83 in the PM peak.

We then added this traffic onto the Scenario 2 traffic model, and this results in retention of a LoS of B with an increase in delay of 1 second from 26 seconds to 27 seconds. This is a negligible increase.

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles	Distance m			km/h	
South: Bridge Rd														
1	L2	146	2.7	146	2.7	0.477	54.1	LOS D	5.8	41.5	0.90	0.79	0.90	22.1
2	T1	16	6.3	16	6.3	0.477	55.0	LOS D	5.8	41.5	0.90	0.79	0.90	19.4
3	R2	90	8.9	90	8.9	0.477	67.6	LOS E	3.6	27.3	0.97	0.79	0.97	16.4
Approach		252	5.2	252	5.2	0.477	59.0	LOS E	5.8	41.5	0.93	0.79	0.93	19.8
East: Darcy Rd - E														
4	L2	227	3.5	227	3.5	0.405	27.8	LOS B	9.5	68.8	0.67	0.70	0.67	22.7
5	T1	506	3.8	506	3.8	0.405	20.2	LOS B	9.5	68.8	0.62	0.58	0.62	30.4
6	R2	21	0.0	21	0.0	0.056	20.7	LOS B	0.3	2.4	0.67	0.68	0.67	21.8
Approach		754	3.6	754	3.6	0.405	22.5	LOS B	9.5	68.8	0.64	0.62	0.64	27.7
North: Coles Car Park Access														
7	L2	13	7.7	13	7.7	0.025	36.4	LOS C	0.4	2.8	0.73	0.52	0.73	14.4
8	T1	13	0.0	13	0.0	0.190	60.6	LOS E	1.5	11.0	0.94	0.70	0.94	12.1
9	R2	27	3.7	27	3.7	0.190	60.6	LOS E	1.5	11.0	0.94	0.70	0.94	14.5
Approach		53	3.8	53	3.8	0.190	54.7	LOS D	1.5	11.0	0.89	0.66	0.89	13.9
West: Darcy Rd - W														
10	L2	29	0.0	29	0.0	0.738	31.0	LOS C	23.9	170.5	0.83	0.77	0.83	18.7
11	T1	1104	2.2	1104	2.2	0.738	24.1	LOS B	23.9	170.5	0.76	0.69	0.76	16.5
12	R2	190	1.1	190	1.1	0.365	15.8	LOS B	2.5	17.9	0.63	0.73	0.63	21.5
Approach		1323	2.0	1323	2.0	0.738	23.1	LOS B	23.9	170.5	0.74	0.70	0.74	17.2
All Vehicles		2382	2.9	2382	2.9	0.738	27.4	LOS B	23.9	170.5	0.73	0.68	0.73	21.0

In summary, the increase in staff and student numbers contemplated by this modification, would result in the traffic conditions remaining generally the same compared with the approved scheme. The proposed increase still remains within the total number approved for the completion year, however the increase in numbers needs to be accelerated based on additional initial demand.

The necessary traffic strategies /mitigations will still be implemented in line with the approval.

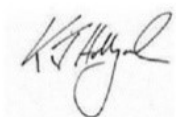
Summary and Conclusion

This report confirms that the increase in initial student load in the opening year from the capped 660 students with 40 staff to 840 students with 50 staff and the increase in CELC from 100 to 120 with staff increases from 15 to 25 staff, will have a negligible impact on the performance of the road network in the opening year compared to the approved scheme. Consequently, no additional mitigation measures are required.

If there are any additional parking demands from the modest increase in students, this will have no effect as all of the car parking provision for the approval are conditioned to be delivered prior to occupation. Consequently, parking will remain unaffected.

Should you have any queries regarding the above or require further information, please do not hesitate to contact the undersigned on 8437 7800.

Yours sincerely,



Ken Hollyoak

Eur Ing BSc (Hons) MSc (Dist) FIEAust CPEng NER APEC Engineer IntPE (Aus) RPEQ FAITPM MICE FICHT
Director

Encl. Attachment One – Extract from Traffic Report

Attachment One

Extract from Traffic Report

Table 7.7: Primary School Students Vehicle Trip Generation

Input	Value	No. of Trips During Road Network Peaks		No. of Trips Outside of Road Network Peaks	
		AM Peak Hour Trip rate: 75%	PM Peak Hour Trip rate: 85%	Before AM Peak	After PM Peak
Car Occupancy Rate (students per car)	2.12	Refer to Section 5.2.			
Car Mode Share	80%	90% (current mode share, Section 5.1) reduced by 10% mode shift			
2023 Population	660	Refer to Table 4.1.			
2023 Population not attending OOSH (70%)	462	Equals 70% of 660 students.			
No. of Students travelling by Car	370	Equals 80% of 462 students.			
No. of Cars in 2023	175	Equals no. of students travelling by car divided by car occupancy rate.			
No. of Trips in 2023	350	263	298	87	52
2033 Population	1680	Refer to Table 4.1			
2033 Population not attending OOSH (70%)	1176	Equals 70% of 1680 students.			
No. of Students travelling by Car	941	Equals 80% of 1176 students.			
No. of Cars in 2033	444	Equals no. of students travelling by car divided by car occupancy rate.			
No. of Trips in 2033	888	666	755	222	133

Table 7.8: Primary School Staff Vehicle Trip Generation

Input	Value	No. of Trips During Road Network Peaks		No. of Trips Outside of Road Network Peaks	
		AM Peak Hour Trip rate: 75%	PM Peak Hour Trip rate: 10%	Before AM Peak	After PM Peak
Car Occupancy Rate (staff per car)	1.0	Refer to Section 5.2.			
2023 Population	40	Refer to Table 4.1.			
2023 Parking Provision	19	Provided at a rate of 1 space per 2 staff (refer to Section 6.1.5).			
No. of Trips in 2023	19 (a)	14	2	5	17
2033 Population	100	Refer to Table 4.1.			
2033 Parking Provision	48	Provided at a rate of 1 space per 2 staff (refer to Section 6.1.5).			
No. of Trips in 2033	48 (a)	36	5	12	43

Notes:

(a) Staff who drive to the site generate one inbound trip on the way to the site and one outbound when leaving the site.

Table 7.1: CELC Children Vehicle Trip Generation

Input	Value	No. of Trips During Road Network Peaks		No. of Trips Outside of Road Network Peaks	
		AM Peak Hour Trip rate: 0.30 trips/ licensed place/ hr	PM Peak Hour Trip rate: 0.04 trips/ licensed place/ hr	Before AM Peak	After PM Peak
2023 CELC Population	100	Refer to Table 4.1.			
No. of Trips in 2023	-	30	4	70	96
2033 CELC Population	200	Refer to Table 4.1.			
No. of Trips in 2033	-	60	8	140	192

Table 7.2: CELC Staff Vehicle Trip Generation

Input	Value	No. of Trips During Road Network Peaks		No. of Trips Outside of Road Network Peaks	
		AM Peak Hour Trip rate: 0 trips/hr	PM Peak Hour Trip rate: 0 trips/hr	Before AM Peak	After PM Peak
Car Occupancy Rate (staff per car)	1.0	Refer to Section 5.2.			
2023 Population	15	Refer to Table 4.1.			
2023 Parking Provision	7	Provided at a rate of 1 space per 2 staff (refer to Section 6.1.5).			
No. of Trips in 2023	7 (a)	0	0	7	7
2033 Parking Provision	10	Refer to Table 4.1.			
2033 Population	12	Provided at a rate of 1 space per 2 staff (refer to Section 6.1.5).			
No. of Trips in 2023	12 (a)	0	0	12	12

Notes:

(a) Staff who drive to the site generate one inbound trip on the way to the site and one outbound when leaving the site.