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Our Ref: DJW: L.T2030.004.docx

7 September 2022 Mr Stephen Dobbs Senior Planning Officer Department of Planning, Industry & Environment Locked Bag 1002 Dangar NSW 2309

Dear Mr Dobbs

RE: FLOOD EMERGENCY RESPONSE PLAN FOR NEWCASTLE GRAMMAR SCHOOL – PARK CAMPUS, CNR. UNION STREET AND PARKWAY AVENUE, COOKS HILL NSW

Please find enclosed a Revised Draft of the Newcastle Grammar School (NGS) Park Campus Flood Emergency Response Plan (FERP), following review by DPIE.

The comments received from DPIE have been addressed and incorporated within the FERP document, including the addition of a Technical Appendix. This has facilitated the transfer of some of the more technically heavy content from the main body of the FERP. This improves clarity for readers of the FERP, whilst retaining important context for those staff that will play key roles in the flood emergency response management.

The flood warning system provides an expected 30-minute timeframe within which to relocate students to the flood refuge for a rare 0.5% AEP event (similar to the June 2007 storm). There is a 20-minute timeframe for even very rare flood events, including the 0.05% AEP (2000-year ARI). This is twice the required time to undertake the relocation and additional measures within the FERP will ensure that most students would already be in the Union Street building if on site when severe weather is expected. Whilst the available warning time is halved for the PMF event, it is still a sufficient time to seek refuge and is an extremely rare occurrence (estimated 10,000,000-year ARI rainfall).

Whilst not essential for the effective management of the risk to life from flooding, NGS is currently in discussion with key stakeholders such as CN, Hunter Water, EWN and MHL regarding the installation of additional an additional rain gauge at the Park Campus. This will provide a third rain gauge location relevant to Cottage Creek catchment flooding and further strengthen the existing system. This would be in addition to the recommended water level gauge on Cottage Creek, for which discussions with the key stakeholders is underway.

If for whatever reason the relocation of students to the flood refuge from the other buildings on site is not completed prior to the onset of flood inundation, alternative emergency refuge can be sought in the first-floor levels of those buildings. Whilst not as well equipped as the dedicated flood refuge, they would at least offer safety from even a PMF event.

Access to and from the school is expected to be possible via Corlette Street even during the peak of a very rare flood event, including the 0.05% AEP (2000-year ARI). Only in an extreme event such as the PMF is the school expected to become completely isolated. Whilst full evacuation from the site is not recommended as a principal flood emergency response due to exposure to severe weather and low hazard flood

conditions, it nonetheless enables emergency evacuation and/or access to the site from the Newcastle CBD.

Because of the above factors, the FERP adequately manages the risk to life from flooding at the NGS Park Campus. However, there is an option that has been considered to reduce the risk even further, which is the incorporation of a footbridge connecting the first-floor level of the Sandi Warren Performance Centre to the Union Street building. Incorporation of the footbridge would provide an additional 40 minutes for occupants of the other buildings to access the Union Street building flood refuge at the 0.5% AEP and an additional 30 minutes at the 0.05% AEP design flood events. An additional 10-15 minutes would be available for the PMF event.

If recommendations from the recent 2022 NSW Flood Inquiry or the impending Peer Review of the NGS Park Campus FERP necessitate the footbridge to be incorporated into the proposed Stage 1 development, then this will be done. Given the limited utility, it is the preference not to propose the bridge, however if deemed critical, NGS can facilitate this design solution. The architectural plans and FERP can then be readily updated following this advice.

We trust that this covering letter and attached Revised Draft of the (NGS) Park Campus FERP adequately addresses the issues raised within the DPIE review. Please do not hesitate to contact the undersigned should you require additional information or clarification.

Yours faithfully

Torrent Consulting

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Dan Williams Director