Our Ref: 20337

17 May 2022

Sydney Catholic Schools
c/o Carmichael Tomkins Property Group Pty Ltd
Suite 14.04, Aurora Place
88 Phillip Street
Sydney, NSW, 2000

Attention: Mr Brodie McHutchison

Dear Brodie,

RE: MARIST CATHOLIC COLLEGE NORTH SHORE
RESPONSE TO DPIE REQUIREMENTS DATED 20 DECEMBER 2021

Background

- A State Significant Development Application (SSDA) was submitted to the Department of Planning, Industry and Environment (DPIE), for the Marist Catholic College North Shore Masterplan.
- Following public consultation of the proposed development and public and authority submissions, The Transport Planning Partnership prepared a response these submissions in November 2021.
- Following a second public exhibition in December 2021 and DPIE obtaining a peer review of TTPP's response, the DPIE requested additional traffic and parking information.

The attachment responds to each of the traffic and parking related matters one by one in **Attachment 1.**

The Transport Planning Partnership
Suite 402, 22 Atchison Street
ST LEONARDS NSW 2065

We trust the above is to your satisfaction. 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
Director

Attachment One

Responses to RFIs

Table 1: Responses to Issues Raised

Item	Issue	Response / Action	TIA Reference
General Comments			
1.1	An analysis of existing queueing, safety and congestion issues at the drop-off/pick-up entry and exit and on surrounding roads should be undertaken to indicate any future impacts.	Observations of the existing pick-up/ drop-off arrangements are described in the traffic report in greater detail.	See Section 6.5.1
1.2	Survey of at least half of the Marist College North Shore Students should justify the travel mode splits and proposed targets.	A second questionnaire survey of the North Shore Students has been undertaken, with a response rate of 86%. The travel mode splits and targets have been modified in the traffic report accordingly.	See Section 3
1.3	Brief details about the proposed drop-off/pick-up areas and associated operational management plan to consider the potential for vehicle queues entering the car parks spilling back onto surrounding roads as well as drivers in the queues stopping on the circulation roads/parking aisles/local roads to pick up and drop off.	The proposed development substantially improves the existing drop off/ pick up arrangements. The proposed pick-up/ drop-off arrangements are detailed in the traffic report in greater detail.	See Section 6.5.2 and Section 6.5.3
Aimsun Models			
2.1	Evidence of using signal offsets from the relevant LX file	LX files were obtained from Transport for NSW and used to set the offsets in the models.	See updated model development report Section 2,2.4
2.2	Modelling of intersections as Actuated rather than Fixed signals.	All traffic signals in the model have been converted to Actuated signal logic.	See updated model development report Section 3.10
2.3	Consideration of delays associated with pedestrian crossings in coding the traffic lights, including on approaches where there is no pedestrian protection arrow.	Pedestrian protection and pedestrian crossings have been added to all signalised intersections.	See updated model development report Section 3.11
2.4	Correct and realistic coding of southbound bus movements/merging at the Pacific Highway/Miller Street.	Lane turn movements have been corrected. Bus operations were observed on site. It was found that the number of buses in the timetable exceeded the number of buses observed. Therefore, some school buses were removed from the timetable and bus turning movements calibrated to the volumes from the counts. After doing this, the buses appeared to replicate what was observed on site.	See updated model development report Section 3.11

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2.5	Redundancy of the Static Assignment and Departure OD adjustment given the linear nature of the network (with no alternative routes) and presence of traffic count data.	The static assignment and the departure adjustment are not redundant and were used appropriately in the development of the model. Correspondence with Aimsun confirms that the use of departure adjustment in corridor models is appropriate for corridor models.	See updated model development report Appendix B
2.6	Accurate bus dwell times and schedules to amend the current results which show unrealistic queues on Miller Street during the AM and PM peaks, as well as blockage on Berry Street during the AM peak.	Bus dwell times were observed on-site and found to be reasonable for the location. However, see also point 2.4	See updated model development report Section 3.11
2.7	Consideration of the 2036 northbound AM peak travel times after Ridge Street, which would increase sharply despite the proposed removal of on-street parking.	Models have been further refined and re-run. Further commentary has been added to the report.	See Section 7.6.4 of the updated report
Sidra Models			
3.1	Minor deficiencies with Lane Geometries, Lane Movements, Priorities and Signal Phasing.	Lanes and priorities have been corrected in the model.	See Section 8.2
3.2	Use of the incorrect Pedestrian Walking Speed (Average).	Walk speed has been changed to 1.2 m/s	NA
3.3	Evidence of using signal offset times from the relevant LX file.	LX files have been obtained from Transport for NSW and used to adjust the offsets.	See Section 8.2
3.4	Showing the Percentile value, not the Average value in the network queue outputs.	Average queues were used to calibrate the models as per Sidra recommendations. Setting have been set back to 95th percentile for the model results.	NA
Drop-off/ Pickup area and Car /bicycle parking			
4.1	Clarification of the design and use of the pick-up/drop-off (PUDO) zone for kindergarten to year 1 students on the north-south access, including: ▪ updated architectural / landscape plans to show the surface PUDO zone. ▪ confirmation of the number of PUDO spaces and vehicle queuing capacity as well as the ability of vehicles to pass in the event the PUDO spaces are occupied.	The proposed pick-up/ drop-off arrangements are described in the traffic report in greater detail.	See Section 6.5

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4.2	Clarification of the adequacy of PUDO facilities including: ▪ whether the existing PUDO facility is capable of accommodating existing ▪ peak demand, whether it results in queuing onto Ridge Street and if so the ▪ extent of queuing. ▪ an assessment of the proposed PUDO spaces (12 spaces for Years 2-12, ▪ three spaces for Kinder to Year 1 and nine spaces for childcare) to demonstrate that this is sufficient to meet demand during peak periods. ▪ confirm the predicted maximum vehicle queue length for each proposed ▪ PUDO during peak periods. ▪ confirm whether the PUDO times for Years 2-12 and the childcare overlap, ▪ and whether this cumulative demand results in any adverse queuing.	The proposed pick-up/ drop-off arrangements are considered adequate. The proposed pick-up/ drop-off arrangements are described in the report in greater detail.	See Section 6.5
4.3	Clarification of the proposed allocation of parking spaces, in particular: ▪ at the basement level of the Carlow Street building, noting the RtS states there are 50 staff parking, 9 childcare, 12 PUDO. However, the architectural drawings indicate 48 staff parking, 10 childcare and 13 Years 2-12 PUDO. ▪ the use and allocation of the Ron Dyer spaces. ▪ the use of the Carlow Street building PUDO and childcare spaces outside of PUDO times.	The parking provision calculation in the TIA has been modified to be consistent with the architectural plans.	See Section 5.1.6
4.4	Confirmation of the location and amount of existing bicycle parking spaces on the site and their designation (staff/students) to allow a comparison with the proposed bicycle parking.	The existing site does not include bicycle parking provision.	See Section 5.3