

Ms Tahlia Alexander
A/Team Leader, School Infrastructure Assessments
Locked Bag 5022
Parramatta NSW 2124

10 May 2022

Dear Ms Alexander

New High School in Jerrabomberra (SSD-24461956)
Response to request for additional information

I refer to your letter dated 22 April 2022 requesting additional information in relation to the New High School in Jerrabomberra, generally in response to issues raised by Queanbeyan-Palerang Regional Council (Council).

I also refer to the letter from the Government Architect NSW (GANSW) dated 22 April 2022 raising a number of outstanding issues.

Please find below a response to the issues raised.

- **Parking facilities (on street parking)**

DPE comment:

Queanbeyan-Palerang Regional Council's (Council) comments (Attachment 2) on the Response Submissions Report has removed all grounds for its objection except for concerns regarding on street parking. You are requested to address Section 4 of Council's comments and consult with Council as required to satisfactorily resolve this outstanding issue.

Proponent response:

The proponent discussed on-street parking with Council at the Transport Working Group (TWG) meeting on 5 May 2022. At the meeting Council suggested the option of angled parking for students along the northern side of the stub road.

The project team subsequently analysed the angled parking option but found it to be undesirable because it would reduce the peak hour operating efficiency of the adjacent student 'kiss and drop' zone and also introduce safety concerns related to increased pedestrian activity on the stub road and reverse movements carried out by inexperienced drivers.

Notwithstanding, there are significant on-street parking opportunities on roads within 400m of the high school site (e.g. Bayside Circuit), and there is off-street parking available at David Madew Regional Park. There are active transport paths from between these locations and the school entry. Also, peak activity at the park (i.e., evening and weekends) is unlikely to coincide with peak activity at the high school.

Refer to GHD's letter at **Attachment A** for further detail. This additional information was provided to Council following the TWG meeting.

- **Utilities**

DPE comment:

Address Section 2 of Council's comments regarding potable water supply and sewer servicing.

Proponent response:

For this item Council states that "The proponent has made no reference to hydraulic design for potable water supply and sewer servicing" and has recommended "That the consent authority impose conditions requiring the preparation of a hydraulic design plan providing details of the required sizing for all water, sewer and stormwater services required for the site".

A hydraulic services site plan has already been provided—see NDY's response at Appendix 9 of the Submissions Report. The plan shows the location and sizing for the water and sewer services for the site. The new cold water and sanitary drainage provisions to the school connect to the authority mains contained within northern stub road.

DoE accepts DPE's standard conditions regarding stormwater management and utilities and services.

- **Drop-off/pick-up**

DPE comment:

As detailed in Section 5 of Council's comments, provide further analysis for the drop-off/pick-up PM peak period.

Proponent response:

We note that Council has removed its objection on this item. Council has made a note about sensitivity analysis for the PM peak but has not requested any further analysis.

As discussed in GHD's letter at **Attachment A**, the analysis performed indicates that 7 kiss and drop spaces plus the available additional queuing space for 38 vehicles are sufficient to accommodate the expected demand and avoid the risk of queuing vehicles on Environa Drive, thereby not affecting the through-travel movement of vehicles, including emergency services.

- **Masterplan & Landscape**

GANSW comment:

The Response to Submissions and SDRP (30.03.2022, Issue A), responds to recommendation 7c of the SDRP 02 advice (dated 15 July 2021), and includes options testing. Option 3 (page 17) which includes rest stops along a ramped route providing connection to David Madew Oval is preferred.

Proponent response:

As noted in TKD's response at **Attachment B**, Option 3 has been adopted in the revised landscape and architectural drawings submitted with the Submissions Report.

- **Architecture**

GANSW comment:

The updated drawings provide some articulation of the building volume. Additional louvre bays will assist in providing opportunities for ventilation. Additional opportunities to increase natural ventilation, (SDRP 02 advice 12a) are as follows:

a. the proposed skylights (refer Roof Plan, AR DA HS-2003 Rev C) will not be as successful in promoting airflow as the lanterns provided previously (refer Roof Plan, AR DA HS-2003 Rev B). It is recommended that the roof lanterns be reinstated.

b. Additional opportunities to promote cross-ventilation are to be pursued. Consider adding northern openings to the learning spaces adjoining the student entry from Envirova Drive (to the north) and to learning spaces adjoining the central open COLA/ covered walkway.

Proponent response:

It is proposed to retain the skylights rather than revert to the lanterns. The lanterns would not allow for an optimal user interface, and the school provides for EFSG-compliant ventilation even without the lanterns.

Regarding additional opportunities for cross-ventilation, we note that louvred openings are incorporated into the highlight and sidelights to the doors at the northern southern end of the two learning hubs in Block A, at both levels of the building. The extent of the openings exceeds relevant NCC requirements and provides a suitable balance between airflow and solid wall (which is necessary for supporting items such as white boards, pin boards, etc.).

Refer to TKD's response at **Attachment B** for further detail, including an elevation extract showing the location of the louvres.

If you have any further queries, please do not hesitate to contact the undersigned or Sarah Kelly on 0419 125 237.

Yours sincerely,



Lachlan MacDonald
Senior Project Director
School Infrastructure NSW

Attachments –
Attachment A: GHD letter
Attachment B: TKD letter



Attachment A – GHD letter



NSW Department of Education

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Our ref: 12548316

9 May 2022

Hindmarsh Construction Australia Pty Ltd
Stefan Szyczew
Level 27, 100 Miller Street
North Sydney, NSW, 2060

RE: New High School in Jerrabomberra SSD RFI

Dear Stefan,

Reference is made to the response submissions from the Department of Planning, Industry and Environment (DPIE), - Queanbeyan-Palerang Regional Council and Transport for NSW (TfNSW) with respect to State Significant Development Application (SSDA) submission for the New High School in Jerrabomberra (Reference SSD – 24461956).

For any queries regarding this correspondence please contact the undersigned.

A copy of the latest masterplan for the new high school in Jerrabomberra is included with this letter.

Regards

A handwritten signature in grey ink that reads 'Mark Lucas'.

Mark Lucas
Technical Director – Transport Planning

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Table 1 DPE Key Issues

DPE Submissions		
No.	DPE Key Issues Letter	Response
1	Parking Facilities – On Street Queanbeyan-Palerang Regional Council's (Council) comments (Attachment 2) on the Response Submissions Report has removed all grounds for its objection except for concerns regarding on street parking. You are requested to address Section 4 of Council's comments and consult with Council as required to satisfactorily resolve this outstanding issue.	The current master plan for the new high school in Jerrabomberra does not propose to provide parking spaces for students, which is consistent with other nearby high schools, including Karbar High School and Queanbeyan High School. With respect to the potential provision of angled student parking on the northern side of the stub road, the following is noted: ☐ The provision of parking bays will increase the peak hour activity on the stub road, reducing the peak hour operating efficiency of the kiss n drop and increasing delays to vehicles accessing/egressing the school. ☐ Students accessing/egressing parking bays will interrupt the flow of vehicles in peak periods circulating through the cul-de-sac to utilise the designated kiss n drop zone. ☐ Students accessing/egressing their vehicles are unlikely to utilise the designated crossing point at the intersection of the stub road and Environa Drive. They are more likely to walk directly across the stub road at the point they parked their car, resulting in additional safety issues. ☐ Student drivers, who are relatively inexperienced, will need to reverse out of the bays, with associated safety issues. These manoeuvres will occur during peak periods of school activity with associated risks of hitting a pedestrian or other vehicles undertaking pick-up/drop-off activity. • Once they exit the bays, students would need to 'join the queue' and manoeuvre around the cul-de-sac before exiting. The impacts described above will be expected to occur, regardless of the angle of the parking bays. In summary, it is not recommended that student parking be provided on the stub road.

		 Potential student parking Some students may choose to park on the local streets surrounding the school (as parking is currently permitted on these streets). Based on the analysis undertaken, this is expected to result in little to no impact on the local network given that the local streets have low traffic volumes and they are sufficiently wide enough to accommodate the relatively low volume of on street parking that is likely to occur as a result of the school. There are significant parking on-street parking opportunities on roads within 400 metres of the high school site including, Bayside Circuit and there is off-street parking available at Dave Madew Regional Park. It is noted that there are active transport paths from between these locations and the school entry. Further peak activity at Dave Madew Regional Park (expected in the evening and weekends) is unlikely to coincide with peak activity of the high school.
3	Drop off/pick-up. As detailed in Section 5 of Council's comments, provide further analysis for the drop-off/pick-up PM peak period.	Seven indented spaces (layby) will be provided in the kiss and drop zone, plus one dedicated space for students with special needs. The facility design that was provided to GHD to review is considered to provide sufficient capacity/queuing space and students will be dropped off next to the school, providing a good outcome. At a practical level, it is difficult to manage more than seven kiss n drop bays at once. Further, No Parking signage will be implemented to encourage vehicle turnover . If parents are observed to layover for long periods in the afternoon, they should be

advised that it is not permitted (via the available school communication channels), with a reminder of the risk of infringement by NSW Police for disobeying the parking restrictions.



Kiss and drop queue and stub road width

Prior to accessing the seven kiss and drop bays, vehicles are required to traverse the northern side of the stub road and the turning head, a distance of approximately 185 m. Assuming six metres per vehicle (accounting for the gaps between vehicles), this area can accommodate approximately 30 additional vehicles. Additionally, there is a distance between the kiss and drop zone and Envirova Drive of approximately 50 m which could accommodate approximately eight additional vehicles (45 total).

Assuming that the school peak will occur over a 15-minute period and conservatively it takes approximately 60 seconds for a student to embark or disembark a vehicle, each space would turn over approximately 15 times. Therefore, the seven spaces will accommodate at least 105 vehicles in the peak 15 minutes of school activity.

It is noted that the assumption of 60 seconds for embarkation/ disembarkation is very conservative. The duration is likely to be in the order of 10 – 30 seconds in most instances. Accordingly, the kiss and drop facilities are expected to be able to accommodate significantly more than 105 vehicles in peak periods.

The analysis performed indicates that seven kiss and drop spaces plus the available additional queuing space for 38 vehicles are considered sufficient to accommodate the expected demand and avoid the risk of queuing vehicles on Envirova Drive, thereby not affecting the through travel movement of vehicles (including emergency services). Furthermore, during the initial phase of school operations, there will be traffic management in place to educate parents to establish appropriate behaviours. Assuming in a PM peak that as a worst case, pick-up/drop-off parking space turns

	over every 90 seconds, in a 15 minute period, then • The seven designated kiss n drop spaces could accommodate 70 vehicles • The overall 45 spaces available within the stub road could accommodate 450 vehicles. At approximately 8.5 m wide, the north/stub road is sufficiently wide enough to support queued vehicles for the pick-up and drop-off and traffic that is driving through the north/stub road to access the car-park such as teachers and emergency vehicles. At approximately 8.5 m wide, the north/stub road is sufficiently wide enough to support queued vehicles for the pick-up and drop-off and traffic that is driving through the north/stub road to access the car-park such as teachers and emergency vehicles. It is noted that in their letter of 19th April 2022 to the Department of Planning Industry and Environment (Ref: PR.2021.1044), Queanbeyan-Palerang Regional Council, specified “objections on these grounds removed” with respect to the layout and operation of the kiss n drop facility on the stub road.
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Attachment B – TKD letter



NSW Department of Education

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MEMORANDUM

PROJECT: MONARO CLUSTER - JERRABOMBERRA HIGH SCHOOL
JOB NO.: 200095



Date: 06 May 2022
To: Principal Planner
NSW Department of Education
Attention: Sarah Kelly
Tel:
Email: sarah.kelly97@det.nsw.edu.au

SUBJECT

Sarah,

We refer to the RTS letter from the Government Architect of NSW dated 22 April 2022. TKD Architects response to items 1 and 2 is as followings:

RTS Comment:

Masterplan & Landscape

1. *The Response to Submissions and SDRP (30.03.2022, Issue A), responds to recommendation 7c of the SDRP 02 advice (dated 15 July 2021), and includes options testing. Option 3 (page 17) which includes rest stops along a ramped route providing connection to David Madew Oval is preferred.*

TKD Architects Response:

Option 3 has been adopted in the revised design and is included on the updated Landscape and Architectural drawings.

RTS Comment:

Architecture

2. *The updated drawings provide some articulation of the building volume. Additional louvre bays will assist in providing opportunities for ventilation. Additional opportunities to increase natural ventilation, (SDRP 02 advice 12a) are as follows:*
 - a. *The proposed skylights (refer Roof Plan, AR DA HS-2003 Rev C) will not be as successful in promoting airflow as the lanterns provided previously (refer Roof Plan, AR DA HS-2003 Rev B). It is recommended that the roof lanterns be reinstated.*

The High School at Jerrabomberra has been designed with generous, operable, louvred windows and sliding glazed doors to the perimeter walls for natural ventilation of the learning Hub spaces. The natural ventilation provided by these openings exceeds the requirements of Part F Clauses 4.5 to 4.7 of the National Construction Code. The design for the Learning Hubs in Block A is based model layouts for the design of NSW Schools developed by the NSW Department of Education which is based the Departments research for the optimum contemporary learning environment and includes consideration of cross ventilation. The design for the Hubs also complies with the requirements of the Departments, Educational Facilities Standards and Guidelines (EFSG) which has benchmark standards for the natural ventilation of learning environments in for both Primary and Secondary Schools in NSW.

MEMORANDUM

The roof lanterns are therefore not required to satisfy the ventilation requirements for the design or the functioning of the school. High level remotely operated openings would also not allow for optimum user interface within a school environment and the equipment associated with the electronic automation would be a maintenance risk in a location which is difficult to access.

RTS Comment:

- b. Additional opportunities to promote cross-ventilation are to be pursued. Consider adding northern openings to the learning spaces adjoining the student entry from Enviroa Drive (to the north) and to learning spaces adjoining the central open COLA/ covered walkway.*

TKD Architects Response:

Louvred openings have been incorporated in the highlight and sidelights to the doors at the northern and southern end of the two learning hubs in Block A, at both levels of the building. During normal operating hours the doors would also be fixed open adding to the area of opening for natural ventilation. Outside air is drawn from the open COLAs between the Hubs facilitating cross ventilation to the Learning Commons and throughout the learning Hub. As described in our response to item 2a, the cross ventilation of the Learning Hubs is provided through wide sliding glazed partitions to the external walls at the ground level and independently operated high level and lower level louvred external openings at the level above ground. The concept of the Hubs is that they are a contemporary learning environment and a departure from the traditional 'cellular' classroom. The Hubs function as a series of flexible connected spaces fostering collaboration between students and staff. Generous operable partitions and openings incorporated within the internal partitions provide that connectivity and promote cross ventilation throughout the hub. Ceiling fans supplement the cross ventilation provided by the openings and a 'traffic light' operating system for the mixed mode mechanical system allows for optimum user control over their environment without the reliance on air conditioning.

The diagram below illustrates the cross ventilation strategy and the location of openings.

The extent of openings in both external walls and internal walls of the learning spaces is balanced with the needs for cross ventilation and the key need for components of solid wall that are necessary to provide support for items such as, white boards, pinboards, audio visual equipment and storage which are also quantified by the EFSG standards and are essential for the learning activities.

Additional openings are therefore not necessary to satisfy the ventilation requirements for the design and if provided would reduce the solid wall extent that is needed for the support of the teaching and learning functions.

In summary, the cross ventilation provided by the openings incorporated in the updated drawings exceeds the requirements of Part F Clauses 4.5 to 4.7 of the National Construction Code. The design for the Block A hubs is based model layouts for the design of NSW Schools developed by the NSW Department of Education and they comply with the Departments, EFSG which provides benchmark standards for the natural ventilation of learning environments in for both Primary and Secondary Schools in NSW. Additional ventilation openings or roof lantern openings are not necessary for the natural ventilation of the learning spaces.



MEMORANDUM

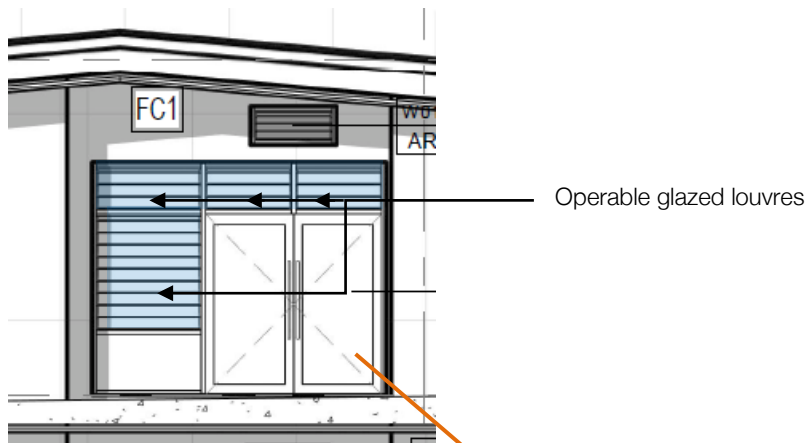


Figure 1 – Louvred openings to door sidelights at the entries to the Learning Commons

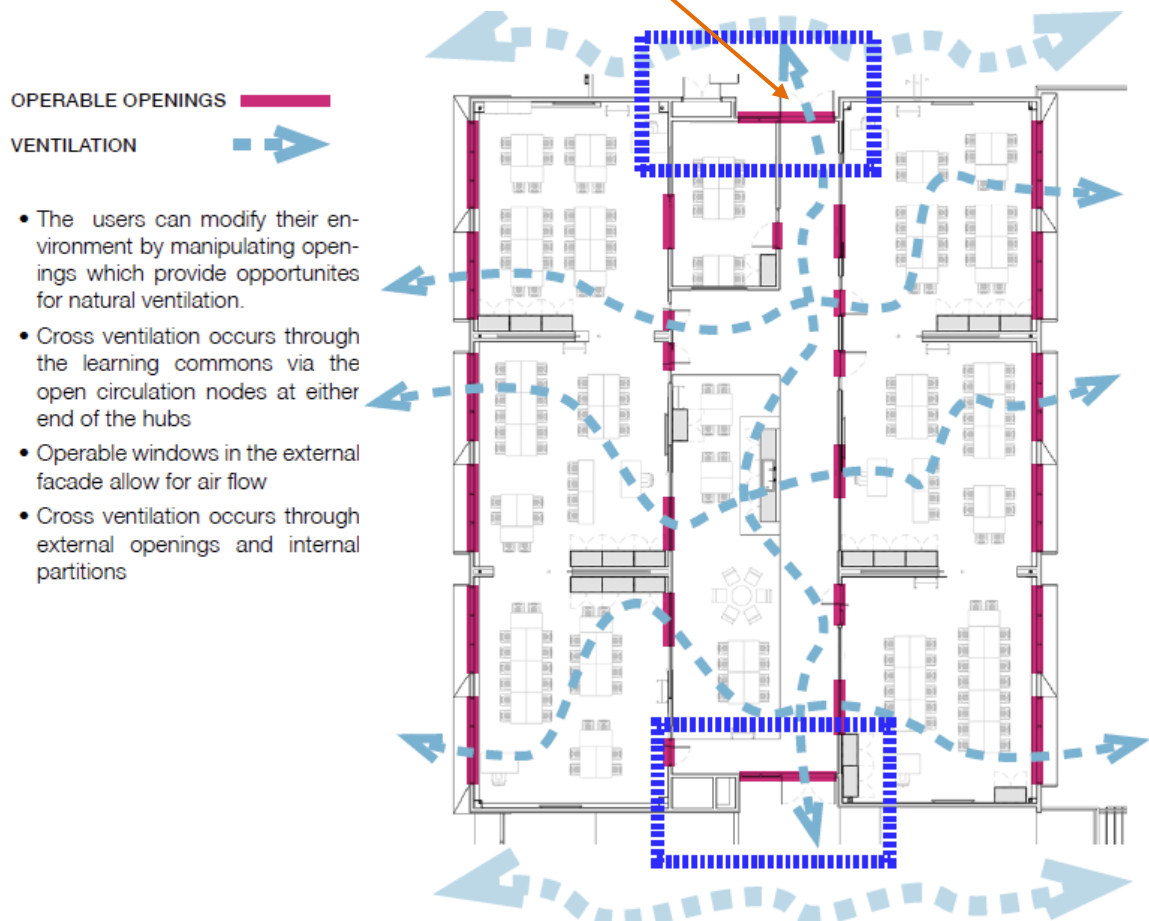


Figure 2 – Cross ventilation strategy of the learning Hubs.



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TANNER KIBBLE DENTON ARCHITECTS PTY LTD



Robert Denton

Principal, Director

NSW Registration No. 5782 / 2260(ACT)

