City of Sydney
Town Hall House
456 Kent Street
Sydney NSW 2000

Telephone +61 2 9265 9333
Fax +61 2 9265 9222
council@cityofsydney.nsw.gov.au

GPO Box 1591 Sydney NSW 2001
cityofsydney.nsw.gov.au

7 November 2017

File No: 2017/556954

Karen Harragon
Director – Social and Other Infrastructure Assessments
NSW Department of Planning and Environment
GPO Box 39
Sydney NSW 2000

Attention: Andrew Beattie
Email: andrew.beattie@planning.nsw.gov.au

Dear Andrew

State Significant Development application for the Inner Sydney High School (SSD 7610) – Response to Submissions

I refer to the letter dated 10 October 2017 which invites the City of Sydney ("the City") to comment on the applicant's Response to Submissions (RtS) on the State Significant Development application.

The continued use of the site as a school and reuse of the heritage buildings for education purposes is a positive outcome for Sydney and one which the City supports. In this regard, the applicant's RtS has been able to address some of the previous concerns raised. Despite design development, the City does continue to have some areas of concern with the application in its revised form, particularly as it relates to **flooding**, and its **design interface with Prince Alfred Park**.

The RtS identifies that the proposed flood planning protection measures for the school that involves the construction of diversion walls around the site that will have an impact on flood levels around the site. The impact has been estimated as:

- raising of flood levels along the Chalmers Street frontage by up to 600mm,
- raising of flood levels by 85mm in Pembroke Street, and the
- raising of flood levels in Prince Alfred Park by 400mm in the 1% AEP storm event.

The RtS identifies the need for further site specific flood studies to be undertaken with appropriate flood mitigation measures to be recommended to protect the proposed school as well as not having an adverse impact on the surrounding streets and the park. As such, the revised proposal currently fails to compliance with the City's *Interim Floodplain Management Policy*. The site specific flood study and flood mitigation options identified in the RtS needs to be prepared and submitted for consideration **prior to any determination of the application**.

The other outstanding issue relates to the Prince Alfred Park interface and the need for the design to respond to the Victorian sensibility of the park. The RtS relies upon

land within the park to redefine the overland flow paths, and to mitigate level changes and access requirements between the proposed buildings and the park. These works include the introduction of terraces/retaining walls, a seating wall, and planting that does not tie into the existing park palette. These works are outside of the school grounds within the park and therefore require engagement with the City's Parks and Public Domain teams are necessary to satisfactorily resolve these concerns.

In addition to the above, other development issues have been identified that require further consideration. These may be found within **Attachment A** to this letter.

Should you wish to speak with a Council officer about the above, please contact Michael Soo, Senior Area Planning Manager, on 9265 9333 or at msoo@cityofsydney.nsw.gov.au.

Yours sincerely,

Graham Jahn AM
Director
City Planning I Development I Transport

ATTACHMENT A

Tree Retention and Protection

The City supports the proposed retention and protection of Trees 1 and 17 (both which are listed on the City's Register of Significant Trees and estimated to be between 100-150 years old). However, the arborist report has not properly assessed the likely below and above ground impacts of the works on these trees.

For example, the arborist report indicates that works will encroach within the tree protection zone (TPZ) of Trees 1 and 17 by 20% and 25% respectively. Australian Standard AS4970 (Protection of trees on development site) defines this as a major encroachment, and requires root investigation to be undertaken in order to establish if the tree retention will be viable. The arborist report does not include root investigation information and does not explain how significant of an impact the TPZ encroachment will be on the trees. The report also does not satisfactorily address the above ground impacts from construction (including the need to install scaffolding) on the significant tree canopy spread. If necessary, the below and above ground building design should be modified accordingly.

In addition, it is recommended that the canopy of both trees be accurately surveyed to establish he extent of pruning required to allow the building to be constructed (including any required scaffolding and the required clearances). Once accurately surveyed, any pruning should be limited to a total of 15% canopy removal with a maximum branch diameter of no more than 150mm diameter.

Natural Ventilation

The adaptability of the project is being inherently constrained due to acoustic requirements. It is not clear that design options for natural ventilation have been explored. The project is vulnerable in the event of any disruption to the mechanical ventilation system. Without natural ventilation the spaces will overheat and not be suitable for occupation. The proposed approach to mechanical ventilation is simply conventional contemporary practice for the design of an office building in Sydney. It is not best practice for teaching spaces and does not acknowledge the importance of a health learning environment. There is also no information in the RtS to confirm that night purge through openable windows is available.

Water Efficiency

In the context of a public sector building, dual plumping reticulation for toilet flushing is a reasonable expectation. Even if the roof area is trafficable in terms of student play space, this does not reduce the potential to filter and capture roof water, store and reticulate to toilet flushing. Students and staff should be made aware of this via signage - signage can convey powerfully to students and staff that a commitment has been made conserve natural resources.

Energy Efficiency

The City advises that solar and/or heat-pump technology are the logical choices for hot water services. Gas or gas-boosting locks the school into additional operating cost risks. The Northrop response state it is expected that *"this will be a relatively minor load within the building as it will primarily supply science labs and low flow tapware"*. This may understate standing losses and, if hot water is reticulated to all staff and student bathrooms (this is not mandatory) there are extensive hot water

pipe chases which will trigger hot water draw down. Solar (evacuated tube recommended) with controlled boosting or heat pump water heating is recommended.

Overshadowing

The drawings are unclear in that shadow falling on glazing of 204-214 Chalmers Street is not identified. However, it is clear that the west facing apartments in the south west corner of this building are impacted at 3pm. At midday, the angle of sun is too oblique to the facade to be of any effect. These apartments therefore rely on solar access from some time after midday (possibly 12:30) for the following two hours. In the existing condition, they are compliant.

In the proposed condition, the material submitted shows that solar access is lost at 3pm. This impacts two apartments each at level 1 and 2, and 1 apartment at levels 3, 4, and 5. Without the half hour views, it is not possible to conclude whether these 7 apartments change from a complying to non-complying status. The Department should satisfy itself whether the reduction in sunlight hours results in a solar access non-compliance or not, and whether the resultant amenity is acceptable.

Wind Impacts

The CPP letter in the RtS does not address the specific areas within the school site such as the podium areas located outside the tower footprint. The City's concerns relate to the usability of the spaces and that any physical structures to ameliorate wind are considered holistically as part of the proposal, rather than ad hoc additions at a later date.

Egress

Given that this is a BCA issue, the Department should satisfy itself of the suitability of the revised egress solution.

Insufficient Information

Materiality and Facades – insufficient information has been submitted to clarify or confirm final material selections. A sample board has not been provided to the City for review.

Full commercial kitchen - Insufficient information has been submitted regarding the full commercial kitchen now proposed. The Department should satisfy itself that this element of the proposal complies with all relevant standards and is acceptable.