

UNSW Science and Engineering Building

Attachment A - Response to Submissions

Issues Raised by Agencies	Proponent's Response
Department of Planning and Environment	
General	
Clarification is required as to whether any works are proposed, as part of this application, with regards to the creation of the academic offices, workplace storage areas and meeting rooms located along and adjacent to the western wall of Levels 1 - 7 of the Material Science Engineering Building (MSEB). The Architectural Plans indicate, through bold emphasis, that the existing configuration of this section of the MSEB will be altered to create the aforementioned spaces, however the works are not described in Section 3.0 Description of Development within the Environmental Impact Statement.	This is an omission in the EIS. The Description of Development at Section 3.0 should make reference to minor remodelling works adjacent to the western wall of the existing MSEB, to accommodate the proposed bridge links at Levels 1 – 7. The offices, storage areas and meeting rooms already exist, however require modification to accommodate the proposed bridge links.
Hazard Waste Storage	
Section 3.6 "Hazardous Waste" of the EIS references the SEPP 33 Review report (Appendix D) and the Waste Management Plan (Appendix N). Figure 3-6 of the SEPP 33 Review report shows a different site layout (indicating storage locations for DG and hazardous waste) compared to Figure 2 of the Waste Management Plan. As such, please provide clarification on the site layout for the proposed development.	Core Engineering has updated their report to show the most recent location for the DG stores at Figure 3-1 (refer to Attachment B).
Figure 3-6 of the SEPP 33 Review report and Figure 2 of the Waste Management Plan shows that the flammable gases (including LPG) will be stored in an enclosed area. Please provide clarification if the design of this area will be in accordance with the relevant Australian Standards (AS 1596, in particular).	Core Engineering notes that SEPP 33 does not include safety protections in the analysis (with the exception of bunds when measuring storage locations to boundaries). Notwithstanding this, the SEPP 33 Review has been updated to reference the relevant Australian Standards (refer to Table 3-1). A copy of the updated SEPP 33 Review is provided at Attachment B.
The following inconsistencies were noted in the SEPP 33 Review report: ▪ The maximum storage quantity for DG Class 8 Packing Groups I, II and III corrosives is listed in Table 3-3, but not listed in Table 3-2; and ▪ The maximum storage quantity for LPG is listed separately from DG Class 2.1 flammable gases in Table 3-3, but is not listed separately in Table 3-2.	Core Engineering has revised their SEPP 33 Review to address the inconsistencies that have been raised (refer to Attachment B).

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It is assumed that the quantities in Table 3-3, which is used in the preliminary risk screening, is consistent with the storage arrangements for the proposed development, as shown in Figure 3-6. Please note that Figure 7 (not Figure 6, as indicated in Table 3-1) in the Department's Applying SEPP 33 should be used to determine the appropriate threshold for DG Class 2.1 flammable gases, liquefied under pressure, excluding LPG (i.e. acetylene). As such, please provide confirmation on the maximum storage quantity for: - DG Class 2.1 flammable gases, pressurised but not liquefied (excluding LPG); - DG Class 2.1 flammable gases, liquefied under pressure (excluding LPG); and - LPG (please refer to item 4 below). Following confirmation on the maximum storage quantities, please revise the preliminary risk screening, if necessary.	
Table 3-2 of the SEPP 33 Review report states that LPG will be stored in G size cylinders (approximately 45L water capacity, which is 20kg at most). However, it is generally known that LPG is not normally stored in G size cylinders. As such, please provide clarification on the size of LPG cylinders and the number of LPG cylinders proposed to be stored.	Clarification has been provided at Table 3.1 of the updated SEPP 33 Review (refer to Attachment B).
Table 3-3 of the SEPP 33 Review report states that up to "20" LPG will be stored. This quantity is compared with the 10 tonne screening threshold to conclude that the development is not potentially hazardous, on the basis that the maximum storage quantity for LPG is below the screening threshold. As such, please provide clarification on the units of measure (m³, kg or tonnes) for the maximum storage quantity for LPG.	Clarification has been provided at Table 3.1 of the updated SEPP 33 Review (refer to Attachment B).
Figure 3-6 of the SEPP 33 Review report indicates that "liquid cryogenics" will be stored within 3 tanks. As such, please provide further information on: - The type of refrigerant used within the refrigeration process for the 3 storage tanks (if the refrigerant is classified as DG, the quantity of refrigerant must be taken into account in the preliminary risk screening); and - The type of materials to be stored within the 3 storage tanks. Please note that UN 1073 "Oxygen, Refrigerated Liquid", which may be stored within the 3 tanks, is DG Class 2.2 with subsidiary-risk 5.1. As such, if this material is proposed to be stored, the quantity of this material must be included within the preliminary risk screening for comparison with the screening threshold for DG Class 5.1 (5 tonnes).	No oxygen will be stored as cryogen within the proposed building. Core Engineering has revised their SEPP 33 Review to address the remaining concerns around the storage of argon and nitrogen (refer to Attachment B).
Roads & Maritime Services	
A Construction Traffic Management detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to Council prior to the issue of a Construction Certificate. The Preliminary Construction Traffic Management Plan shows a construction zone in High Street, Roads and Maritime understands this will be on the northern side of High Street between Anzac parade and Gate 2 entry.	The applicant would accept a condition of consent requiring the preparation of a Construction Traffic Management Plan (CTMP) prior to the issue of a section 109R Certificate. However, to avoid the need to consult with multiple parties, the applicant requests that the CTMP be developed in consultation with Transport for NSW's CBD Coordination Office, with a copy to be issued to RMS and Council for information. The construction zone shown on High Street in the Preliminary Construction Traffic Management Plan (PCTMP) was

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This section of High Street currently has 'No Stopping' full time to address efficiency and bus services in this area. A construction zone may not be supported in this area for the above reasons.	proposed to minimise the number of construction vehicles on the pedestrianised Campus road network. The zone was proposed following consultation with RMS and TfNSW (refer to Appendix U of the EIS). Notwithstanding this, the applicant is willing to review this position in consultation with Transport for NSW's CBD Coordination Office during preparation of the CTMP.
The swept path of the longest vehicle (to service the site) entering and exiting the subject site, as well as manoeuvrability through the site, shall be accordance with AUSTROADS. In this regard, a plan shall be submitted to Council for approval, which shows that the proposed development complies with this requirement. ■ In Appendix B turning paths are required to show construction vehicles can safely ingress and egress the campus from gate 2 onto High Street. The plans submitted only show internal site turn paths.	The suitability of construction vehicle access via this intersection is evidenced by its use during the recent MSEB and the Lower Campus Development Infrastructure Works package. On this basis, it is considered that additional swept path diagrams are not necessary. However, if required, they can be incorporated into the CTMP, as per the recommended conditions.
Sydney Water	
Building Plan Approval	
Due to the proximity of the proposed development to Sydney Water assets, we recommend that Council imposing the following conditions of consent: ■ The approved plans must be submitted to the Sydney Water Tap in™ online service to determine whether the development will affect any Sydney Water sewer or water main, stormwater drains and/or easement, and if further requirements need to be met. The Sydney Water Tap in™ online self-service replaces our Quick Check Agents as of 30 November 2015. The Tap in™ service provides 24/7 access to a range of services, including: - building plan approvals - connection and disconnection approvals - diagrams - trade waste approvals - pressure information - water meter installations - pressure boosting and pump approvals - changes to an existing service or asset, e.g. relocating or moving an asset.	The applicant would accept this as a condition of consent.
Section 73 Compliance Certificate	
Due to the proximity of the proposed development to Sydney Water assets, we recommend that Council imposing the following conditions of consent: A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water. It is recommended that applicants apply early for the certificate, as there may be water and sewer pipes to be built and this can take some time. This can also impact on other services and building, driveway or landscape design. Application must be made through an authorised Water Servicing Coordinator.	The applicant would accept this as a condition of consent.

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Transport for New South Wales	
Sydney Light Rail Project	
As you are aware, the Sydney Light Rail Project was determined by the Department of Planning and Environment (DP&E) on 4 June 2014. TfNSW advises that construction has now commenced and will be carried out in accordance with the existing approvals and any modifications subsequently approved.	Noted.
The light rail alignment will run along Anzac Parade and High Street in proximity to the University of NSW (UNSW). The closest part of the alignment to the Proposed Development will be along Anzac Parade where a light rail stop will be constructed to facilitate travel to and from the University Campus.	Noted.
The primary function of the proposal is to facilitate activities associated with the School of Sciences and Engineering and there may be some sensitive equipment or uses within the proposed building. TfNSW advises the following: ■ In developing the design of the Sydney Light Rail project, TfNSW has worked closely with UNSW to mitigate potential impacts of the Sydney Light Rail in accordance with the existing (current) location of sensitive equipment and uses; and ■ Vibration and electromagnetic interference of the Sydney Light Rail could potentially affect sensitive uses at the new building of the UNSW.	Noted.
TfNSW requests that the applicant assesses the impacts of the operation of the Sydney Light Rail on the future locations of sensitive equipment in the applicant's design and construction of the new building of the UNSW, particularly in regards to Electromagnetic Interference and vibration. The final Electromagnetic Compatibility Management Plan and Vibration Management Plan which will be available on the Sydney Light Rail website should be considered during the assessment.	Noted.
The development of the urban design and landscaping of this facility should also appropriately integrate with the new light rail infrastructure and the local pedestrian and cyclist network.	Noted. The building and public domain have been designed to facilitate pedestrian movements to the new light rail infrastructure.
Construction Traffic Management Plan	
Several construction projects, including the Sydney Light Rail Project are likely to occur at the same time as this development. The cumulative increase in construction vehicle movements from these projects could have the potential to impact on general traffic and bus operations, as well as the safety of pedestrians and cyclists particularly during commuter peak periods.	Noted. The applicant would accept a condition of consent requiring the preparation of a CTMP prior to the issue of a section 109R Certificate. The CTMP will be developed in consultation with Transport for NSW's CBD Coordination Office to minimise any adverse impacts associated with cumulative construction vehicle movements.
As noted in the EIS for the proposed development, during construction, temporary impacts resulting from traffic, access and noise can be compounded as a result of nearby developments. TfNSW requests that the applicant works closely with the CBD Coordination Office and the Sydney Light Rail team to ensure that impacts are minimised in the event that construction of the proposed development occurs in parallel with construction of the Sydney Light Rail project.	Refer to response above. The applicant is willing to develop a CTMP in consultation with Transport for NSW's CBD Coordination Office and the Sydney Light Rail team to ensure that temporary impacts resulting from traffic, access and noise are minimised.

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TfNSW notes that the applicant has prepared a Preliminary Construction Traffic Management Plan (CTMP) as part of the development application. TfNSW requests that the applicant be conditioned to prepare a detailed Construction Pedestrian and Traffic Management Plan (CPTMP) in consultation with the CBD Coordination Office and Sydney Light Rail Team within TfNSW.	In addition to preparing a CTMP, the applicant is willing to develop a detailed Construction Pedestrian and Traffic Management Plan (CPTMP) in consultation with Transport for NSW's CBD Coordination Office and the Sydney Light Rail.
Work Zone on High Street	
The Preliminary Construction Traffic Management Plan (CTMP) states that subject to Council approval, the site may require the implementation of a work zone on High Street to allow for queuing of construction vehicles. TfNSW advises that the Sydney Light Rail Project proposes alterations to the bus and traffic arrangements within the vicinity of the site during the construction of the Sydney Light Rail Project and does not support the implementation and operation of a construction work zone on High Street. TfNSW requests that the applicant consults with CBD Coordination Office within TfNSW in relation to the proposed Work Zone arrangement.	The University understands that there will be alterations to the bus and traffic arrangements within the vicinity of the site during the construction of the Sydney Light Rail Project. As noted above, the applicant is willing to develop a CTMP in consultation with Transport for NSW's CBD Coordination Office and the Sydney Light Rail team to reach a resolution about the Work Zone arrangement.
Recommended Conditions of Consent	
Prior to commencement of any works, a Construction Pedestrian and Traffic Management Plan (CPTMP) shall be prepared in consultation with the CBD Coordination Office and Sydney Light Rail Team within TfNSW. The CPTMP needs to specify, but not be limited to, the following: ■ Location of the proposed work zone; ■ Haulage routes; ■ Construction vehicle access arrangements; ■ Proposed construction hours; ■ Estimated number of construction vehicle movements; ■ Construction program; ■ Consultation strategy for liaison with surrounding stakeholders; ■ Any potential impacts to general traffic, cyclists, pedestrians and bus services within the vicinity of the site from construction vehicles during the construction of the proposed works; ■ Cumulative construction impacts of projects including Sydney Light Rail Project. Existing CPTMPs for developments within or around the development site should be referenced in the CPTMP to ensure that coordination of work activities are managed to minimise impacts on the CBD road network; and ■ Should any impacts be identified, the duration of the impacts and measures proposed to mitigate any associated general traffic, public transport, pedestrian and cyclist impacts should be clearly identified and included in the CPTMP.	The applicant would accept this as a condition of consent, and it is agreed that the CBD Coordination Office and Sydney Light Rail Team within TfNSW is more appropriately placed to review and approve the CPTMP than Council or the RMS. With respect to point 9, it is requested that the reference to the CBD road network be amended to read, the 'local road network' as follows: <i>Cumulative construction impacts of projects including Sydney Light Rail Project. Existing CPTMPs for developments within or around the development site should be referenced in the CPTMP to ensure that coordination of work activities are managed to minimise impacts on the CBD local road network; and</i>
Submit a copy of the final plan to the Coordinator General, CBD Coordination Office within TfNSW for endorsement, prior to the commencement of any work.	The applicant would accept this as a condition of consent.

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NSW EPA** **Only the EPA's specific recommendations have been addressed below.	
CONSTRUCTION PHASE	
Site Investigations and Remediation	
<i>Recommendation</i> - The proponent be required to engage a site auditor accredited under the Contamination Land Management Act 1997 to oversee remediation and validation, and that a Part B Site Audit Statement and Site Audit Report be prepared and issued by the site auditor, to certify that the site is suitable for the proposed use.	The applicant would like to engage further with the EPA to reach an agree position around contamination management. As outlined in the EIS, some of the contaminated material will be managed under the Lower Campus Development Infrastructure Works authorisation, with the remainder (if applicable) to be managed under the SSD DA. The University would like to work with Council and the EPA to ensure that the process between the two project scopes is understood, and that any conditions that might be imposed on the SSD DA can be addressed, irrespective of which application the contamination is managed under.
<i>Recommendation</i> - The proponent be required to ensure proposed management plans for construction works and waste management are reviewed by the site auditor. The EPA recognises the potential that during demolition of existing structures and infrastructure, lead-based paint and asbestos (friable and cement matrix) may be encountered. And, notes the potential for: ▪ PCB contamination associated with the defunct electrical substation; and ▪ Site contamination related to the underground petroleum storage system and above ground storage tanks slated for removal from the site. The proponent should inform itself of the requirements of the 'Polychlorinated Biphenyl Chemical Control Order 1997' (made under the Environmentally Hazardous Chemical Act 1985), including the requirements in regard to keeping, conveying and disposing of any PCB material or PCB waste.	Refer to response above. The applicant would like to work with Council and the EPA to reach an agreed position around contamination management.
<i>Recommendation</i> - The proponent be required to undertake a detailed investigation following removal of the underground storage tank infrastructure and obtain a validation report in accordance with the requirements of the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2014.	The removal of the underground storage tank is currently being progressed as part of the Lower Campus Development Infrastructure Works package
<i>Recommendation</i> - The proponent be required to satisfy the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to Part 7 'asbestos waste'.	The applicant would accept this as a condition of consent.
<i>Recommendation</i> - The proponent be required to consult with SafeWork NSW concerning the handling of any asbestos waste that may be encountered during the course of the project.	The applicant would accept this as a condition of consent.
<i>Recommendation</i> - The proponent be required to ensure that it only keeps, conveys, disposes of any PCB material any PCB waste encountered during the course of the project in accordance with the requirements of the 'Polychlorinated Biphenyl Chemical Control Order 1997' (made under the Environmentally Hazardous Chemical Act 1985).	The applicant would accept this as a condition of consent.

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<i>Recommendation</i> - The proponent be required prior to commencing work: ■ To prepare and implement an appropriate procedure for identifying and dealing with finds of site contamination, including: - Asbestos containing material; - Lead-based paint; and - PCBs potentially associated with any old light fittings or de-commissioned electrical equipment. ■ To develop and implement site clean-up and remediation as necessary.	The applicant would accept this as a condition of consent, however it is considered that the procedure for identifying and dealing with contamination should be provided to the Certifier for verification.
Noise and Vibration	
<i>Recommendation</i> - The proponent be required to ensure all site preparation, bulk earthworks, construction and construction-related activities during standard construction hours as recommended in Table 1 Chapter 2 of the Interim Construction Noise Guidelines (INCG), July 2009.	The applicant proposes extended construction hours, as outlined at Section 3.8 of the EIS. As detailed in the Noise and Vibration Impact Assessment which was submitted at Appendix G of the EIS, the nearest residents are 200m from the site, and incorporating a nominal 15 dBA reduction for shielding from intervening buildings, the predicted LAeq noise levels were calculated to be 53 dBA during rock breaking (including a 5 dB penalty for impulsiveness) and 42 dBA during jackhammering, this is still 10 dB lower than the Outside Construction Hours Noise Management Level (NML) at this location of 63 dBA. At the residents 430m from the site (to the southeast), the corresponding NML was 53 dBA and the predicted levels due to rockbreaking were 46 dBA, 7 dB lower than the NML.
<i>Recommendation</i> – the proponent be required to schedule intra-day 'respite periods' for construction activities identified in the Interim Construction Noise Guidelines as being particularly annoying to noise sensitive receivers, including surrounding residents and the nearby hospital.	Respite periods are not considered to be necessary, as there are limited activities of this nature to be performed on site and management procedures for students, staff etc. are adopted through the works. The hospital is approximately 950m from the construction site. Based on distance attenuation, the noise levels would be 13.5 dB lower than at the nearest residents (200m away), or 7 dB lower than at the residents to the southeast (430m away). Given the low noise levels relative to the NMLs, placing further restrictions on the proponents seems unnecessary.
<i>Recommendation</i> – the proponent be required to ensure construction vehicles (including concrete agitator trucks) involved in site preparation, bulk earthworks, construction and construction-related activities do not arrive at the project site or in the surrounding residential precincts outside of approved construction hours.	These matters can be addressed as part of the detailed Construction Management Plan. A specific condition addressing this requirement is considered unnecessary.
<i>Recommendation</i> – the proponent be required to consider undertaking a safety risk assessment of site preparation, bulk earth works, construction and construction-related activities to determine whether it is practicable to use audible movement alarms of a type that would minimise the noise impact on surrounding noise sensitive receivers, without compromising safety.	The applicant would be willing to consider this prior to the commencement of construction.
Dust Control and Management	
<i>Recommendation</i> – the proponent be required to: ■ Minimise dust emissions on the site; and	These matters can be addressed as part of the detailed Construction Management Plan.

Issues Raised by Agencies	Proponent's Response
Prevent dust emissions from the site.	
OPERATIONAL PHASE	
Noise and Vibration Impacts	
<i>Recommendation</i> – the proponent be required to ensure that any noise emitted by mechanical plant or equipment installed and operated at the building: - Does not exceed the night time criteria of $L_{eq(night)}$ 37 dBA measured at the most affected residence or hospital; - Does not exhibit tonal characteristics of the type defined in Chapter 4 of the Industrial Noise Policy.	The applicant would be willing to accept this recommendation as a condition, however would request that it is amended to clarify that it relates to off-campus receivers, as follows: <i>The proponent be required to ensure that any noise emitted by mechanical plant or equipment installed and operated at the building:</i> - Does not exceed the night time criteria of $L_{eq(night)}$ 37 dBA measured at the most affected off-campus residence or hospital; - Does not exhibit tonal characteristics of the type defined in Chapter 4 of the Industrial Noise Policy.
<i>Recommendation</i> – the proponent be required to undertake a quantitative assessment of noise impacts associated with operation of the building together with design for feasible and reasonable noise impact avoidance and mitigation, including but not limited to: - Potential sleep disturbance impacts on surrounding residences and nearby hospitals; - Potential sleep disturbance impacts on surrounding residences and nearby hospitals from the use of amplified sound systems other than during 'day-time' hours, which are 7.00am – 6.00pm Monday to Saturday, and 8.00am to 6.00pm Sundays and public holidays. - Adequate design, selection and maintenance of amplified sound systems and noise generating mechanical services (especially air handling and equipment) and associated rooms and enclosures. - Noise compliance monitoring of mechanical services noise and amplified sound systems during commissioning so as to avoid unintended noise impacts; - Design of loading docks and waste collection areas to: - Avoid or minimise the activation of vehicle reversing alarms during use of those facilities, - Adequate noise shielding of surrounding noise sensitive receivers, especially residences from noise generated during activities associated with those facilities. Limiting the hours of operation of loading dock waste collection activities to 'day time' hours, being 7.00am to 6.00pm Monday to Saturday and 8.00am to 6.00pm Sundays and public holidays.	The applicant would accept these requirements as conditions of consent. The existing operations of the Io Myers Studio and Studio One utilise amplified sound systems within the above-ground buildings of relatively lightweight construction. Identical operations will now be conducted in an underground theatre space, which is inherently better designed with regard to airborne noise breakout. SLR identified that noise from both mechanical plant and breakout noise from the studio spaces would be controlled through conventional means. These control mechanisms (including rooms and enclosures) are currently being developed and detailed.
<i>Recommendation</i> - the proponent be required to undertake appropriate modelling to justify the nominated 15dBA reduction due to acoustic shielding offered by intervening buildings.	The proposed site is surrounded by multi-storey buildings in almost every direction. The northern part of the site will likely have reduced shielding to the east, however the receivers on Botany Street will be shielded by the large buildings on the other side of the road, while the hospital will gain a large reduction due to distance attenuation. On this basis, it is considered that the nominated reduction is justified.

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Radiation Control Act and Regulation	
<i>Recommendation</i> – the proponent be required to clarify whether or not regulated material is proposed to be stored or possessed at the new facilities.	Letters have been provided by the heads of the School of Chemistry and School of Chemical Engineering which confirm that regulated material (as defined by the <i>Radiation Control Act, 2013</i>) will not be stored in the proposed building. The Electron Microscope Unit (EMU) has confirmed that the EMU will be storing (and using) a sub-licenceable quantity of uranyl acetate in the proposed building, from the current sub-licenceable stock in the EMU in Building F10). This will not require a change to the University's Radiation Management License. The letters are provided at Attachment C.
Office of Environment and Heritage	
After reviewing the relevant documents, OEH's Greater Sydney Planning Team has concluded that the matter does not contain biodiversity, natural hazards or Aboriginal cultural heritage issues that require a formal OEH response. We have no further need to be involved in the assessment of this project	Noted.
Sydney Airport	
We have been contacted by Airservices to obtain a line of site drawing for the above property development. They currently have your preliminary plans but require the line of site one to complete their assessment.	The applicant has sought further clarification from Sydney Airports regarding the requested information, however no response has been received at 16/12/2016. The following approvals have been obtained / information has been submitted to Sydney Airports regarding the proposal: ▪ Building Envelope / Development has previously been approved (refer to Appendix V of the original SSD application) – SYD reference 16/0112; and ▪ Tower Crane presently under assessment – referred to Canberra following Multiplex confirmation of process and working heights on 15 September 2016 – SYD reference 16/0113.
Randwick City Council	
Section 94A Contributions plan	
<i>Exemption from payment of Section 94A contributions</i>	
The applicant is seeking an exemption from payment of Section 94A development contributions. The EIS (prepared by JBA) requests a full exemption from payment of a Section 94A contribution on the basis of the following statutory and merit based considerations: Statutory considerations: ▪ According to the applicants interpretation of the Randwick City Council Section 94A (s94A) Development	Randwick City Council's first section 94A Development Contributions Plan commenced on 2 July 2007. Under the Plan development contributions were discretionary, not mandatory. Categories of exemptions included public hospitals and works undertaken for, or on behalf of, a registered charity. UNSW is a charity registered with the Australian Tax Office. The Contributions Plan was reviewed and amended in 2015. The new Plan continues to allow Council to exercise its discretion in levying contributions. However the Plan amended the charity exemption so that only small scale works

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Contributions Plan 2015, "the payment of any contribution on this development is discretionary, and [...] the approval authority, in this case the Minister for Planning, while empowered to impose a condition requiring the payment of a monetary contribution is not required to under wither the EP&A Act or Council's Contributions Plan" (JBA, SSD 7518, p. 12); ■ Council should warrant a "merit-based exemption" if it is satisfied that development does not increase the demand for the categories of public facilities and services addressed in the S94A Plan. The applicant argues that as UNSW is a registered not-for-profit organisation, as well as an educational facility and a nominated charity, there are justifiable grounds for Council to grant a merit based exemption; ■ UNSW and the development has a public character, and will provide a number of material public benefits consistent with wider strategic planning objectives; ■ Section 13.3 of Council's Contributions Plan allows an applicant to seek an exemption from a development contribution, with Council to take into account: - (13.3.1) the extent to which the proposed development comprises or includes the provision, extension or augmentation of public amenities or public services that provide a public benefit, and/or - (13.3.2) whether the applicant is affected by any adverse financial circumstance which will impact on its ability to fund the payment of any level which is imposed. In this instance, the applicant argues that as the University is a public institution relying on government grants, donations, and community funding, the levying of a development contribution "would divert a portion of these public funds, which have been specifically provided for an educational service, to local services without any direct nexus to the impact on those services" (JBA, SSD 7518, p.13); ■ UNSW is not a developer and is a charitable not-for-profit public institution (and registered as such by the Australian Tax Office) which relies on significant grants, donations, and external funding to provide new facilities for both the UNSW community, and the wider community at large; ■ The levying of contributions on projects that are funded by external sources is simply diverting a portion of funds for an educational purpose to local services without any direct nexus to the development; ■ The payment of Development Contributions and levies would consume resources which should be devoted to the University's core business of teaching and research and the strategic benefits that would result from such a development; and UNSW, being an Australian university within the meaning of the Higher Education Act 2001, is recognised as the Crown by virtue of clause 226 of the EP&A Regulation. Council is therefore unable to impose a condition of consent (in this case, a development contribution) without the approval of the University or the Minister.	undertaken on, or on behalf of, a registered charity were to be considered – effectively excluding UNSW major projects from exemption consideration. The Schedule of Works was also amended so that expenditure within the Randwick Education and Health Strategic Centre was reduced from \$4 million for "public domain improvements" in the 2007 Plan to \$1 million for "town centre improvements to accommodate light rail" in the new Plan. The UNSW Kensington Campus and the Randwick Hospitals Campus are the core components of the Randwick Strategic Centre. Having regard to the two Contributions Plans mentioned above, the following major project determinations for the UNSW Kensington Campus are provided as examples where the Department has either reduced the 1% levy sought by Council or not imposed one: ■ MP 09-0163 Tyree Energy Technologies Building (new building): The Department reduced the contribution sought by Council and based it on the estimated increase in staff generated by the project; ■ MP 09-0075 Wallace Wurth Building (redevelopment): The Department reduced the contribution sought by Council and based it on the estimated increase in staff generated by the project; ■ SSD 12/5572 Mechanical and Manufacturing Engineering Building (redevelopment): The Department did not require a contribution on the basis that there was no increase in staff or students generated by the project; ■ SSD 5373 Materials Science and Engineering Building (new building): The Department reduced the contribution sought by Council and Council agreed that the reduced levy would be applied to public domain works in Barker Street; ■ SSD 6674 Biological Sciences Project (Stage 1 - new building and refurbishment of existing building): The Department reduced the contribution sought by Council and Council agreed it would be applied to public domain works and traffic lights in Botany Street (noting that traffic lights are no longer required and UNSW will seek to have this condition of approval rescinded); and ■ SSD 7370 Electrical Engineering Building (refurbishment): The Department did not require a contribution on the basis that there was no increase in staff or students generated by the project. The proposed Science and Engineering Building results in an increase of 33 permanent staff. With regards to the list above, and to ensure consistency in the application of Council's Contributions Plan, if the Department is of the mind to impose a condition requiring section 94 payments, a reduced contribution should be paid based on the minor increase in staff. Furthermore, since the commencement of Randwick City Council's first section 94A Development Contributions Plan in July 2007 the following major project determinations on the adjoining Randwick Hospitals Campus are provided as examples where the Department has not imposed a contributions levy and Randwick City Council has not sought one: ■ Randwick City Council DA/468/2007 Additions to Prince of Wales Medical Research Institute; ■ MP 08-0086 Neuroscience Research Precinct Concept Plan; ■ MP 08-0153 Neuroscience Research Precinct Stage 2;

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	■ MP 10-0096 Support Facilities for Sydney Children's Hospital; ■ MP 10-0131 Mental Health Intensive Care Unit; ■ SSD 5036 Comprehensive Cancer Care and Blood Disorder Centre; and ■ SSD 6180 Stage 2 Nelune Comprehensive Cancer Centre and Australian Advanced Treatment Centre. The above projects demonstrate that a new building on the UNSW Campus can be levied development contributions, but a new building on the Hospitals Campus is exempt, even if staff on the two campuses may be university and health professionals employed in similar research, teaching or administrative roles. The University considers this to be unreasonable and inequitable. UNSW and the Randwick Hospitals should both be exempt from the payment of development contributions. Pursuant to the above project approvals for both UNSW and the Randwick Hospitals, nearly \$4 million in development contributions has been paid by UNSW since 2007, whereas the Randwick Hospitals have paid nothing. There is little evidence of any public domain improvements around either the UNSW or Hospitals campuses. The limited footpath and tree planting improvements around the UNSW Campus undertaken to date are a result of works undertaken as conditions of consent in addition to the payment of section 94A levies. The University considers that there is no valid justification for UNSW to continue to pay contributions towards the provision of services and infrastructure within its primary area of influence i.e. the Randwick Strategic Centre, when the current Schedule of Works for that area is already overpaid by nearly \$3 million and no contributions have been levied from the remaining key stakeholder, the Randwick Hospitals. Further, the statement that <i>"As Council's Section 94A Plan is not nexus-based, there is no requirement for Council to provide additional or improved public facilities within, or in the proximity of the Randwick Education and Health Specialised Centre"</i> is considered to be incorrect. Item 3.5 in the Plan's Schedule of Works clearly identifies Council's obligation to undertake works in the Centre, and as pointed out above, these works have already been overpaid by nearly \$3 million. Similarly, Council's comment that <i>"with such a large increase of GFA in floorspace there will be an associated increase in demand for public works and infrastructure provided by Council"</i> is incorrect. The nature of the use is such that floor space is not directly related to the number of occupants, and there is no direct association between additional floorspace in this building and the demand for public works and infrastructure. The majority of the seven upper floors will be taken up with laboratory space which will have much lower staff/student to GFA ratios than other uses, such as commercial. The 33 additional permanent staff should be the basis for any calculation of increased demand and not the amount of floorspace being generated. Notwithstanding the above, if Council insists that its Contributions Plan is not nexus-based, the demand argument is irrelevant. Council also asserts that <i>"the University also operates as a business, providing education on a fee-for-service basis ..."</i>. As stated many times before, UNSW is a not-for-profit educational institution with primary functions of teaching and research. The University is as much a fee-for-service business as the nearby Prince of Wales Hospital and Royal Hospital for Women which charge hospital admission, consultation and specialist medical fees. Whilst

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	education and health institutions provide public facilities and services for a fee, they are not profit-driven businesses. Therefore, the arguments previously provided by UNSW as to why development contributions are inappropriate are still relevant. That is, the University: ■ Is a not-for-profit educational institution; ■ Is a registered charity with the Australian Tax Office; ■ Has Crown and Public Authority status; ■ Provides functions that are inherently of a public nature in the same way as the Randwick Hospitals; ■ Provides numerous facilities and services on Campus that are available to the Randwick community; ■ Is exempt from contributions under the provisions of Department of Planning Circular D6; ■ Should be afforded a consistent assessment approach from the Department.
Merit-based considerations	
As a result of the development, the EIS notes that there will be no increase in student numbers, and only 33 additional permanent staff on Campus	Council's comment is correct. The SEB building provides 215 permanent staff, which includes 33 additional research staff to be accommodated above and beyond existing staff profiles of the Schools / groups who are moving into the SEB. As outlined at Section 3.2.5 of the EIS, the overall student population of the Campus and building is not increasing as a result of the building. The SEB is expected to accommodate 900 Full Time Equivalent (FTE) students, including those undertaking postgraduate, honours and undergraduate studies. These user groups will utilise different areas of the building, as follows: 1. Research Students (post-graduate and honours students): These students may be allocated one of the 3m² workstations in the SEB for write-up space close to the laboratories in which they work. These students are currently accommodated in the Chemical Sciences Building (F10) which will be the subject of a future planning application for a major capital renewal and modernisation project. 2. Undergraduate Students enrolled in Chemical Engineering who use teaching laboratories on Level 1: These students are currently accommodated in the Chemical Sciences Building (F10) which will be the subject of a future planning application for a major capital renewal and modernisation project. 3. Undergraduate students enrolled in any UNSW wide course that get booked into one of the Centrally Allocated Teaching Spaces (CATS) on the basement and ground levels of the SEB: These rooms are part of a large portfolio of several hundred teaching spaces Campus-wide that are booked to accommodate an ever changing student, course and enrolment profile. The net effect of recent developments on Campus (demolitions, new buildings, re-purposing and reconfiguring of existing spaces) is that UNSW is approximately 1000 classrooms seats below where it was 3 years ago. To-date, this has been accommodated

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	through tighter timetabling. 4. Students enrolled in courses that currently use the IO Myers Studio and Studio 1 spaces: Students using these spaces currently utilise the existing facilities which are located at grade. With delivery of the new facilities within the SEB northern lower ground areas, the original buildings will be demolished, commensurate with the project scope for SEB. 5. All Students – informal spaces: The informal learning spaces provided in the basement and on Level 1 are available to all students on Campus. There is an almost insatiable demand for these type of spaces on Campus for students to work alone or on groups in-between classes.
In recent determinations of UNSW applications the Department has considered that the principle of reasonableness be applied to the University, as it is a not-for profit organisation. In this regard, the applicant argues that any contribution be based only on the demand generated by the 33 additional staff on the Campus and no additional students	As outlined above, there is no consistency in the way that section 94 contributions have been applied to recent University projects, however the most consistent approach has been to levy contributions based on any increase in student or staff numbers. On this basis, if the Department is of the mind to levy contributions, it should be based on the 33 additional staff that the proposal will generate.
UNSW provides a wide range of social, cultural, and recreational public benefits and contributions to Randwick LGA and its resident and worker population	Agreed. As noted in the EIS, the University provides a range of community facilities that are available to the general public, including: ▪ five child care centres; ▪ fitness and Aquatic Centre – including health and fitness programs, school sports programs and children's holiday activities; ▪ library; ▪ performance and rehearsal venues; ▪ a range of retail services e.g. food outlets including restaurant, cafes and take away outlets, banks, ATMs, post office, travel agency; ▪ Medibank Private outlet, pharmacy; ▪ medical centre, physiotherapy, optometry clinic (with free eye testing); ▪ Kingsford Legal Centre – pro bono advice and assistance; ▪ indigenous outreach programs to schools; and ▪ Village Green detention basin and aquifer recharge facility – substantially reduces stormwater discharge from the Campus to Council's stormwater system.
UNSW has paid nearly \$4 million in development contributions since 2007, but "there is little or no evidence of any public domain improvements around the University Campus or the hospital precinct".	Noted. Refer to response above.
The underlying purpose of Council's Section 94A Plan is to obtain funding from development activities that increase	Refer to response above. Item 3.5 in the Plan's Schedule of Works clearly identifies Council's obligation to undertake

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the demand for Council-provided public facilities or services, and applies across a wide range of development types, including residential, commercial, accommodation, educational and retail development. As per Section 94A(4) of the EP&A Act, Council's Contributions Plan is not required to demonstrate a connection between the development subject to the development consent and the expenditure of specific levies raised for public works and infrastructure that have been identified in the Plan. As Council's Section 94A Plan is not nexus-based, there is no requirement for Council to provide additional or improved public facilities within, or in the proximity of the Randwick Education and Specialised Health Centre, despite imposing a condition on the subject development for a S94A contribution;	works in the Centre, and as pointed out above, these works have already been overpaid by nearly \$3 million.
Council's Section 94A Plan applies a flat percentage-based contribution to all development over a nominated value (0.5% for developments with a capital investment value (CIV) of between \$100,001 - \$200,000, and 1% for all developments over \$200,000), with limited exceptions (for example, charities and seniors housing). As the contribution relates to CIV and not to calculations based on additional floor space provided, or demand generation rates based on increased use, Council does not accept the applicant's position that the levy should relate only to the 33 additional permanent staff on Campus, as this would result in an inconsistent and inequitable outcome when compared to the requirement under the Plan for families to contribute s94A funds for home alterations;	Refer to response above, section 94 contributions have continued to be allocated without any consistency. A levy based on increased student or staff numbers has been the most consistently applied rule. If the Department is of the mind to impose section 94 contributions, a payment based on the additional staff that the proposal will generate is considered to be most appropriate.
As noted above, there are limited exemptions whereby an applicant can request that Council consider waiving a levy under the Plan. Section 13.2 of the Plan outlines the relevant threshold criteria whereby Council will consider an exemption: the works proposed are "to be taken for charitable purposes", and "the development is of small scale". While the University may rely on government grants, donations, and community funds to provide new facilities for the University community, the University also operates as a business, providing education on a fee for service basis that Council does not consider meets the threshold of being a "charitable purpose", despite its classification with the ATO;	Refer to response above. UNSW is a not-for-profit educational institution with primary functions of teaching and research. The University is as much a fee-for-service business as are the nearby Prince of Wales Hospital and Royal Hospital for Women which charge hospital admission, consultation and specialist medical fees. Whilst education and health institutions provide public facilities and services for a fee, they are not profit-driven businesses, and should not be required to pay development contributions.
The development of a 10-storey building providing more than 18,700m ² of new education and research gross floor area is not considered to be "of a small scale", and as such it is reasonable to expect that with such a large increase of GFA there will be an associated increase in demand for public works and infrastructure provided by Council. As a result Council does not consider that the proposed development meets the criteria to be considered for an exemption under the S94A Plan	Refer to responses above. Irrespective of the scale of the development, it is unreasonable to levy the University the full contribution given the University's status as a registered charity, the contributions that have already been paid towards the Centre, the limited additional staff that will be accommodated by the proposal, and the community facilities already provided by the University.
Council has consistently considered that development by the University falls under the provisions of Council's Section 94A Contributions Plan. While noting that the University holds a prominent role in Randwick City, and that the large number of staff and students provide flow-on economic benefits to surrounding businesses and town centres, the University also places heavy demands on and also benefits from the public services and facilities provided by the Council. This issue has previously been raised with the Department of Planning and Environment on several occasions. Based on the points raised above, the Council therefore requests that any consent issued for the development should include a requirement consistent with the S94A Plan for a developer contribution of 1% of the Capital Investment Value (CIV) project cost of \$176,560,000, equating to \$1,765,600.	Refer to responses above. The University is strongly opposed to the full section 94 contribution being levied.
Randwick Comprehensive Development Control Plan (RDCP) 2013 - Part E2 Section 4 UNSW Kensington	
While the requirements of the RDCP 2013 UNSW may not hold strict applicability to State Significant Development	Noted. Despite RDCP 2013 not necessarily applying to the application, consideration has been given to the DCP at

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given the provisions of the SEPP (State and Regional Development), the Secretary's Environmental Assessment Requirements in this case specifically move to adopt the provisions of the RDCP within the 'Policies' requirements. The most relevant guideline available in informing development suitability on the UNSW site remains Part E2 of the RDCP 2013. In relation to parking and traffic, Council is of the view that the aims and objectives outlined within the RDCP hold strong relevance to informing appropriate development on the site and minimising consequent environmental impacts such as parking demand.	Section 4.1.1 of the EIS in relation to design excellence and built form, and at Section 4.6 in relation to car parking. The proposal to provide no additional parking aligns with the DCP's aims of making the Campus more sustainable by discouraging private vehicle use.
Built Form and Urban Design	
The proposal incorporates a building parapet height of approximately 40.64m (RL68.90- RL28.26), top of flue height to 45.54m (RL73.80 - RL28.26) and above the 24m height limited established in figure 5.8 of the RLEP 2012. The overall height of the Science and Engineering Building (SEB) is consistent with the size of the Material Sciences and Engineering Building (MSEB); the proposal adopts a similar vertical louvres design providing a consistent theme across both the SEB and MSEB. The combined length of the MSEB and SEB is significant and is relieved by projecting the SEB built form northward further than the MSEB over College Road. This encroachment over College Road is inconsistent with the building alignment control shown in Figure 5.7 in Part E2 of the RDCP 2013. Whilst the encroachment provides some relief to the combined length of both buildings, this is however only necessitated only by the significant bulk and scale of the development and connecting bridge over 7 levels. It is considered that relief of the considerable length of the combined buildings could be achieved by alternative methods of design and articulation and a reduction of building depth of the SEB is required. A reduction in building depth of SEB encroaching over College Road would permit a simpler transition of built form down to the smaller buildings further west of the site such as the Roundhouse. A reduction in depth would also maintain openness along College Road assisting its legibility as a pedestrian link and improving crime prevention. Such a reduction would also mean less overshadowing to the buildings located west of the site.	The building's mass is derived from the School's functional requirements and is the result of a rigorous design process. With respect to the building's bulk and scale, the floor plate has been developed to respond to the functional requirements of the School of Chemical Engineering and the School of Chemistry. As described in Part 4.1 of the Architectural SSD Report (refer to Appendix A of the SSD submission) the building's depth is derived from the proposed central service corridor typology and a systems approach to building design. The basic laboratory module is 3.3m wide and 11.7m long which is proportioned to best suit requirements of Chemical Engineering and Chemistry and working in a flexible, fume cupboard intensive research environment. The typical laboratory module is repeated out to the maximum practical length constrained by the site and the existing MSEB. The central service corridor typology, which represents leading practice in laboratory design, provides the highest possible level of flexibility, adaptability and serviceability. Under this typology, the laboratory and research core is enveloped by offices, meeting rooms and breakout spaces, providing an environmental layer for the laboratories which modulate temperature, direct light and air pressure. Whilst neither a reduction in depth or physical articulation can be achieved due to the building's internal functional floorplate requirements, like the MSEB, the façade design seeks to reduce the perceived mass of the building by introducing distinct segments or sections in the form, via façade treatments. The proposed building fits within a new framework that establishes a clear pedestrian connection from the lower Campus to the upper Campus. The new Light Rail Stop on Anzac Parade marks the starting point to College Walk that continues through the new development as a colonnade. Parallel to the colonnade, a 6m wide ramped walkway overcomes the level change from Racecourse Walk to Alumni Park providing an alternative, unsheltered route along College Walk which runs through to Anzac Parade. Accessing the teaching spaces directly from the colonnade establishes a strong relationship with the future context and helps to increase public amenity while the uncovered walkway enables a direct, uninterrupted pedestrian connection to the upper Campus.
Environmental Sustainable Development	
Sustainability is noted as a key element in the planning, design and development requirements of all new buildings on campus. However, the EIS notes that the application of a Green Star tool or similar tool and target rating is not appropriate for the proposed building, and instead proposes a "project specific" sustainability framework. The Ecologically Sustainable Development (ESD) Statement, prepared by ARUP in support of the EIS, states that the proposed development "incorporates a significant number of initiatives and principles identified in the various	Council has requested the application of a Green Star or similar tool and target rating to ensure excellence in sustainability is achieved on the Campus. Environmental sustainability is a guiding principle in UNSW's Strategy 2025 and it is the University's commitment to continuously improve environmental performance across all areas of the University – from the construction of new buildings, to waste disposal, goods and services that are purchased and the way resources are used and managed. These principles are embodied in UNSW's recently adopted Environmental Management Plan 2016-2018, which

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Green Star categories" and is capable of demonstrating 'Best Practice' against the Green Star 'Design & As Built' category. It is noted that 'Best Practice' is the lowest rating (4 stars) that can be attained under the Green Star Accreditation system for the 'Design & As Built' category. Given that UNSW has described itself as being "renowned for its quality of its graduates and its commitment to new and creative approaches to education and research" (JBA, SSD 7518, p. 5), demonstrating leadership in the local community through innovation and excellence in built form and sustainable design should be a priority.	now supersedes the EMP referred to in the DCP. The EMP seeks to minimise carbon emissions, promote sustainable travel and improve the University's environmental performance, with the goal of being the lowest in the GO8 for energy use per EFTSL and energy use per m2 GFA. One of the key strategies is to evaluate, implement and manage low or zero emission energy generation sources, such as solar thermal, photovoltaic, battery, cogeneration and tri-generation systems. UNSW pursues, and has delivered, environmental initiatives on a Global as well as a local scale. In 'order' of impact, UNSW invests Globally, Nationally and per Campus, to provide greater (and more Global) returns on investment. Such initiatives should be considered in conjunction with those delivered through individual capital projects. Initiatives such as UNSW's 'Energy Transition Leadership' is only one such investment with Global environmental impacts. Based on the above, the approach adopted in the Ecologically Sustainable Design Statement at Appendix J of the originally submitted EIS is preferred to the provisions in the DCP. Whilst the development has been assessed against the Green Star tool, and is capable of achieving 'Best Practice', no formal rating will be sought. This is consistent with the University's approach to other development on the Campus, noting that they do not typically pursue a formal Green Star accreditation, as well as the Secretary's Environmental Assessment Requirements. Consistent with the University's Global approach to sustainability, it is considered that dedicating resources to achieving a nominal rating would be diverting funds from the core purpose of the new SEB, which is to develop technologies which could ultimately result in improved sustainability outcomes with benefits which extend far beyond the University. Notwithstanding the above, the proposed SEB embraces the University's approach to sustainability, and the design incorporates a number of features and enhancements to improve its sustainability performance beyond 'deemed to comply' standards. More importantly, the building is part of the overarching Campus based solution for Energy Transition into the future. Of special note, the SEB endeavours to deliver the following features; ■ A general design aspiration to improve on the requirements of the NCC's Section J by 15% or more. ■ Upgrades to the façade specification that reduce thermal gain and loss. ■ High efficiency light fittings with sophisticated control systems having presence detection and daylight sensing capabilities. ■ High efficiency central chiller plant for the HVAC installation. ■ Rooftop solar PV providing 100kW of renewable energy to the building. ■ Use of groundwater geothermal energy in the building's cooling system. ■ Stormwater management to return stormwater from the building to the campus' underground aquifer.
Wind impacts	
It is noted that one of the key amenity issues arising from the design of the new building is the exacerbation of an existing wind tunnel in the main public access ways around Physical Sciences Precinct. Specifically, Appendix H	Refer to response above regarding ESD. It would be unfeasible and impractical to incorporate wind turbines in this development. As noted above, environmental sustainability is considered on a Campus-wide basis, with the UNSW

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notes: <i>"The addition of the new [Science and Engineering Building] might adversely affect the wind conditions in any outdoor retail areas ... [and] wind conditions above the criterion for walking comfort would be expected in the vicinity under the bridge link between the SEB and MSEB" (Mel Consulting, Environment Wind Assessment).</i> While Council acknowledges that mitigation measures can be incorporated into the building form factors to ameliorate some of the issues raised in the Wind Assessment (such as sealed entrances as proposed by Mel Consulting), there could be other opportunities for the built form to better respond to specific environmental challenges of the lower campus while also demonstrating the use of innovative technologies that have been developed by researchers on Campus. For example, there may be potential for experimental forms of wind turbines to be integrated into the building form in areas where wind flow modelling has indicated the likelihood of increased air movement. Similar approaches have been taken by other Australian universities, including ACU's 6- Star Daniel Mannix Building, and the University of Melbourne's Solar Power Project which included the retrofit of six buildings on campus with solar photovoltaic (PV) panel installations and a subsequent reduction on campus of 850 tonnes of carbon emissions per year. As a leader in sustainability research and education both in Australia and abroad, Council requests the application of a Green Star or similar tool and target rating to ensure excellence in sustainability is achieved on campus.	Environmental Management Plan 2016-2018 establishing the framework for sustainability across the University. The proposed building makes provision for the inclusion of PV panels, however due to the nature of the use, it is not practical to adopt most sustainability initiatives.
Parking Traffic and Access	
Section 5.10 in Council's DCP for the UNSW site entitled 'Campus 2020' specifies in some detail the transport and parking objectives and provisions for the UNSW campus which are relevant to the subject proposal. Of specific interest to Council is the consistency of the proposal with these provisions and the accompanying Transport Strategy for the UNSW site. Although the need to reduce car dependence and adopt a sustainable transport strategy is recognized, Council have significant concerns with the parking aspects of this proposal. The EIS notes that there is no parking proposed as part of the new development. As a result of the Lower Campus Infrastructure Works Package, and associated Part 5 approvals under the EP&A Act, there has been an overall reduction of 43 car parking spaces in the vicinity of the site. A failure to provide staff and visitor parking for the new building transfers additional parking demand onto High Street. While it is acknowledged that the University is seeking to encourage the uptake of public and active transport options, the loss of parking on site without providing adequate incentives and facilities for staff and other users to use alternative modes of transport does not result in an acceptable outcome. The Traffic Impact Statement prepared in support of the EIS notes that UNSW's 2014 Travel Survey found that 36.9% of staff travel to Campus by private vehicle. Based on the 33 additional permanent staff, this will generate demand for 12 additional spaces, with an overall shortfall of 27 spaces following the completion of the project (Appendix I, p. 53). There are also concerns that the nominated number of additional staff represents a very small	In its letter to the Department, Council has expressed concern that "... the number of staff and students continues to increase in association with floor area. This is placing continued ongoing pressure on the surrounding local streets to accommodate parking for staff and students, which is adversely impacting on local access and amenity". As noted above, the building's capacity is not directly linked to the proposed floor space. Further, Council's concerns regarding the pressure on local streets are not supported by the UNSW travel survey results and the continuing trends to public transport. The provisions for transport and parking on the Campus are set out on pages 77 to 82 of Part E of the Randwick Comprehensive DCP 2013. Within Figure 12 it is incumbent upon Randwick City Council to reach agreement with UNSW to introduce a parking control plan for local streets. The plan is intended to provide adequate parking for all residential users and their visitors on streets surrounding the Kensington Campus. However, no local street parking plan has ever been discussed with UNSW or prepared by Randwick City Council. UNSW disagrees with the statement that "... the loss of parking on site without providing adequate incentives and facilities for staff and other users to use alternative modes of transport does not result in an acceptable outcome". Over the years, the University has instituted a number of measures to reduce travel to and from the Campus by private car such as: Advocating public transport upgrades and new services;

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estimate when considered in the context of the significant floor area proposed as part of this application. In this respect, Council is concerned about the cumulative impact of significant developments on campus in recent years that have provided no parking and that over time the total number of car parking spaces on campus has reduced while the numbers of staff and students continues to increase in association with floor area. This is placing continued ongoing pressure on the surrounding local streets to accommodate parking for staff and students, which is adversely impacting on local access and amenity. Investment in public infrastructure works via Council's developer contributions funds can assist and promote sustainable transport use, such as through public transport, walking and cycling improvements, public domain upgrades and alternative approaches to parking. Council requests that any DA on campus is accompanied by an up to date audit of total parking spaces across campus, relative to the numbers of students and staff in order to assess parking demand and demonstrate suitable provision and/or suitable alternative specific measures to reduce car dependency.	■ Re-timetabling of lectures to spread peak travel times; ■ Reducing parking supply on the Campus; ■ Building new student accommodation on, or near the Campus; and ■ Managing parking charges and special event parking. As a result of these measures, since 2007 the number of staff and students travelling by private car has declined with a corresponding shift to more sustainable modes of transport – as evidenced in the UNSW Annual Travel Survey results. In 2016, 18.8% of survey respondents travelled to and from the Campus in private vehicles, however the majority (59.8%) travelled by public transport. When the percentages are extrapolated to the average daily Campus population, the results demonstrate a decrease from 10,552 daily private vehicle users in 2007 to 7,307 in 2016 and an increase from 14,113 daily public transport users in 2007 to 26,884 in 2016. These figures equate to an average decrease of 360 daily private vehicle users and an average increase of 1,419 public transport users each year since 2007. As stated earlier, there is little evidence of any public domain improvements around either the UNSW or Hospitals Campuses emanating from expenditure of section 94A contributions. It is therefore inconsistent for Council to argue that <i>"Investment in public infrastructure works via Council's developer contributions funds can assist and promote sustainable transport use, such as through public transport, walking and cycling improvements, public domain upgrades and alternative approaches to parking"</i> when the evidence suggests that very little has been done with existing funds. The University maintains that no additional parking is required to support the proposal, however parking and traffic congestion on local streets is not a matter for which UNSW has control or authority to act upon. A more collaborative approach from Council, combined with a local street parking control plan between Council and UNSW, would be helpful in reducing the demand for staff and student parking on streets surrounding the Campus.
For example, while Council notes the inclusion of 7 showers in the lower level basement of the new development to promote the use of sustainable modes of transport, we are concerned that the lack of storage facilities and additional bicycle parking does not result in an adequate end-of-trip facility that will sufficiently incentivise staff and students to commute to the building by way of bicycle or walking. Council requests that storage facilities (i.e. lockers or a secure storage room) and additional bicycle parking be included in the development.	As with vehicle parking, bicycle parking is considered from 'a whole of Campus' approach, rather than on a building-by-building basis. Bicycle parking and shower facilities are spread evenly across the Campus according to varying demand. A map showing the location of existing bicycle parking and showers on the Campus is provided at Attachment D. In addition, UNSW is currently considering a comprehensive bike hub facility adjacent to the Kensington Colleges with direct access from High Street that includes: ■ Secure parking for 167 bikes; ■ An overflow parking space; ■ Repair station; ■ Workshop; and

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Note: Staff numbers: While stated in the documentation that the proposal will result in 33 additional staff, there is no indication of the total number of existing staff within the existing buildings sought to be demolished or the total number of staff that will be operating within the SEB. Clarification on the operational details of the proposed SEB building should be provided.	▪ Showers. The showers proposed within the building are intended to supplement end of trip facilities already provided elsewhere on the Campus. In addition to the seven (7) showers provided within the basement, lockers are provided on each floor of the proposed Science and Engineering Building for use by staff. Refer to discussion above, a detailed discussion around student and staff numbers was provided at section 3.2.5 of the EIS.
Environmental Health Comments	
<i>Soils, Geotechnical and Groundwater - Land Contamination</i>	
Preliminary site contamination and detailed site investigations have been provided as part of the major project application. The report identifies Areas of Environmental Concern in 6.1 and potential contaminants of concern in Part 6.2 of Detailed Site Investigation (DSI) by Coffeys, with draft Remediation Action Plan (RAP) provided by Coffeys. Further investigations have been identified as being required post demolition of buildings and removal of hard surfaces. The DSI has confirmed the site can be made suitable for the intended use. As a result of the information submitted appropriate conditions have been included in this report.	Noted.
<i>Asbestos</i>	
Appropriate should be included from Building Compliance from Council's standard asbestos conditions.	Noted.
<i>Operational Noise Impacts Acoustics</i>	
An acoustic report titled UNSW Science & Engineering Building Secretary's Environmental Assessment Requirements are provided in Appendix G of the report has been prepared by SLR Consulting dated 21 July 2016 ref: 610.16372-R1 & 610.16372-R2 The potential noise issues associated with this development are considered to be: Noise from plant and equipment: ▪ Impact of operational noise ▪ Other internal residential receivers ▪ Construction The report confirms compliance with required noise criteria in daytime and night time. It should be noted the acoustic consultant advised the building and plant has not been selected and required attenuation has not been established but general guidance recommendations are provided on noise levels with further assessment to confirm preliminary noise criteria and design attenuation requirements.	As outlined below, the applicant is generally willing to accept Council's suggested conditions with respect to optional noise impacts.

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A validation acoustic assessment has been recommended as part of this proposal. It should be noted cumulative noise impacts of the operation of the university has not been established to ensure background creep is taken into consideration.	
Legionella Control	
Cooling Towers may be proposed. Suitable conditions to be imposed to address this issue.	Noted.
Storage & Handling of Dangerous Goods	
A report prepared by Core Engineering letter ref: 200079 has listed the threshold limits of quantities used and stored at the site and as such SEPP 33 is not considered to apply to the proposed development.	Noted.
Waste Management	
Operation of the facility will generate a variety of solid and liquid wastes. Disposal of hazardous wastes is managed through the Universities Disposal of Hazardous Waste Procedures and must comply with EPA requirements (Protection of the Environment Operations Act (POEO ACT), Protection of the Environment Operations Regulation) for the removal of hazardous substances, dangerous goods and biological hazardous waste to ensure compliance with regulatory requirements.	Noted.
UNSW have provided Preliminary Operational Waste Management Plan dated 26 November 2014 to address in house waste management, separation, storage and removal of wastes.	
Drainage Comments	
On site stormwater detention is not required for this development as the building is to drain to the Village Green detention basin in accordance with the Stormwater strategy for the site.	Noted.
Overland flow and site stormwater discharge will be collected by a 1050mm pipe that runs beneath the law building and discharges to the Village Green Detention Basin.	
Recommended Conditions of Consent	
Section 94A Development Contributions	
1. In accordance with Council's Section 94A Development Contributions Plan effective from 21 April 2015, based on the development cost of \$176,560,000 the following applicable monetary levy must be paid to Council: \$1,765,560.00. The levy must be paid in cash, bank cheque or by credit card prior to works being carried out for the proposed development. The development is subject to an index to reflect quarterly variations in the Consumer Price Index (CPI) from the date of Council's determination to the date of payment. Please contact Council on telephone 9399 0999 or 1300 722 542 for the indexed contribution amount prior to payment.	Refer to response above. The University is strongly opposed to the Department proposal of imposing the full 1% contribution.
To calculate the indexed levy, the following formula must be used:	

Issues Raised by Agencies	Proponent's Response
$IDC = ODC \times CP2/CP1$ Where: IDC = the indexed development cost ODC = the original development cost determined by the Council CP2 = the Consumer Price Index, All Groups, Sydney, as published by the ABS in respect of the quarter ending immediately prior to the date of payment CPI = the Consumer Price Index, All Groups, Sydney as published by the ABS in respect of the quarter ending immediately prior to the date of imposition of the condition requiring payment of the levy. Council's Section 94A Development Contribution Plans may be inspected at the Customer Service Centre, Administrative Centre, 30 Frances Street, Randwick or at www.randwick.nsw.gov.au.	
<i>Environmental Health Conditions</i>	
2. The land must be remediated to meet the relevant criteria in the National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 and the following requirements must be complied with: a) A NSW Environment Protection Authority (EPA) Accredited Site Auditor, accredited under the Contaminated Land Management Act 1997, must be appointed to assess the suitability of the site for its intended development and use. A Site Audit Statement and Summary Site Audit Report is to be submitted to Council which verifies that the land has been remediated and the site is suitable for the intended development and satisfies the relevant criteria in the NEPM 1999. Any requirements contained within an Environmental Management Plan (EMP) which forms part of the Site Audit Statement and Site Audit Report, form part of this consent and must be implemented accordingly. Council is required to be consulted with prior to the development of the EMP and any comments made by Council are required to be taken into consideration prior to finalising the EMP. b) The site remediation must be carried out to the satisfaction of the accredited Site Auditor and a Site Audit Statement and Summary Site Audit Report must be submitted to Council prior to: - A Crown construction certificate being issued for any building work (other than shoring work, piling work and retaining structures or other work which is necessary to carry out the remediation works). - Remediation works shall be carried out in accordance with the requirements of the Contaminated Land Management Act 1997, environmental planning instruments applying to the site, guidelines made by the NSW Environment Protection Authority (EPA) and NSW Planning & Infrastructure, Randwick City Council's Contaminated Land Policy 1999 and the Protection of the Environment Operations Act 1997. c) Should the remediation strategy including the 'capping' or 'containment' of any contaminated land, details are to be included in the Site Audit Statement (SAS) and Environmental Management Plan (EMP) to the satisfaction of the Site Auditor. Details of the SAS and EMP (including capping and containment of	Refer to response above. The applicant would like to engage further with the EPA to reach an agree position around contamination management. As outlined in the EIS, some of the contaminated material will be managed under the Lower Campus Development Infrastructure Works authorisation, with the remainder (if applicable) to be managed under the SSD DA. The University would like to work with Council and the EPA to ensure that the process between the two project scopes is understood, and that any conditions that might be imposed on the SSD DA can be addressed, irrespective of which application the contamination is managed under.

Issues Raised by Agencies	Proponent's Response
contaminated land) are also required to be included on the Certificate of Title for the subject land under the provisions of section 88 of the Conveyancing Act 1919. d) Fill material that is imported to the site must satisfy the requirements of the NSW Protection of the Environment Operations (Waste) Regulation 2005 and the NSW Environment Protection Authority (EPA) Waste Classification Guidelines (2008). Fill material must meet the relevant requirements for Virgin Excavated Natural Material (VENM) or be the subject of a (general or specific) Resource Recovery Exemption from the EPA. Details of the importation of fill and compliance with these requirements must be provided to the satisfaction of the Environmental Consultant and Site Auditor. e) A Site Remediation Management Plan must be prepared prior to the commencement of remediation works by a suitably qualified environmental consultant and be implemented throughout remediation works. The Site Remediation Management Plan shall include measures to address the following matters: - general site management, site security, barriers, traffic management and signage - hazard identification and control - worker health & safety, work zones and decontamination procedures - prevention of cross contamination - site drainage and dewatering - air and water quality monitoring - disposal of hazardous wastes - contingency plans and incident reporting - details of provisions for monitoring implementation of remediation works and persons/consultants responsible. A copy of the Site Remediation Management Plan is to be forwarded to Council prior to commencing remediation works. f) The works must not cause any environmental pollution, public nuisance or, result in an offence under the Protection of the Environment Operations Act 1997 or NSW Work Health & Safety Act 2011 and Regulations. g) Any new information which is identified during remediation, demolition or construction works that has the potential to alter previous conclusions about site contamination or the remediation strategy shall be notified to the Site Auditor and Council immediately in writing. The written concurrence of Council must be obtained prior to implementing any changes to the remediation action plan or strategies. The works shall not give rise to environmental pollution or public nuisance or, result in an offence under the Protection of the Environment Operations Act 1997 or Work Health and Safety Act 2011 & Regulations (2011).	

Issues Raised by Agencies	Proponent's Response
3. The applicant is to engage the services of a suitably qualified environmental consultant to respond to enquiries and complaints made by the community or Council in relation to contamination, remediation and construction site management matters.	The applicant would accept this as a condition of consent.
4. A specific contact number is to be made available for such enquires and complaints (including an after-hours emergency contact number) and a complaints register is to be maintained to record all such enquiries, complaints and actions taken in response to same, which is to be made available to Council officers upon request.	The applicant would accept this as a condition of consent.
5. Hazardous or intractable wastes arising from the demolition process being removed and disposed of in accordance with the requirements of WorkCover NSW and the Environment Protection Authority, and with the provisions of: - Work Health and Safety Act 2011; - Work Health and Safety Regulation 2011; - Protection Of the Environment Operations Act 1997 (NSW) and - Environment Protection Authority's Environmental Guidelines; Assessment Classification and Management of Liquid and Non Liquid Wastes (1999). - Other relevant EPA and WorkCover Guidelines	The applicant would accept this as a condition of consent.
6. The works shall not give rise to environmental pollution or public nuisance or, result in an offence under the Protection of the Environment Operations Act 1997 or Work Health and Safety Act 2011.	The applicant would accept this as a condition of consent.
7. All wastes shall be stored handled and disposed of in accordance with: - Protection of the Environment Operations Act 1997 (Waste Regulation) - Dangerous Goods Act - NSW Work Health And Safety Regulation 2011. - NSW EPA legislation and Guidelines - WorkCover Legislation and Guidelines - Sydney Water Requirements Details of compliance shall be provided to the Crown Certifier prior to a Crown construction certificate being issued.	The applicant would accept this as a condition of consent.
8. Warm water systems and/or Cooling Towers must be designed, installed and maintained in accordance with the requirement of the Public Health Act 1991 (Part 4 Microbial Control) and Regulations. The air handling system cooling tower must be designed, installed and operated in accordance with the relevant requirements of AS/NZS 3666.1 (2002), AS/NZS 3666.2 (2002) and AS/NZS 3666.3 (2000). Details of compliance must be provided with the Crown construction certificate. Waste water from cooling tower warm water systems are to be discharged to the sewer under a Trade Waste Agreement from Sydney Water.	The applicant would accept this as a condition of consent.

Issues Raised by Agencies	Proponent's Response
9. Cooling Towers, warm water systems and water cooling systems must be registered with the Council together with the payment of the approved fee, prior to Occupation Certificate being issued for the development, and the system/s are to be maintained and certified in accordance with the provisions of the Public Health Act 1991.	The applicant would accept this as a condition of consent.
<i>Noise Emission</i>	
The following conditions have been applied to ensure that noise emissions from the development satisfy legislative requirements and maintain reasonable levels of amenity to the area:	The definition of what implies 'offensive noise' is within the assessment scope of the local authority (represented by the officer undertaking the assessment). For the assessment of external noise, SLR has used the assessment procedures discussed in the NSW Industrial Noise Policy.
10. The proposed use of the premises and the operation of all plant and equipment shall not give rise to an 'offensive noise' as defined in the Protection of the Environment Operations Act 1997 and Regulations.	
11. In this regard, the operation of the premises and plant and equipment shall not give rise to a sound pressure level at any affected premises that exceeds the background (LA90), 15 min noise level, measured in the absence of the noise source/s under consideration by more than SdB(A). The source noise level shall be assessed as an LAeq, 15 min and adjusted in accordance with the NSW Environmental Protection Authority's Industrial Noise Policy 2000 and Environmental Noise Control Manual (sleep disturbance).	The criterion defined as LA90+5 dB is equivalent to the Industrial Noise Policy's intrusiveness criteria. This is already considered in SLR's Noise and Vibration Impact Assessment. Criteria for sleep arousal are defined from current guidelines since the Environmental Noise Control Manual has now been superseded. Compliance of external noise level criteria with the regulatory requirements will apply for noise sensitive receivers outside the UNSW Campus. For acoustic assessment within the UNSW Campus, this will be managed internally by the University.
12. The use of the premises and the operation of plant and equipment shall not give rise to the transmission of a vibration nuisance or damage to other premises.	Noted. This formed part of SLR's Noise and Vibration Impact Assessment provided at Appendix G of the originally submitted EIS.
13. A report shall be prepared by a suitably qualified acoustic consultant and shall be provided to the certifying authority confirming Crown construction certificate plans incorporate and comply with required attenuation measures specified for the project prior to a Crown construction certificate being issued.	The applicant would accept this as a condition of consent.
14. A report, prepared by a suitably qualified and experienced consultant in acoustics, shall be submitted to the Council prior to Crown Completion Certificate, which demonstrates and certifies that noise and vibration emissions from the development comply with the relevant provisions of the Protection of the Environment Operations Act 1997, NSW Environmental Protection Authority Noise Control Manual & Industrial Noise Policy and conditions of Council's approval, to the satisfaction of Council's Manager Environmental Health & Building Services.	The applicant would accept this as a condition of consent, however would request that the documentation be submitted to the Department of Planning and Environment, as per the proposed amendments to the condition below. <i>A report, prepared by a suitably qualified and experienced consultant in acoustics, shall be submitted to the Council Department of Planning and Environment prior to Crown Completion Certificate, which demonstrates and certifies that noise and vibration emissions from the development comply with the relevant provisions of the Protection of the Environment Operations Act 1997, NSW Environmental Protection Authority Noise Control Manual & Industrial Noise Policy and conditions of consent. Council's approval, to the satisfaction of Council's Manager Environmental Health & Building Services.</i>
<i>Pollution Control</i>	
The following conditions are applied to satisfy the relevant pollution control criteria and to maintain reasonable levels of health, safety and amenity to the locality:	The applicant would accept this as a condition of consent.
15. The use and operation of the premises shall not give rise to an environmental health or public nuisance and there are to be no emissions or discharges from the premises, which will give rise to a public nuisance or result in an offence under the Protection of the Environment Operations Act 1997 and Regulations.	
16. Future uses of retail areas shall where required apply for development consent prior to the commencement of use.	The proposal does not include any retail areas, and so this condition is not relevant to the development.

Issues Raised by Agencies	Proponent's Response
Engineering and Landscape Conditions	
Security Deposit Condition	
The following conditions are applied to provide adequate security against damage to Council's infrastructure: 17. The following damage I civil works security deposit requirement must be complied with, as security for making good any damage caused to the roadway, footway, verge or any public place; and as security for completing any public work; and for remedying any defect on such public works, in accordance with section 80A(6) of the <i>Environmental Planning and Assessment Act 1979</i>: - \$3000.00 Damage I Civil Works Security Deposit The damage/civil works security deposit may be provided by way of a cash, cheque or credit card payment and is refundable upon a satisfactory inspection by Council upon the completion of the civil works which confirms that there has been no damage to Council's infrastructure. The owner/builder is also requested to advise Council in writing and/or photographs of any signs of existing damage to the Council roadway, footway, or verge prior to the commencement of any building/demolition works. To obtain a refund of relevant deposits, a Security Deposit Refund Form is to be forwarded to Council's Director of City Services upon issuing of an occupation certificate or completion of the civil works.	The proposal does not include any works which interface with Council's public domain. As all works are well within the University Campus, and noting that the footpath at Gate 2 is the University's own footpath, it is considered that this condition is not relevant to the proposed development.
Electricity Substation	
18. The applicant must liaise with Ausgrid prior to commencement of any site works, to determine whether or not an electricity substation is required for the development. Any electricity substation required for the site as a consequence of this development shall be located within the site and be screened from view. The proposed location and elevation shall be shown on relevant construction plans.	The University operates on a private electricity network. On this basis, this condition is not relevant to the proposed development.
19. All building, plumbing and drainage work must be carried out in accordance with the requirements of the Sydney Water Corporation. The approved plans must be submitted to a Sydney Water Quick Check agent, to determine whether the development will affect Sydney Water's waste water and water mains, stormwater drains and/or easements, and if any further requirements need to be met. If suitable, the plans will be appropriately stamped. For details please refer to the Sydney Water web site at www.svdnewwater.com.au for: - Quick Check agents details - see Building and Developing then Quick Check and - Guidelines for Building Over/Adjacent to Sydney Water Assets – see Building and Development	It is considered that the conditions recommended by Sydney Water in their submission would adequately address this requirement. It is requested that Sydney Water's condition be imposed instead of Council's recommended condition.

Issues Raised by Agencies	Proponent's Response
then Building and Renovating, or telephone 13 20 92. The Crown Certifier must ensure that a Sydney Water Quick Check Agent has appropriately stamped the plans.	
Prior to any work commencing on the site	
20. Stormwater drainage plans have not been approved as part of this development consent Storm water runoff .from the proposed development site is to be managed in general accordance with the Stormwater Strategy prepared for UNSW by ANA Technical Services Pty Ltd dated 28/11/2005. Engineering calculations and plans with levels reduced to Australian Height Datum in relation to site drainage shall be submitted to and approved by the relevant certifying body prior to commencement of site construction works. The engineering calculations and plans must demonstrate compliance with the above referenced stormwater strategy. A copy of the engineering calculations and plans are to be forwarded to Council, prior to commencement of site works. The drawings and details shall include the following information: - A detailed drainage design supported by a catchment area plan, at a scale of 1:100 or as considered acceptable to the Council or an accredited certifier, and drainage calculations prepared in accordance with the Institution of Engineers publication, Australian Rainfall and Run-off, 1987 edition. - A layout of the proposed drainage system including pipe sizes, type, grade, length, invert levels, etc., dimensions and types of all drainage pipes and the connection into Council's stormwater system. - The separate catchment areas within the site, draining to each collection point or surface pit are to be classified into the following categories: - Roof areas - Paved areas - Grassed areas - Garden areas - Where buildings abut higher buildings and their roofs are "flushed in" to the higher wall, the area contributing must be taken as: the projected roof area of the lower building, plus one half of the area of the vertical wall abutting, for the purpose of determining the discharge from the lower roof. - Proposed finished surface levels and grades of car parks, internal driveways and access aisles which are to be related to Council's design alignment levels. - The details of any special features that will affect the drainage design e.g. the nature of the soil in the site and/or the presence of rock etc.	TTW completed the Stormwater Management Plan and Stormwater Drainage Plans in accordance with the UNSW Stormwater Strategy, AR&R (1987) and Randwick City Council guidelines (refer to Appendix K of the submitted EIS). The applicant is generally willing to accept recommended Condition 20, however it is considered that Conditions 20(d) and 20(e) are not applicable to the proposed development given that the proposed building does not abut any higher buildings, and that the development does not have any interface with Council's public domain which would require the development to align with Council's alignment levels.
21. The site stormwater drainage system is to be provided in accordance with the following requirements; - Generally all internal pipelines must be capable of discharging a 1 in 20 year storm flow. However the minimum pipe size for pipes that accept stormwater from a surface inlet pit must be 150mm diameter. The site must be graded to direct any surplus run-off (i.e. above the 1 in 20 year storm) to the proposed drainage (detention/infiltration) system. - Any required infiltration system, must be designed by a suitably qualified and experienced consultant using infiltration rates determined by the applicant's geotechnical engineer or other appropriately qualified consultant. The location and design of the infiltration system, (detention/infiltration system), must not adversely impact on adjacent footings/foundations/structural elements. The applicant's geotechnical	The applicant is generally willing to accept recommended Condition 21, however would request that the wording 'where relevant' be incorporated into the condition to allow for a merit based assessment by the Certifier. Further, it is considered that several of these conditions (eg. 21(b), (c), (d) and (f)) are not applicable to the proposed development given that the development will discharge to an existing Campus based infiltration system. The capacity of the system has been tested to ensure that it can accommodate the proposal, however it is an existing system, and therefore the applicant cannot verify that it complies with the Council's current codes and policies.

Issues Raised by Agencies	Proponent's Response
engineer shall certify that the base of any infiltration system is located sufficiently above the ground water table such that the operation of the infiltration system will not be compromised by any potential future fluctuations in the water table. The referenced certification must be provided to the relevant certifying body prior to the commencement of site construction works. c) Determination of the required cumulative storage (in the on-site detention and/or infiltration system) must be calculated by the mass curve technique as detailed in Technical Note 11 Chapter 14 of the Australian Rainfall and Run-off Volume 11 1987 Edition. d) Infiltration systems/Absorption Trenches must be designed and constructed generally in accordance with "Section 8.5 ABSORPTION TRENCHES" of Randwick City Council's Private Stormwater Code. e) Should a pump system be required to drain any portion of the site the system must be designed with two pumps connected in parallel (with each pump being capable of discharging at the required discharge rate) and connected to a control board so that each pump will operate alternatively. The pump wet well is required to be sized for the 1 in 100 year 1 2 hour storm assuming both pumps are not working. All pump-out water must pass through a stilling pit prior to being discharged by gravity to the kerb and gutter Pump-out systems must be designed by a suitably qualified and experienced hydraulic consultant/engineer and the pump-out system designed and constructed generally in accordance with Council's Stormwater Code. f) A sediment/silt arrester pit must be provided prior to stormwater discharging into any required absorption/infiltration system. The sediment/silt arrester pit shall be constructed in accordance with the following requirements: - The base of the pit located a minimum 300mm under the invert level of the outlet pipe. - The pit constructed from cast in-situ concrete¹ precast concrete or double brick. - A minimum of 4 x 90 mm diameter weep holes located in the walls of the pit at the floor level with a suitable geotextile material with a high filtration rating located over the weep holes. - A galvanised heavy-duty screen located over the outlet pipe/s (Mascot GMS multipurpose filter screen or equivalent). - The grate being a galvanised heavy-duty grate that has a provision for a child proof fastening system. - A child proof and corrosion resistant fastening system provided for the access grate (e.g. spring loaded j-bolts or similar). - A sign adjacent to the pit stating: "This sediment/silt arrester pit shall be regularly inspected and cleaned." Note: Sketch details of a standard sediment/silt arrester pit may be obtained from Council's Drainage Engineer.	

Issues Raised by Agencies	Proponent's Response
Seepage/ Groundwater	
22. Prior to the issuing of a Crown Construction Certificate a report must be obtained from a qualified, experienced Hydro-geological Engineer, which provides an assessment of the site and the potential impact of groundwater and the water table upon the development, prior to commencement of site works to the satisfaction of the Crown Certifier. The report must confirm whether or not the site is or may be affected by groundwater or fluctuating water table and the report must include details of the measures to be implemented to effectively manage any groundwater	The applicant would accept this as a condition of consent.
23. Where the site is affected by groundwater or fluctuating water table (including during the course of construction), the following requirements must be satisfied: a) Groundwater and subsoil drainage must not be connected or discharged to the stormwater system or to Council's street gutter or drainage system, unless specific written approval has been obtained from Council beforehand, and b) Groundwater and sub-soil drainage must be restricted from entering the basement level/s and the stormwater drainage system, by tanking and waterproofing the basement areas of the building, and c) Adequate provisions must be made for the groundwater to drain around the basement level/s and ensure that the basement will not impede the movement of the ground water through the development site, and d) Details of the proposed methods of managing groundwater, tanking and waterproofing must be prepared by a suitably qualified and experienced Hydro-geological Engineer and be submitted to and approved by the relevant crown certifying authority, prior to issuing the crown construction certificate.	The applicant would accept this as a condition of consent. As outlined in the Geotechnical Investigation Report prepared by Coffey (refer to Appendix E of the submitted EIS) testing revealed groundwater at a depth of approximately 5.6m below ground level (i.e. approximately 22.8m to 23.4m AHD). The assessment notes that whilst the depth of the basement has been limited (to approximately 5.58m, or RL 24.12m AHD) excavations that penetrate below the water table should be appropriately shored or retained. Coffey conclude that dewatering in the sands may be required for basement and footing excavation and provides recommendations for managing dewatering.
Flooding	
24. The 1 %AEP (1 in 100year) flood level must be determined for the subject development site. Any openings into the basement area or ground floor level of the building shall be provided at a minimum of 0.5 m above the determined 1% AEP flood or suitably protected up to this level.	TTW completed the Stormwater Management Plan and Stormwater Drainage Plans in accordance with the UNSW Stormwater Strategy, AR&R (1987) and Randwick City Council guidelines (refer to Appendix K of the submitted EIS). As outlined in the report, the site does not lie within the 1% AEP flood zone.
Construction Traffic Management	
25. A detailed Construction Site Traffic Management Plan must be submitted to and approved by Council, prior to commencement of any site work. The Construction Site Traffic Management Plan must be prepared by a suitably qualified person and must include the following details, to the satisfaction of Council: - A description of the demolition, excavation and construction works - A site plan/s showing the site, roads, footpaths, site access points and vehicular movements - Any proposed road and/or footpath closures - Proposed site access locations for personnel, deliveries and materials. - Size, type and estimated number of vehicular movements (including removal of excavated	The applicant would accept a condition of consent requiring the preparation of a CTMP prior to the issue of a section 109R Certificate. However, to avoid the need to consult with multiple parties, the applicant requests that the CTMP be developed in consultation with Transport for NSW's CBD Coordination Office, and approved by the Principal Certifying Authority, with a copy to be issued to RMS and Council for information, as per Transport for NSW's suggested conditions of consent.

Issues Raised by Agencies	Proponent's Response
- materials, delivery of materials and concrete to the site) - Provision for loading and unloading of goods and materials - Impacts of the work and vehicular movements on the road network, traffic and pedestrians - Proposed hours of construction related activities and vehicular movements to and from the site - Current/proposed approvals from other Agencies and Authorities (including NSW Roads & Traffic Authority, Police and State Transit Authority) - Any activities proposed to be located or impact upon Council's road, footways or any public place - Measures to maintain public safety and convenience	
Public Utilities	
26. A public utility impact assessment must be carried out on all public utility services located on the site, roadway, nature strip, footpath, public reserve or any public areas associated with and / or adjacent to the building works. The assessment should include relevant information from public utility authorities and exploratory trenching and pot-holing, if necessary, to determine the position and level of service. Documentary evidence from the relevant public utility authorities confirming that their requirements have been or are able to be satisfied, must be submitted to the crown certifier prior to the commencement of any demolition, excavation or building works.	The subject site is wholly within the Campus area and is utilising Campus private networks and infrastructure. Further, the utilities within the lower Campus were recently upgraded as part of the Lower Campus Development Infrastructure Works package to accommodate future development within the Campus, including the proposed Science and Engineering Building. No services upgrades or diversions are proposed as part of the proposed development, and so this condition is considered unnecessary.
27. The owner/builder must make the necessary arrangements and meet the full cost for telecommunication companies, gas providers, Ausgrid, Sydney Water and other service authorities to adjust, repair or relocate their services as required.	Refer to response above.
Landscaping & Environmental amenity:	
28. Detailed landscape drawings and specifications must be submitted to, and approved by, the relevant certifying body, prior to the commencement of site construction works. The landscape drawings and specifications are to be prepared by a qualified Landscape Architect who is eligible for membership with the Australian Institute of Landscape Architects (AILA). The documentation shall include: a) Planting plans which clearly indicate the location of all proposed planting, with all species to be drawn at their mature size. b) A planting schedule which includes the quantity of all species proposed. c) Position of existing and proposed site services including water, gas, electricity, sewer, stormwater, etc. d) Sectional elevations through the site showing the existing and proposed groundlines, building elevations, and mature height of proposed planting. e) All planter boxes and garden beds constructed on slab must have a minimum soil depth of 600mm and all lawn areas must have a minimum soil depth of 300mm. f) In order to reduce the amount of stormwater generated by the site, as well as to recharge groundwater supplies, porous paving shall be used for all hard surfacing not over basement, where possible. g) Location of easements within the site and upon adjacent sites (if any). h) To ensure satisfactory maintenance of the landscaped areas, an automatic drip irrigation system shall be installed throughout all planted areas (excluding turf). The system shall be connected to the sites	The Landscape Plan and Report provided as Appendix R to the EIS identifies limited landscaping, comprising turf and paving, together with limited civil works such as kerb and gutter etc. As such, the works do not warrant a qualified Landscape Architect to design and document, and this condition is considered unnecessary. The proposed landscape solution is provided as an interim measure, with UNSW planning for a future project to provide a unified design approach to Alumni Park, beyond the scope of the current application.

Issues Raised by Agencies	Proponent's Response
rainwater tanks, with backup connection to the mains supply to all current Sydney Water requirements. i) Any substation required shall be screened from view. The proposed location, elevation and screening method shall be shown. j) All detention tanks and below ground storm water infiltration systems located within the landscaped areas shall have a minimum soil cover of 600mm to ensure sufficient soil depth for the establishment of landscaping.	
29. The relevant certifying body must ensure that a professional Arborist who holds a minimum of AQF Level 5 in Arboriculture has been engaged for the duration of works for the purpose of establishing, monitoring and implementing Tree Protection Zones or Tree Protection Measures as necessary, as well as performing or supervising any works that may have an impact on those trees listed for retention, with all site staff to comply with the instruction given by the 'site Arborist'.	The applicant would accept this as a condition of consent.
During Construction Works	
<i>Stormwater Drainage</i>	
30. Any required dewatering must be monitored by the consulting Engineer/s to the satisfaction of the principal certifying authority and documentary evidence of compliance with the relevant conditions of consent and dewatering requirements must be provided to the principal certifying authority and the Council. The site conditions and fluctuations in the water table are to be reviewed by the consulting Engineer prior to and during the excavation/construction process, to ensure the suitability of the excavation and dewatering process and compliance with Council's conditions.	The applicant would accept this as a condition of consent, however would request that the condition be reworded, as follows: <i>"Dewatering of the site shall be in line with a Dewatering Management Plan, prepared by suitably qualified person (Engineer). The dewatering plan is to illustrate compliance with the relevant conditions of consent and statutory guidelines and shall be provided to the certifying authority."</i>
<i>Tree Removals</i>	
31. Approval is granted for removal of those trees identified for removal in the Arboricultural Impact Assessment prepared by The Ents Tree Consultancy dated 1 August 2016.	The applicant would accept this as a condition of consent
<i>Pruning</i>	
32. Permission is granted for pruning should it be necessary in order to avoid damage to the trees listed for retention below, or, for clearances reasons, and must be minimal and selective, and performed by the site Arborist, to the requirements of Australian Standard AS 4373-2007 'Pruning of Amenity Trees,' and NSW Work Cover Code of Practice for the Amenity Tree Industry (1998).	The applicant would accept this as a condition of consent.
<i>Protection of Significant Trees</i>	
33. Trees identified for retention in the Arborists Report, are to be protected and retained as part of the proposed works in accordance with the tree protection recommendations included in the Arboricultural Impact Assessment prepared by The Ents Tree Consultancy dated 1 August 2016.	The applicant would accept this as a condition of consent.
<i>Stormwater Drainage</i>	
34. Any required dewatering must be monitored by the consulting Engineer/s to the satisfaction of the crown certifier and documentary evidence of compliance with the relevant conditions of consent and dewatering requirements must be provided to the crown certifier and the Council.	This condition duplicates proposed Condition 30, and is considered unnecessary.

Issues Raised by Agencies	Proponent's Response
The site conditions and fluctuations in the water table are to be reviewed by the consulting Engineer prior to and during the excavation/construction process, to ensure the suitability of the excavation and dewatering process and compliance with Council's conditions.	
<i>Waste Management</i>	
35. Waste Management provisions shall be implemented in general accordance with the Waste Management Plan submitted with the application.	The applicant would accept this as a condition of consent.
Prior to Occupation of the Building Premises	
36. The owner/developer must meet the full cost for Council or a Council approved contractor to repair/replace any damaged sections of Council's footpath, kerb & gutter, nature strip etc. which are due to building works being carried out at the above site. This includes the removal of cement slurry from Council's footpath and roadway.	Refer to response above. The proposal does not include any works which interface with Council's public domain. As all works are well within the University Campus, and noting that the footpath at Gate 2 is the University's own footpath, it is considered that this condition is not relevant to the proposed development.
37. All external civil work to be carried out on Council property (including the installation and repair of roads, footpaths, vehicular crossings, kerb and guttering and drainage works), must be carried out in accordance with Council's Policy for "Vehicular Access and Road and Drainage Works" and the following requirements: a) All work on Council land must be carried out by Council, unless specific written approval has been obtained from Council to use non-Council contractors. b) Details of the proposed civil works to be carried out on Council land must be submitted to Council in a Pre-paid Works Application Form, prior to an occupation certificate being issued for the development, together with payment of the relevant fees. c) If it is proposed to use non-Council contractors to carry out the civil works on Council land, the work must not commence until the written approval has been obtained from Council and the work must be carried out in accordance with the conditions of consent, Council's design details and payment of a Council design and supervision fee. d) The civil works must be completed in accordance with Council's conditions of consent and approved design and construction documentation, prior to occupation of the development, or as otherwise approved by Council in writing.	Refer to response above. The development site is wholly contained within the Campus and does not directly adjoin Council property or public domain.
<i>Sydney Water Requirements</i>	
38. A Section 73 Compliance Certificate, under the Sydney Water Act 1994 must be obtained from Sydney Water Corporation. An Application for a Section 73 Certificate must be made through an authorised Water Servicing Coordinator. For details, please refer to the Sydney Water web site www.sydneywater.com.au > Building and developing > Developing your Land > Water Servicing Coordinator or telephone 13 20 92. Please make early contact with the Water Servicing Co-ordinator, as building of water/sewer extensions may take some time and may impact on other services and building, driveway or landscape design. The Section 73 Certificate must be submitted to the relevant certifying body prior to occupation of the development.	It is considered that the condition recommended by Sydney Water in their submissions would adequately address this requirement. It is requested that Sydney Water's condition be imposed instead of Council's recommended condition.
<i>Stormwater Drainage</i>	

Issues Raised by Agencies	Proponent's Response
39. Prior to the issuing of a Crown Completion Certificate a works-as-executed drainage plan prepared by a registered surveyor and approved by a suitably qualified and experienced hydraulic consultant/engineer must be forwarded to the Crown certifier and the Council. The works-as-executed plan must include the following details (as applicable): - Finished site contours at 0.2 metre intervals; - The location, diameter, gradient and material (i.e. PVC, RC etc.) of all stormwater pipes; - Details of any pumping systems installed (including wet well volumes).	The applicant would accept this as a condition of consent.
40. Prior to the issuing of a Crown Completion Certificate the applicant shall submit to the Crown certifier (PCA) and Council, certification from a suitably qualified and experienced Hydraulic Engineer, which confirms that the design and construction of the stormwater drainage system complies with the Building Code of Australia, Australian Standard AS3500.3:2003 (Plumbing & Drainage- Stormwater Drainage) and conditions of this development consent. The certification must be provided following inspection/s of the site stormwater drainage system by the Hydraulic Engineers to the satisfaction of the PCA.	The applicant would accept this as a condition of consent.
41. Prior to the issuing of a Crown Completion Certificate the applicant shall submit to the Crown certifier (PCA) and Council certification from a suitably qualified and experienced professional Engineer, to the satisfaction of the Crown certifier confirming that the basement tanking/waterproofing and any sub-soil drainage systems (as applicable) have been provided in accordance with the conditions of consent and relevant Standards.	The applicant would accept this as a condition of consent.
<i>Landscaping</i>	
42. Documentary evidence is to be obtained from a qualified Landscape Architect, and submitted to the relevant certifying body, with a copy forwarded to Council, prior to the issuing of a final Crown Completion Certificate, which confirms that the landscaping has been completed in accordance with the approved plans and relevant conditions of consent.	As noted above, this condition is considered unnecessary based on the nature and extent of landscaping works that are proposed.

Issues Raised by Community	Proponent's Response
Glen Harper (Public submission1)	
I raise concern that the proposed bulk, which has this new Science and Engineering Building projecting past the line of the adjoining vertical louvered building, is an appropriate built form/urban design solution as the proposal is identical in detail to its neighbour- the Material Science and Engineering Building. So what are we to make of this step in wall line and the new north-east corner? While little to no explanation is given as to the justification of this arrangement, the strategy seems ill-considered in terms of promoting a strong urban design led campus especially if the intention is to demonstrate how the U NSW is to improve its sequence of public open spaces: as a sequence defined by a distinct figural spaces. All too often the urban design order is weakened by 'object buildings'.	The building form and size is directly related to the functionality of the building and the desire to extend the existing Material Sciences building. The laboratory modules for Chemistry and Chemical Engineering research require an overall length which is longer than the material sciences types in MSEB. This has informed the building geometry. The various existing public open spaces along College Walk differ greatly in size and scale. The proposed development in the context of the Alumni Park seeks to frame the edges of the new park whilst maintaining a clear separation between the student accommodation and the academic buildings.
Matthew Gee Kwun (Public submission 2)	
Consider introducing a pedestrian bridge connecting the new Material Science and Engineering Building with the Business School Building	The suggested pedestrian bridge is not within the scope of the proposed development.
Speed humps on roads both behind Business School and road parallel to High Street coming from Gate 2, that were previously removed as result of New Applied Science Building construction and redevelopment of Gate 2, should be put back. The speed humps provide a landmark for navigation for visually impaired students	The speed humps identified in the submission are outside of the project area, and are not part of the SSD.
Ensure the building is fitted with tactile indicator strips/brail labels and elevators with audio assistance for visually impaired students.	The building shall comply with the relevant building codes and standards in relation to equitable access.
Consider reuse of some demolished materials in the new building	The demolition which forms part of the SSD application will occur at the completion of the new building works. This restricts the ability to reuse demolished materials in the new building.
Consider use of laminated glass to reduce the risk of glass cancellations in which Mathews Building	The building is subject to a wind study assessment and glazing shall comply with the relevant glazing codes and standards, verified by a Facade Engineer.
Consider offsetting any tree loss as a result of the proposed construction.	Tree replacement is not presently sought, as UNSW is looking to undertake a (separate) landscape project which addresses Alumni Park holistically and integrates with access to the future light rail and key connections through the lower Campus.