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4 June 2025

Hamish McTaggart
Development Coordinator
Muswellbrook Shire Council
PO Box 122
MUSWELLBROOK NSW 2333

Dear Hamish,

DA 2024/60 (PAN-459083) Request for Information #2

Construction of a new K-12 School, 72 – 74 Maitland Street, Muswellbrook

This letter has been prepared by EPM Projects on behalf of Pacific Brook Christian School Ltd (PBCS / the Applicant) in relation to Development Application (DA) DA2024/60 for the establishment of a new K -12 school at 72 – 74 Maitland Street, Muswellbrook (the site). This letter provides a response to the following requests for information (RFI):

- NSW State Emergency Service (SES) referral letter dated 20 February 2025
- Transport for NSW (TfNSW) RFI letter dated 10 March 2025
- Hunter and Central Coast Regional Planning Panel (HCC RPP) Briefing on 18 March 2025

This letter is referenced herein as RFI2, as it is the second RFI response to Council following the EPM Project letter dated 10 February 2025 (RFI1) which provided responses to matters raised by Council, TfNSW, State Emergency Services and the HCC RPP. Amended landscape plans were issued to Council via the NSW Planning Portal on 28 March 2025.

In addition to the briefing meeting with the HCC RPP on 18 March, a meeting to discuss flooding and traffic matters was held with Muswellbrook Shire Council (Council) on 2 April 2025.

1. Environmental Planning and Assessment Regulation 2021

As required under section 37 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation), the following documents have been included as part of this RFI response letter.

Table 1 New and amended documentation

Drawing #	Drawing Name	Revision #	Date	New or Amended
Architectural Plans prepared by NBRS Architecture				
DA14	Stage 1 Site Plan	11	02/06/2025	Amended
DA24	Median Fence Diagram	4	03/06/2025	New
Other documentation				
Flood Emergency Response Plan letter in response to HCC RPP (Reference: LT2583.002) prepared by Torrent Consulting dated 3 June 2025				New

Table 1 New and amended documentation				
Drawing #	Drawing Name	Revision #	Date	New or Amended
Flood Emergency Response Plan (Reference R.T2583.001.04) prepared by Torrent Consulting dated 3 June 2025				Amended
Traffic response letter prepared by ptc dated 2 June 2025				New
Pacific Brook Christian School Operational Management Plan dated 3 June 2025				Amended

The following amendments have been made to the proposed development:

- Extension of the Transport Type 5 Barrier fencing within the Maitland Street median from the Thompson Street intersection to the Rutherford Road intersection. It is proposed to set the median fencing approximately 0.5m from the south-western edge of the median.

2. Hunter & Central Coast Regional Planning Panel

On 18 March 2025, the applicant and its consultant team attended a briefing meeting with the HCC RPP to discuss the amendments to the DA and flooding matters. The following provides a response to each of the matters raised by the HCC RPP (which are identified in blue fill).

The Panel need to factually understand the flood impacts and scenarios, hazard categorisation and how the proposal will deal with these. This is particularly important and sensitive given this is a new school and not an existing facility, noting the Panel will not give any weight to arrangements for other existing schools in the locality.

A Flood Impact Assessment and Flood Emergency Response Plan (FERP) have been prepared by Torrent Consulting. These are supported by a flood model that considers the flood impacts and hazard categorisation of the site in the following scenarios:

- 1% Annual Exceedance Probability (AEP) Event
- 0.5% AEP Event
- 0.2% AEP Event
- Probable Maximum Flood (PMF) event.

An extract of the design flood extents for the site is provided at **Figure 1**.

Torrent Consulting has also prepared a Panel Response Letter which provides a more summarised response to the matters raised by the HCC RPP. Key observations include:

- Only the lower portion of the site (northern most part of the site) is inundated in a 1% AEP (or 1 in 100-year) flood event.
- The school building area is only subject to minor inundation at the low hazard (H1) classification up to the 0.2% AEP magnitude, or a 1 in 500-year event, providing safety for people, vehicles and buildings.
- The new buildings have a minimum finished floor level of RL 149.00 which is elevated above the ground level preventing the school buildings from being inundated and providing design flood immunity for up to approximately 0.01% AEP (which is equivalent to a 1 in 10,000 year event).
- The PMF event provides for extensive inundation of the site and surrounds at a high hazard (H5-H6) classification. The PMF is approximately equivalent to a 1:10,000,000-year flood event.

Torrent notes for the HCC RPP that significant lead warning time will be available from official BoM forecasts and warnings, and SES flood warnings. These conditions will provide for closure of the School prior to inundation which underpins the FERP. Notwithstanding, the FERP also includes a Flood Evacuation Plan that provides for effective evacuation for all events up to the PMF.

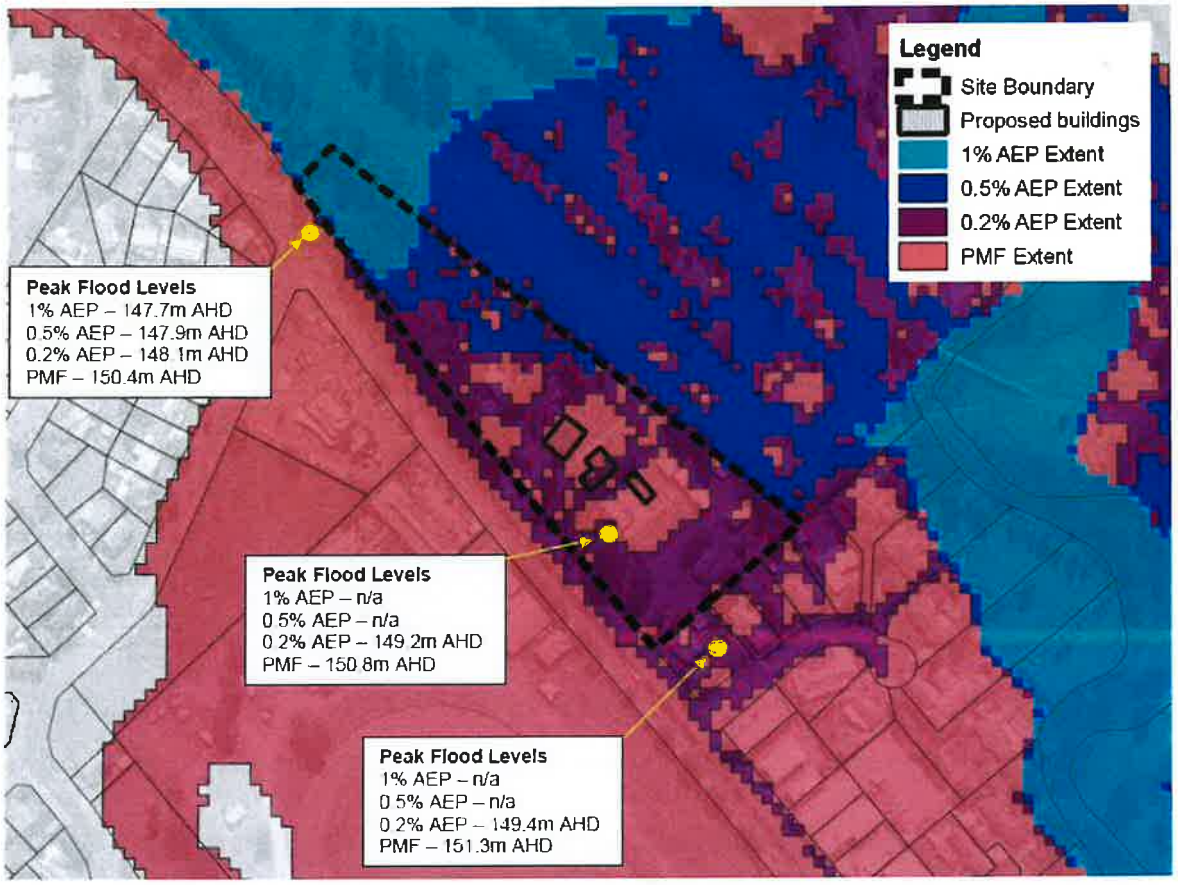


Figure 1 Design flood extents (Source: Torrent Consulting, June 2025)

Discussion regarding the practicality of bus availability and ownership for evacuation purposes.

The school will purchase buses with sufficient capacity for the site's population that will be parked on the site. Whilst the buses will be utilised for excursions and other activities, there will always been sufficient capacity on site to manage emergency evacuation, and this is the priority goal for the School in owning and operating the buses.

The Panel questioned how the balance of the site outside the school footprint will be managed and this needs to be considered in the assessment.

The northern portion of the site will be fenced and will not be utilised as part of the school grounds (**Figure 2**). For short periods before and after school, there will be pedestrian access between the school campus and Maitland Street. This pedestrian access route has been selected as it ensures that students do not have to cross the school driveway when walking to the bus stop on Maitland Street.

In addition to the physical barriers in place across the site, the School will also be implementing operational management measures that ensure the whole of the school site is in its control at all times. Namely, in the event of inclement weather, staff would be managing and accounting for all student and staff movement across the site, directing movements to the interior of the buildings. In the event that the site needs to be evacuated, School staff will carry out necessary roll call checks. School electronic signage will be updated to ensure those external to the site are aware of any evacuation status being implemented by the School. The school will undertake regular maintenance of the grounds including the rubbish removal.

These management measures are considered adequate in regard to the management of the site outside of the school footprint.

Torrent Consulting also notes that only a proportion of the Site at the northern end is inundated at the 1% AEP magnitude, only impacting landscaping, vegetation or minor structures and only to a

minor extent, not requiring management. Further, as there will be no student access to the flood inundated area of the site at any time, and as there is no public access to the site (as with any independent school site), the flood prone part of the land is not going to have any ordinary or incidental usage of the site that requires any specific management beyond that discussed above.

Torrent also notes that the public have access to the golf course which is a higher flood risk. Therefore, the proposal is not introducing an increased level of flood risk exposure as a result of access arrangements across the balance of the site outside of the school footprint.

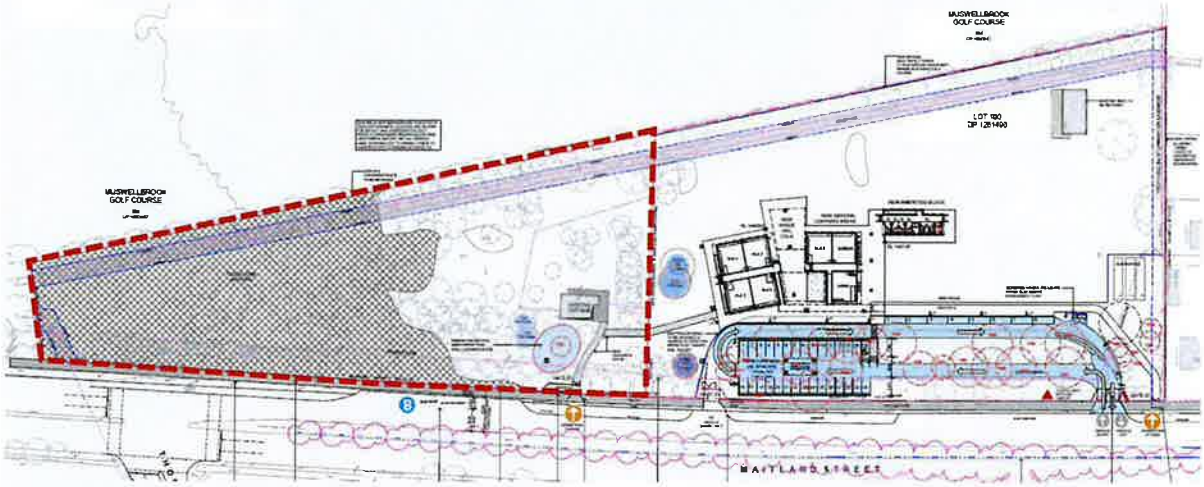


Figure 2 *Extract of proposed site plan with the northern portion of the site identified in red (Source: NBRS Architecture)*

The panel want a very clear and basic understanding of warning and evacuation timeframes and actual triggers for shutting the school so that evacuation processes can be avoided.

Torrent Consulting confirms that school closure prior to flooding of the Site will be under any of the following conditions:

- *BoM Flood Watch issued including warning for moderate to major flooding (typical 24hours notice)*
- *BoM Flood Warning issued including warning for moderate to major flooding (typical 12 hours notice)*
- *Automatic Flood Alert from Muswellbrook FWS (variable warning typically 8 hours reducing to 1hour in extreme event)*

In addition to the above, Torrent outlines that in the unlikely event the school is open during very rare flood events (being those greater than the 1 in 500 year event) the following conditions will trigger a Site evacuation to the refuge facility:

- *SES Prepare to Evacuate warning issued for expected major flooding (typical 8hours notice)*
- *SES Evacuate Now warning issued for imminent major flooding (typical 8hours notice reducing to 1hour in extreme event))*
- *Automatic Flood Alert from Muswellbrook FWS (typical 8 hours notice reducing to 1hour in extreme event)*

These warnings, evacuation timeframes and triggers are detailed in a summary document at Appendix E of the updated FERP.

The additional tree loss associated with amendments to manage traffic impacts needs to be carefully assessed and the Panel will want to understand the quality and value of the vegetation that is proposed for removal.

A total of 27 trees are proposed to be removed to facilitate the proposed development. Due to the history of the site as an arboretum, where the trees were planted for display during the 1960s

and 70s, many of the trees have structural defects or are now dying or senescent. Accordingly, the trees have been assessed by the arborist as having low landscape significance (refer to the Arborist Impact Assessment Report prepared by Abel Ecology dated 24 January 2025).

In addition, the Prescribed Ecology Actions Report (PEAR) prepared by Abel Ecology (dated 24 January 2024) found that the development will result in the removal of 3,976m² of canopy coverage, comprising 1,909m² of native vegetation and 2,067m² of exotic vegetation. The removal of 1,909m² of native vegetation does not exceed the clearing threshold of 0.25 hectares under section 7.2 of the *Biodiversity Conservation Act 2016* (BC Act). Therefore, the development does not trigger entry into the Biodiversity Offsets Scheme, and a Biodiversity Development Assessment Report (BDAR) is not required.

The removal of 27 trees will be offset by the planting of 33 new trees on the site (**Figure 3**) comprising:

- Three (3) x *Angophora costata* (Smooth-barked Apple)
- Three (3) x *Elaeocarpus reticulatus* (Blueberry Ash)
- Five (5) x *Eucalyptus punctata* (Grey Gum)
- Four (4) x *Eucalyptus tereticornis* (Forest Red Gum(
- Ten (10) x *Meleuca lineariifolia* (Flax-leaved Paperbark)
- Eight (8) x *Waterhousia floribunda 'Sweeper'* (Weeping Lilly Pilly)

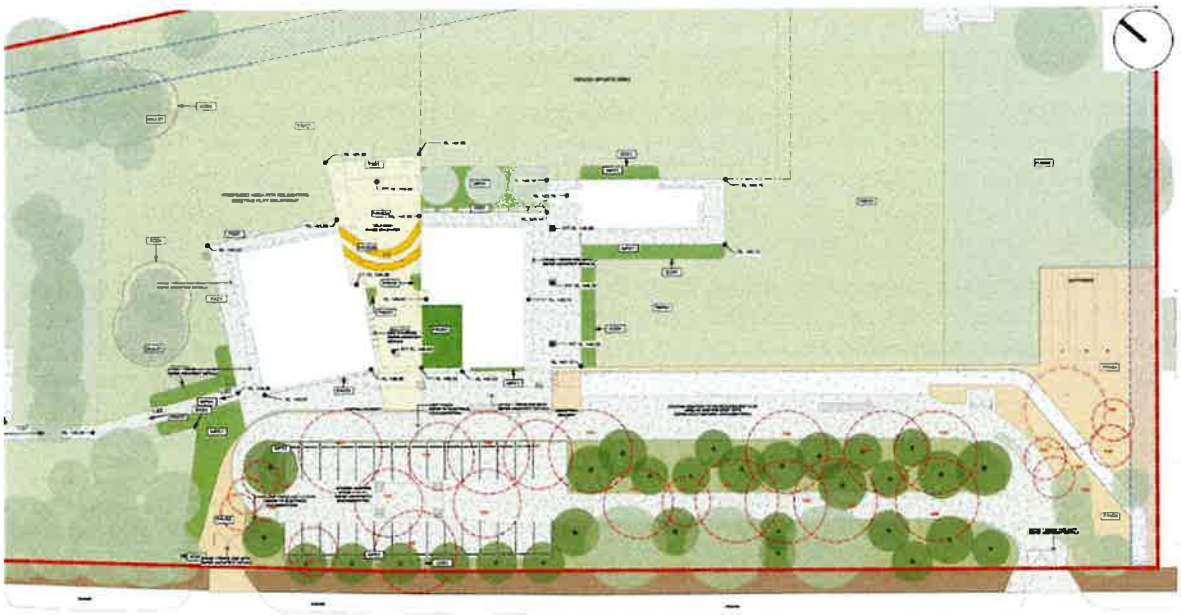


Figure 3 Stage 1_Level & Finishes Plan (Source: NBRS)

The Panel will need to closely consider the appropriateness of the site for a school given the constraints being discussed.

The School recognises that the HCC RPP needs to consider the suitability of the site for a school, particularly having regard to flooding, and notes that this assessment is carried out within the framework of legislation, guidelines and policies that are presently in force.

The information provided has been framed to as to meet the guidance and resources for addressing flood risk in planning decisions under Attachment A of *Planning Circular PS 24-001 Update on Addressing Flood Risk in Planning Decisions*. The DA material and subsequent supporting documentation submitted in RFI1 and RFI2 enables Council and the HCC RPP to consider the full range of impacts associated with flooding against the relevant legislative framework including s4.15 of the EP&A Act, as well as cl5.21 and cl5.22 of Muswellbrook LEP, as well as the 'further guidance' provided in PS 24-001, where DPHI recommends a "risk-based approach" is adopted for regional DAs.

The Flood Impact Assessment and updated FERP consider a range of matters across a range of flood events as discussed above, and provide a balance of both detailed and simplified assessment to meet the Panel's needs to ensure the range of matters listed in the Planning Circular have been addressed.

3. State Emergency Service

The NSW State Emergency Service (SES) has been involved in providing commentary and feedback on the PBCS project from an early stage. The HCC RPP may consider the recent inputs from the SES as a relevant part of their assessment, and so it is relevant to reiterate the RFI1 response to the November 2024 SES comments, which included updates to the FERP, additional details on flood warnings and triggers, summary of minimum flood warning and emergency response timelines and actions, and findings of an independent review of the Flood Impact Assessment and updated FERP (at that time). RFI1 was submitted to Council on 4 February 2025.

On 20 February 2025, SES provided a response to the updated FERP, which referenced all earlier correspondence from SES, and raised two (2) further points, namely around Flood Risk, and Private Emergency Plans.

Flood Risk

In regard to flood risk, SES remains concerned about a school on this flood prone site that is subject to inundation in the PMF event, given that future occupants may not be able to self-evacuate, which transfers risk to SES for evacuation, resupply and potential rescue.

In response to these concerns, this letter notes that the probability of flood events, extent of flood inundation and location of buildings has all been based on a conservative approach that the school (like many schools around the State in similar flood forecast situations) will be closed before the need for evacuation arises. Buildings are immune from inundation up to the 1 in 10,000-year event. Management plans are in place to ensure students aren't present during a flood event but if they were, then school management protocols and bus services available to corral all students into a safe location, into buses and off-site to a Council-endorsed flood shelter.

To this extent, EPM is of the view that the concerns regarding flood risks raised by SES have been addressed in the DA and updated FERP documentation submitted to Council for assessment and the HCC RPP's determination.

Private Emergency Plans

In regard to the use of private emergency plans, the SES notes that they do not have the statutory authority to endorse or approve flood emergency response plans. The SES notes that a FERP should not be used to manage an underlying flood risk, and cites a number of concerns that underpin this position, such as reliance on the Muscle Creek warning system, failure-prone flood warning systems and other technical support systems that are not controlled by SES.

In response to these concerns, the School submits that the use of an FERP is an industry-standard, best practice approach being adopted across the State and being used to deliver accepted emergency responses in NSW. The School notes that during the 2021, 2022 and recent 2025 East Coast Low events, many schools across the Northern Rivers, Central Coast and Hunter regions were closed in advance based on flood warnings. These decisions helped avoid danger and allowed for orderly closures without any reported injury to students or staff. The approach to this project reflects the same principles.

Further, the approach to flood risk and emergency response adopted by this project is reflective of a thoughtful site design, clear emergency protocols (with multiple layers and redundancies) and practical planning. The proposed approach aligns with best practices used across NSW to provide confidence that students and staff will be kept safe under all conditions.

Accordingly, it is submitted that should HCC RPP consider the recent SES feedback, that these concerns be considered addressed and appropriately mitigated in the updated documents.

4. Transport for NSW

Table 2 provides a response to each of the matters raised by TfNSW in their RFI letter dated 10 March 2025.

Table 2 Response to matters raised by TfNSW

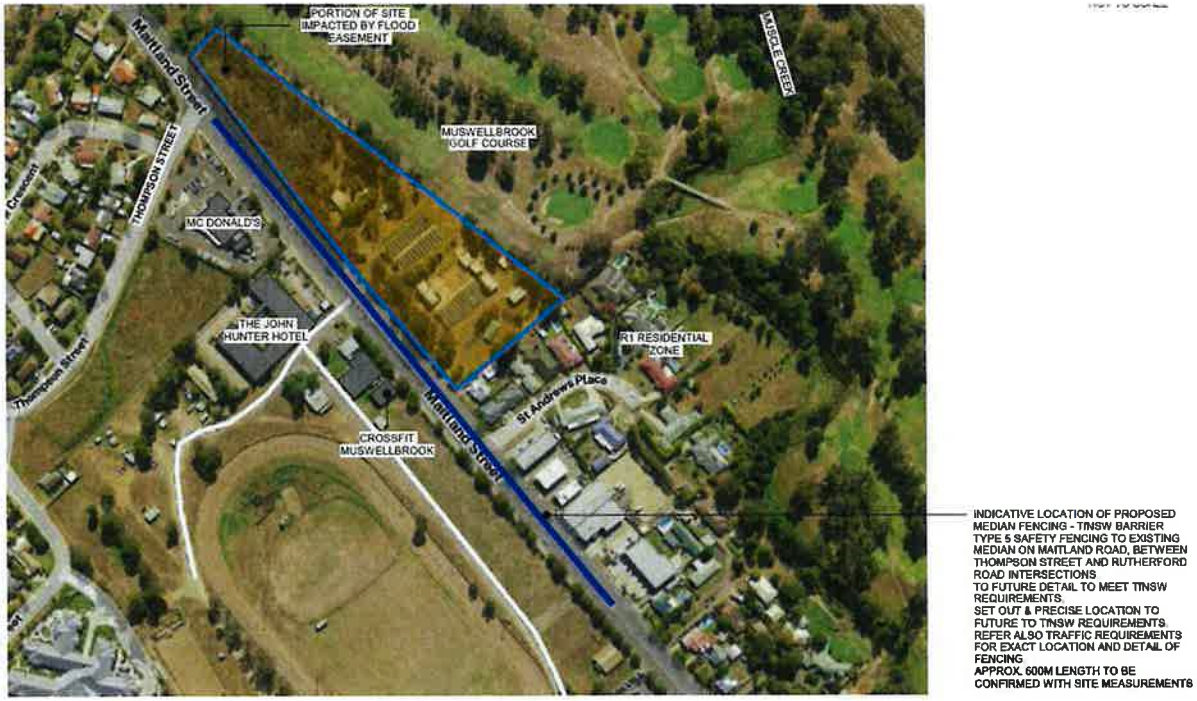
#	Matter	Response
1	*There is the potential for parents to drop-off and pick-up children from the shoulder of the New England Highway adjacent to Rutherford Road to avoid the school pick-up/drop-off area. It is likely that these children will cross the New England Highway unsafely, posing a significant safety concern.* *As such, the Transport Type 5 Barrier Fence should be extended along the entire length of the median from Thompson Street to Rutherford Road.*	It is proposed to extend the Transport Type 5 Barrier Fence within the landscaped section of the median from Thompson Street to Rutherford Road (**Figure 4**).  *Figure 4 Median Fence Diagram (Source: NBRS)*

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Table 2 Response to matters raised by TfNSW		
#	Matter	Response
2	*The catchment area shown in the TIA indicates that 35% of students reside to the north of the site. These students can only access the site entrance via the Sydney Street / New England Highway intersection, and the Bell Street / New England Highway intersection. TfNSW notes that these intersections have not been modelled. Council should be satisfied that all relevant intersections have been considered and assessed.*	A detailed response has been prepared by ptc. which outlines that traffic surveys and updated traffic modelling have been prepared to include the Bell Street intersection, the results of which are appended to ptc's letter in an addendum Traffic Impact Assessment. In summary, ptc. outlines that the modelling confirms that the intersection continues to perform at a Level of Services B in the morning peak and A in the evening peak in all scenarios. This assessment confirms that the proposed school has no notable impact on the intersection performance as raised by TfNSW.
3	*Confirmation of the location of the proposed fencing should be clearly noted on the plans, and details regarding the current and proposed Over Size Over Mass (OSOM) clearance is still necessary for TfNSW to understand whether there will be impacts for the OSOM network. Further consultation may be required with Council and TfNSW regarding the location of the fence due to the vegetation in the median.*	Details of the proposed fencing are provided in the updated plan provided by NBRS, as shown in **Figure 4**. In their letter, ptc. confirms that the location has been established so that the 10m Over Size Over Mass (OSOM) clearance is maintained.
4	*Details on the potential noise impacts from the New England Highway freight corridor have not been provided to TfNSW for review.*	A Noise Impact Assessment (NIA) was prepared by Acoustic Logic (dated 10 July 2024) and lodged as part of the DA. As part of the preparation of the NIA, unattended noise monitoring occurred between Tuesday 28 July 2020 and Wednesday 6 August 2020. Noise loggers were located at two (2) locations to determine the existing acoustic environment (**Figure 5**). One (1) acoustic logger was located on the eastern boundary with the Muswellbrook Golf Course to determine background noise levels and whether noise from the rail corridor would have any impacts. The second noise logger was located on the Maitland Street frontage to capture existing traffic noise levels including noise generated by the New England Highway freight corridor. The NIA observed that there have no significant changes to the exiting acoustic environment since the 2020 monitoring occurred. The NIA includes an assessment against the Department of Planning's *Development near rail corridors and busy roads – interim guideline* (2008). In relation to traffic noise, the NIA note that in the future it is likely that

Table 2 Response to matters raised by TfNSW

#	Matter	Response
		traffic noise along Maitland Street will be reduced. This is a result of the construction of the proposed Muswellbrook bypass, along with the introduction of the 40km/hour school zone. However, until the bypass has been constructed, the maximum internal noise level criteria of 40dB within the classrooms will be exceeded and therefore, the NIA recommend an acoustically treated façade to the Maitland Street elevation. In addition, an alternative building ventilation system will be required so that windows can remain closed. A copy of the NIA can be provided to TfNSW at their request.  *Figure 5 Location of Noise Loggers (Source: Acoustic Logic)*
5	*TfNSW notes there are existing "Loading Zone" and "No Stopping" signage along the frontage of the site. Council should be satisfied of these arrangements and details of the signage should be shown in the plans.*	No changes to the existing signage along Maitland Street are proposed. If any changes are required, then this will require the approval of Council's Traffic Committee.

Table 2 Response to matters raised by TfNSW		
#	Matter	Response
6	*The construction of the new bus bay will require a geotechnical investigation. Any new pavement will be subject to a TfNSW Pavement Approval.*	Noted. This can be addressed through a condition of consent.
7	*All new Drainage on Maitland Street will need to be designed and constructed in accordance with TfNSW QA Specification R11 Stormwater Drainage.*	Noted. This can be addressed through a condition of consent.
8	*All new Kerb work on Maitland Street will need to be designed and constructed in accordance with TfNSW QA Specification R15 Kerbs and Channels (Gutters).*	Noted. This can be addressed through a condition of consent.
9	*Removal of TfNSW sealed pavement is to be minimised as much as practical. Any pavement restoration that may be required is to be deeplift asphalt in accordance with TfNSW QA Specification R116 Heavy Duty Dense Graded Asphalt.*	Noted. This can be addressed through a condition of consent.
	The TIA outlines that a five-point manoeuvre is required to for busses to exit designated parking bays in an emergency. Council should be satisfied that this is appropriate.	The school's preliminary Operational Management Plan has been updated to identify appropriate bus manoeuvring procedures during emergency operations.
	The driveway/access(es) are to be constructed to Council standards.	Noted. This can be addressed through a condition of consent.

Table 2 Response to matters raised by TfNSW		
#	Matter	Response
	The delivery timeframe for the Muswellbrook Bypass is not yet confirmed. As such, Council should be satisfied that appropriate acoustic treatments identified by the noise assessment will be delivered as part of construction.	Noted. This can be addressed through a condition of consent
	The location of new bus stops should be provided by the school and are typically delivered by local council with input from TfNSW and local bus operators.	A new bus stop has been identified on Maitland Street. This will be subject to the approval of Council's Traffic Committee with inputs from TfNSW and the local bus operators.
	As road works are required on Maitland Road (HW9), TfNSW will exercise the functions of the roads authority in accordance with Section 64 of the Roads Act 1993 and require the developer to enter into a Works Authorisation Deed (WAD) with TfNSW. The applicant should ensure the strategic design for the works is prepared in accordance with TfNSW Strategic Design Fact Sheet.	Noted. This can be addressed through a condition of consent.

5. Conclusion

Having regard to the information summarised above and the accompanying updated specialist information, EPM Projects notes that the relevant concerns of Council, SES the HCC RPP have been considered and addressed as follows:

- Flood Risk: The school buildings are built on raised ground at RL149 to ensure they have flood immunity up to very rare events. Floodwaters will not enter the buildings under most circumstances.
- Management of Flood Risk: The school's principal evacuation strategy is school closure. A clear plan is in place to close the school early whenever major flooding is forecast. This essentially removes the risk that staff or students will even be on the school site during a flood event. Warnings are taken from Bureau of Meteorology, Council's local flood warning system and real-time data collected on site.

  If flooding occurs while the school is open, staff and students will be safely evacuated to the Muswellbrook Sports Centre, which sites outside the flood zone. This route is usable for up to 70 minutes after floodwaters begin rising during even the worse-case flood scenario, giving the school time to evacuate safely using buses or on-foot.
- Real-World Context: School closures due to forecast flooding are not uncommon and are already an accepted emergency response in NSW. The School notes that during the 2021, 2022 and recent 2025 East Coast Low events, many schools across the Northern Rivers, Central Coast and Hunter regions were closed in advance based on flood warnings. These decisions helped avoid danger and allowed for orderly closures without any reported injury to students or staff. The approach for this PBCS project reflects the same principle, and adopts an approach that has already been proven effective in other NSW school communities.
- Panel Concerns Addressed: This letter provides additional information (including revised flood reporting and FERP) which addresses the matters raised by the HCC RPP. Sufficient information has been provided to enable the Panel to understand the context specific to this site, with the flood emergency management framework sufficiently distilled into easy reference documents that can be used by the Panel, the Public or the School Staff.
- A Safe and Reasonable Proposal: Flood risk has been responsibly managed through thoughtful site design, clear emergency protocols, and practical planning. The proposed approach aligns with best practices used across the State and provides confidence that students and staff will be kept safe under all conditions.

EPM submits that the details set out above and in the attached documentation should be provided to and read by the HCC RPP in full, to appreciate the specific approach of this application to the issues that have been raised.

Should you have any queries, please contact the undersigned on 0404 785 912 (Amy) or 0419 199 225 (Stephen).

Yours sincerely,

EPM Projects

Amy Cropley

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Our Ref: DJL: L.T2583.002.docx

03 June 2025
Pacific Brook Christian School Ltd
c/- Impact Group
Level 1, 51 Walker Street
NORTH SYDNEY NSW 2060.

Att: Richard Wykes

Dear Richard

RE: FLOOD EMERGENCY RESPONSE PLAN FOR PACIFIC BROOK CHRISTIAN SCHOOL – 72-74 MAITLAND ROAD, MUSWELLBROOK NSW

This letter provides a summary of responses to Hunter and Central Coast Regional Planning Panel (Panel) comments provided in the "Record of Briefing" following the videoconference meeting of Tuesday 18 March 2025. Specifically, the response relates to matters raised regarding the Flood Emergency Response Plan (FERP) as detailed below.

***Comment**: The Panel need to factually understand the flood impacts and scenarios, hazard categorisation and how the proposal will deal with these.*

Response: Peak flood inundation and depth mapping for a range of flood event magnitudes is included in the FERP at Appendix A, with corresponding flood hazard classification at Appendix B. Some key observations include:

- Only lower portion of the Site remote from the School buildings is inundated at 1% AEP (1 in 100)
- School building area only subject to minor inundation at low hazard (H1) classification up to 0.2% AEP (1 in 500) magnitude.
- School building elevated above ground level providing for approximate 0.01% AEP (1 in 10,000) design flood immunity
- PMF event provides for extensive inundation of Site and surrounds at high hazard (H5-H6) classification.

Given the scale and magnitude of rainfall across the Muscle Creek catchment (~100km^2) required to generate high hazard flood conditions at the School, significant lead warning time will be available from official BoM forecasts and warnings, and SES flood warnings. These conditions will provide for closure of the School prior to inundation which underpins the FERP.

Notwithstanding, the FERP also includes a Flood Evacuation Plan that provides for effective evacuation for all events up to the PMF in the extremely unlikely scenario this scale of flooding occurs without warning, within the hours of school operation and pre-emptive closure of the School has not occurred.

Section 2 of the FERP identifies the Site flood behaviour, Section 3 provides analysis of flood warning and response timelines, Section 4 details a flood response strategy underpinned by pre-emptive school closure.

***Comment**: Discussion regarding the practicality of bus availability and ownership for evacuation purposes.*

Response: This largely deals with school operations and will be addressed by others.

***Comment**: The Panel questioned how the balance of the Site outside the school footprint will be managed and this needs to be considered in the assessment.*

Response: Some flood related observations are provided below noting no specific flood management requirements:

- Only a proportion of the Site at the northern end is inundated at the 1% AEP (1 in 100) magnitude. The flooding is influenced by backwater influence from Bell Street and there is broad inundation across the adjacent floodplain within the Golf Course. Any minor landscaping, vegetation works or minor structures outside the school footprint will not influence the flooding conditions or have adverse impacts requiring management.
- There will be no Student access to the Site area outside the school footprint in flooding conditions with operations ceased and school closure in place. Public access to the Site will be as per normal school security provisions, however, it is noted there is public access to the golf course which is a higher flood risk.

***Comment**: The Panel want a very clear understanding of warning and evacuation timeframes and actual triggers for shutting the school so that evacuation processes can be avoided.*

Response: School closure prior to flooding of the Site will be under any of the following conditions:

- BoM Flood Watch issued including warning for moderate to major flooding (typical 24hours notice)
- BoM Flood Warning issued including warning for moderate to major flooding (typical 12 hours notice)
- Automatic Flood Alert from Muswellbrook FWS (variable warning typically 8 hours reducing to 1hour in extreme event)

In the unlikely event the school is open during very rare flood events (>1 in 500year) the following conditions will trigger a Site evacuation to the refuge facility:

- SES Prepare to Evacuate warning issued for expected major flooding (typical 8hours notice)
- SES Evacuate Now warning issued for imminent major flooding (typical 8hours notice reducing to 1hour in extreme event))
- Automatic Flood Alert from Muswellbrook FWS (typical 8 hours notice reducing to 1hour in extreme event)

THE FERP documentation includes a "one-page" Flood Action Plan with the above warnings and triggers in Appendix E. Further detail on the response is included in the FERP Executive Summary and Section 3.4 Flood Warning Triggers and Timeline Analysis.

We trust that this provides a suitable information for the Panel response.

Yours faithfully

Torrent Consulting

Darren Lyons
Principal Water Resources Engineer
CPEng MIEAust RPEQ