

Response to Submissions

SSD 5373



Issue Raised by Agency	Proponent's Response
Department of Planning and Infrastructure (also addressed in detail as part of Preferred Project Report document proper)	
Further details regarding assessment of contamination on the site	As detailed at Section 2.3 of the Response to Submissions Report and Appendix E , Coffey has prepared a Supplementary Environmental Assessment. Following a review of available desktop data, observations made during fieldwork and an assessment of laboratory analytical data, Coffey has concluded that the site is suitable for the proposed development and the use of the building for educational purposes.
Further justification regarding the loss of car parking, including detailed breakdown of car parking provided on the campus and the recent changes to the car parking provided on the campus as part of recent developments, including visual illustration of the locations of the car parking within the campus prior to the recent developments and after the recent development.	A visual illustration of the car parking within the campus prior to and after recent developments is provided at Appendix D and Figures 6 and 7 of the Response to Submissions Report. Further, detailed justification around the proposed parking arrangements is provided below, and at Section 2.2 of the Response to Submissions Report.
Consideration of changes to minimise the bulk and scale of the building and to address the uniformity in the design of the facades.	As detailed at Section 2.1.2 of the Response to Submissions Report, the building's mass is derived from the School's functional requirements and is the result of a rigorous competitive design process. With respect to the building's bulk and scale, the building's depth is largely the result of the proposed central service typology. This 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 a habitable 'skin' containing offices, meeting rooms and breakout spaces. This then creates an environmental 'cocoon' for the laboratories, which modulate temperature, direct light and air pressure. The proposed height of the building will provide additional growth space for the School and other teaching and research units, to utilise and help to consolidate numerous out-dated facilities marked for demolition to make way for the new Alumni Park. The new Alumni Park will provide a recreation space for staff and students, as well as providing a separation between residential developments on High Street and academic uses in the centre of the Campus. Notwithstanding this, steps have been taken to address the perceived mass of the building and the uniformity of the building's facades through a revised façade design. Whilst physical articulation cannot be achieved due to the building's internal functional floorplate requirements, in response to the issues raised, the façade design has been amended to reduce the perceived mass of the building and introduce distinct segments or sections in the form, via façade treatments. As shown at Figures 4 and 5 of the Response to Submissions report, by increasing the articulation of the façade through a clearer transition between the blade types, the monolithic appearance of the building has been minimised. To further enhance this effect, the number of blade profiles has increased from 1 to 4. The new profiles project an equal distance from the façade presenting a consistent chamfered end profile that helps to unify the discreet sections along the elevations.

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Randwick City Council	
UNSW Kensington Campus DCP – Campus 2020	
While the requirements of the UNSW DCP may not hold strict applicability to State Significant Development through means of the SEPP, the DGR's in this case specifically move to adopt the provisions of the DCP within the 'Policies, Guidelines and Planning Agreements' requirements.	The University notes that despite the DGRs, development controls plans are not a matter for consideration in the assessment of State Significant Development Development Applications by virtue of clause 11 of State and Regional Development SEPP, which states that <i>'Development control plans...do not apply to...State significant development'</i>. Further, recent legislative reform seeks to rightfully enforce DCPs as guiding documents, rather than quasi development standards. The <i>Environmental Planning and Assessment Act 1979</i> (as amended) sets out the means by which a consent authority is to apply a DCP in the assessment of an application, including: ▪ The main purpose of a DCP is to provide guidance and to facilitate development that is permissible; ▪ DCP provisions are not statutory requirements; ▪ Where a proposal complies with the standards of a DCP, the consent authority is not to require more onerous standards; ▪ If a proposal does not comply with the standards of a DCP, the consent authority is to be flexible in applying those standards and is to allow reasonable alternative solutions that achieve the objects of those standards; and ▪ The consent authority can only consider DCP provisions in connection with the assessment of a particular DA. It cannot consider how the DCP has been applied in the past or how it may be applied in the future. This is intended to prevent consent authorities from arguing that a particular DA may create an undesirable precedent. As outlined below, the proposed development is consistent with the building objectives of DCP 2020. In summary, the proposed development will: ▪ Represent design excellence, as demonstrated through the design competition process and involvement of the Campus Design Advisory Panel (CDAP); ▪ Provide for future growth, flexibility and adaptation through the provision of additional shell space, consistent with the desire to adopt a 'whole-of-lifecycle' approach to buildings; ▪ Contribute to the overall Campus built form by emphasising the academic spine through the centre of the Campus, and enabling the construction of Alumni Park; ▪ Adopt an orientation that is appropriate to the proposed research and laboratory use; and ▪ Provide an activated ground plane, with a range of teaching, retail and circulation spaces which will activate the building and surrounding public domain. Whilst DCP 2020 is not applicable to the proposed development, the proposal is also consistent with the recently gazetted Randwick LEP 2012 (refer to Section 2.7). Randwick LEP 2012 represents the most recent (and legally enforceable) planning instrument for the site. Whilst the new LEP provides a height limit at the perimeter of the Campus to ensure an appropriate interface with the public domain, it does not specify a height control for the centre of the Campus. This approach is supported by Council's other strategic documents, including the Randwick Education and Health Specialised Centre Precinct Plan, which seeks to retain a height of 14-24m for buildings located on Campus perimeter, whilst allowing for flexible heights in central areas subject to demonstrating design excellence.
The most relevant guidelines available in informing development suitability on the UNSW site remains UNSW DCP. The DCP remains in force and Council's Draft Comprehensive DCP, currently in exhibition phase, proposes the continued application of the current controls.	
Council is of the view that the aims and objectives outlined within the DCP hold strong relevance to informing appropriate development on the site and minimising consequent environmental impacts. As such, the DCP is a central matter for consideration.	

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Height	
Section 5.8 of the DCP outlines a maximum wall height of 24m in this part of the Campus.	As noted above, the provisions of DCP 2020 are not a relevant matter for consideration and the proposed height is consistent with the recently gazetted Randwick LEP 2012.
The proposal seeks a building with a wall height of over 45m and overall height of 48m. As such, the building is proposed to be over 20m in excess of the UNSW DCP provisions.	Notwithstanding this, the building's massing is a result of the building's functional requirements, as outlined above. The provision of a building of this scale will also result in a number of positive outcomes for the Campus more broadly. Notably, the development will enable the construction of Alumni Park, a 2 hectare open space which will provide significant amenity for the lower Campus. The new open space (which is itself the subject of a current competitive design process and will be delivered in a staged manner over the next 5 years) will provide a recreation space for staff and students, as well as providing a separation between residential developments on High Street and academic uses in the centre of the Campus.
The proposed building seeks to match and exceed the scale of the existing Chemical Sciences building. The resulting scheme is of overwhelming height and despite its central location within the Campus, will be visible external to the site.	
Council considers the proposed height to be excessive and unacceptable.	
Speculation of a potential future Campus urban design framework by the proponent is not an appropriate measure of what may be acceptable on the site and holds no applicability in justifying the excessive height proposed.	The University has sought to engage with Council in the development of this new guiding document, and has met with them on several occasions to discuss this document which addresses how the University wishes to develop the lower Campus. Despite Council's desire to enforce DCP 2020, it is noted that the University is now working towards this new Framework for the lower and western Campus, in response to physical changes to the character of this part of the Campus since the 2020 DCP was adopted. Whilst the University has been consulting with Council regarding the desired replacement of DCP 2020 (via the new Urban Design Framework which has been endorsed by the University) it has no statutory weight. Notwithstanding this, for UNSW the Framework now sets the new guidelines and parameters for development in this part of the Campus until it can be formalised.
Should greater height be appropriate in this location, architectural investigation informing the UNSW DCP would have recommended this. The height provisions of the DCP should be applied to the current development in order to achieve built form integration and the high quality design outcome the university seeks.	Refer to above.
The proposed height has the potential to introduce considerable shadow to important spaces within the Campus and an undesirable built form precedent.	Refer to overshadowing response below. The building will not overshadow important spaces within the Campus.
The proposed building is of a basic design and uses concrete louvres to offset the horizontality of a large box.	Refer to above. The building's massing is a result of the building's functional requirements. Notwithstanding this, as detailed elsewhere, the façade design has been amended to increase articulation of the façade through a clearer transition between the blades types.
Contrary to the proponent's broad statements of general consistency with the objectives of the DCP (page 32 of the EIS), the overwhelming variation the proposal seeks to what have been established as suitable heights in the lower campus, would suggest the contrary.	Refer to above.
The proposed height will eventuate in a built form outcome that is inconsistent with surrounding development and of significant visibility external to the Campus.	Grimshaw has prepared a series of massing studies from key vantage points both on and off the Campus (refer to Appendix C). The images show that the building is only partly visible from any location outside of the Campus, with the proposed building being either wholly or partially obscured by existing vegetation and buildings.

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Bulk and Scale	
The UNSW DCP emphasises a sympathetic approach to design, encouraging a sense of place within the campus through outward focussed ground floor uses. The DCP provides that buildings should be open and welcoming, with distinctive architectural character, quality and exceptional design.	The ground plane has been activated where possible to ensure that an appropriate connection with the public domain and pedestrian realm is achieved. A key feature of the ground plane is the connection with the future Alumni Park. Activation at ground floor will be enhanced by publicly accessible, 'outward focussed' ground floor uses including a small retail area, the entry lobby and Centrally Allocated Teaching Spaces (CATS), all of which will be located under the generous colonnade. Laboratories which showcase materials sciences will also be located on the ground floor. Grimshaw has prepared a series of photomontages to demonstrate the connection between the building and the public domain. As shown at Appendix C and Figure 3 of the Response to Submissions Report, this will result in a cohesive relationship with the Kensington Campus and planned open spaces and connections.
Council acknowledges the University has conducted a design competition process in arriving at the current design scheme. Further, it is understood that floor plates of substantial size are necessary for the proposed research and laboratory uses.	Noted. During the design competition process, Grimshaw's scheme was evaluated against a range of criteria including: the response to the site, the quality of the space, environmental design and building area efficiencies, as well as research space flexibility and adaptability. As well as meeting these criteria, Grimshaw's design was set apart from other entries due to the key principles of their scheme, which revolved around a collaborative use of expertise, adaptability, flexibility and materiality.
The substantial bulk and scale of the proposal is emphasised in the horizontality of a minimalist design approach. The bulk and scale of the building will be immediately obvious in the absence of any articulating or modulating elements providing relief. Visual interest and a breaking up of the horizontality of the building should be achieved through physical building articulation. The proposed concrete louvres go some way to achieving visual interest in a basic building form, however the firmly minimalist approach adopted is considered inappropriate to a building of the height proposed.	The original façade design was developed as part of the competitive design process and was characterised by a smooth graduated transition between blade angles along each façade. This resulted in a subtle variation which provided a minimalist, monolithic aesthetic. Whilst it is noted that physical building articulation cannot be achieved due to the building's functional requirements, in response to the issues raised, the façade design has been amended to increase articulation of the façade through a clearer transition between the blades types. This articulation has reduced the perceived mass of the building by reducing the monolithic appearance. To further enhance this effect the number of blade profiles has increased from 1 to 4. The new profiles project an equal distance from the façade presenting a consistent chamfered end profile that helps to unify the discreet sections along the elevations. The façade modulation will continue to passively respond to external climatic conditions in order to reduce the energy demands of the building. The angle of the solar blades also responds to the internal organization of spaces within the building. This has been achieved by 'opening' up the blades where maximised natural daylight penetration is required to the breakout spaces along the northern façade. Where the offices occur, the blades are angled to minimise direct solar gain whilst maintaining views out from the building. The proposed materiality has also been amended during the design development process, with the weight of the blades being reduced to remove the need for external horizontal supporting rails fixed which back to the façade at each floor level. This has been achieved by utilising a thinner, lightweight masonry material, and by reducing the mass of the sub-frame. It is noted that the CDAP has reviewed the revised façade design, and has considered it to be an appropriate response to the issues raised. A detailed response to this range of bulk and scale issues is located at Section 2.1 of the Response to Submissions Report. A letter prepared by the Panel's Chair, Mr Ken Maher, is located at Appendix B of the Response to Submissions Report.
Significant opportunities exist for the design scheme to emphasise the educational nature and pedestrian surrounds of the building, through incorporation of increased articulation and modulating elements at lower levels. Simple refinement of the design could eventuate in a substantially improved relationship to the pedestrian realm at lower levels. This approach is vital in the creation of an effective educational building and	Refer to above.

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maintaining cohesiveness within the UNSW Campus.	
Shadow Impacts	
The east-west orientation and excessive height of the building means the shadow impact upon the southern adjoining buildings and open spaces is likely to be significant.	The shadow diagrams have been updated to address Council's comments.
The shadow diagrams provided to Council seem to lack important detail including elevation detail of adjoining buildings. In the absence of an indicated north point on the submitted diagrams, Council is unable to check the accuracy of the diagrams.	With respect to Council's concerns about the orientation of the building and the impact on overshadowing, it is noted that the building has been orientated to enable the development of Alumni Park (which will not be overshadowed by the proposed building) and to reinforce the existing avenue of buildings from Anzac Parade in the lower and western Campus to the Upper Campus in the east. If the building was orientated north-south, it would result in the need for significant mechanical cooling and sun shading to eliminate excessive heat gain to research spaces. Grimshaw has prepared revised Shadow Diagrams which demonstrate the impact of the development on adjoining buildings to the south. On the Winter Solstice, the new building will result in overshadowing of the Law Building at 9am, as well as some overshadowing at midday. By 3pm, there is no overshadowing of the Law Building. With respect to the Chemical Sciences Building, there will be some overshadowing of the building's lower levels at midday and 3pm, with very minimal overshadowing in the morning. It is noted that there is only limited overshadowing of these buildings on the Equinox, and no overshadowing at the Summer solstice. Whilst some areas of public domain to the south of the building will be overshadowed (primarily internal roads) the provision of 2 hectares of unshadowed open space to the north is considered to outweigh any minor overshadowing experienced here.
Parking Issues	
The proposed development will require the removal of 84 car spaces on lower campus including 2 disabled spaces and a carshare space operated by GoGet Carshare. The traffic and parking study attempts to justify this by noting that the total amount of parking spaces on campus will actually increase by 1 space when taking into account recent redevelopments around the Campus. This approach fails to recognise the increased parking demand generated by the redevelopment within the Campus and the significant reduction of parking availability to permit holders and visitors.	As demonstrated at Figure 6 of the Response to Submissions report, at the completion of the MS&E Building in 2014 there will be a net gain of 19 car parking spaces on the Campus when compared to what was available in 2011. TTW has revised their parking calculations to reflect these figures, and to respond to Council's concerns around the data used to establish the parking demand generated by the new building (refer to the Parking Statement at Appendix D). The level of car use among staff has been taken from the 2012 UNSW Survey - Travel Trends (see Appendix B as part of Traffic and Parking Report submitted with the EIS). The data demonstrates that 41.1% of staff travel to and from the University as car drivers. The rate of 44% that Council has used includes car passengers and motorbikes, which is not an applicable consideration when determining parking demand. However, due to staggered working days and hours, holidays, illness and other absenteeism, not all staff are on the Campus at any one time. On this basis, TTW has applied an attendance rate of 80%, which is supported by the University's survey data. Based on these figures, and the immediate population increase resulting from the development (i.e. 24 staff), there would be an initial maximum car parking demand of 8 spaces (i.e. $0.41 \times 24 \times 80\% = 8$ spaces). This immediate requirement will be met (and exceeded) by the additional 19 spaces that will already be available on the Campus by the end of 2014 when the new MS&E Building is completed. The parking demand generated by up to 144 future staff (if calculated based on current levels of car usage) would result in a need for 48 spaces (i.e. $0.41 \times 144 \times 80\% = 48$ spaces). This compares to Council's calculation of 63 spaces which did not take into account staff attendance rates or the reduced proportion of staff that travel to the Campus as car drivers. However, this parking demand is only accurate if the full population growth were to occur immediately. As the maximum population would not be reached for at least 5 to 10 years (if at all) TTW has used existing survey data to predict future travel patterns. As outlined in TTW's original report, the survey data demonstrates that there was a 12% decrease in car drivers between 2007 and 2012. This decline is acknowledged by Council in its response. Based on these trends, TTW has calculated the future parking demand on the assumption that 35% of staff will travel

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	to the University as car drivers, representing a conservative reduction of only 6%. On this basis, a future population of 144 would result in a parking demand of 40 spaces (i.e. $0.35 \times 144 \times 80\% = 40$ spaces). Using these figures, the fully occupied building would result in a future parking deficiency of 21 spaces on the Campus (i.e. 40 (deficiency) – 19 (surplus on the Campus at the end of 2014) = 21 spaces). This represents only 0.8% of the overall parking provision across the Campus, which does not represent a "chronic parking shortfall" as suggested by Council. Further, the projected parking demand may never be required given the recent commitments that have been made around public transport and light rail, and the ongoing decline in driving rates amongst staff as a result of the University's own travel management policies.
The approach does not recognise the geographic nature of the parking demand, with Lower Campus likely to experience a severe parking deficiency as a result of this proposal. The UNSW Campus is large campus, and offsetting parking demand by re-developments on the other side of Campus is not always considered appropriate.	The University addresses parking on a Campus-wide basis rather than in geographic regions or sectors. This approach is based on the University's annual travel survey results, which show that students and staff are willing to walk across the Campus to park their car if parking is not available in the vicinity of their destination. In any event, it is the University's view that parking availability is fairly evenly distributed across the Campus at present. On this basis, UNSW has prepared a table summarising recent developments across the Campus and the increases and decreases of parking associated with each. A copy of the table is provided at Appendix C and demonstrates that there will be a net increase of 19 parking spaces on the Campus by the end of 2014 (when the MS&E Building will be occupied).
The loss of one carshare space is not consistent with the sustainable transport objectives and at minimum this space shall be relocated elsewhere on the Lower Campus, with additional share spaces considered. The loss of the carshare space is not acknowledged in the accompanying Traffic and Parking Report.	The car share space has been temporarily relocated in front of the MS&E Building, opposite the Law Building. As the University Terraces development is now complete, it will soon be moved to a permanent space opposite the entrance.
The accompanying traffic and parking study states that the new building will accommodate up to 700 staff but claims a majority of these will be relocated from elsewhere within the Campus. Only 24 additional staff will initially result increasing to 144 at its final completion. On what basis is this calculation determined is not explained in the Environmental Impact Statement. It is also claimed the building will not contribute to additional student numbers.	Relevant to the consideration of parking, it is noted that Council has raised concerns around the University's calculation of the future building population. The building will have a total capacity of approximately 700 people when fully completed and occupied, comprising 540 staff and 150 students. As outlined in the EIS, the building will not result in any additional students on the Campus, either now or in the future. Of the 540 staff who will occupy the building, the existing School of Materials Sciences has a population of 276 which will be relocated into the new building. This figure is based on existing staff lists and post-graduate student enrolments. As noted in the EIS, the building will not be fully occupied immediately. The immediate building population from the basement to level 4 will be 300 (based on an average maximum population of 80 people per floor) resulting in an immediate increase of 24 staff (i.e. $300 - 276$). Based on this same rate of 80 people per floor, levels 5-7 would result in an additional population of 240 people. However, as a result of the University's decanting protocols and strategy, it is assumed that only 50% of these would be additional / new population, with the remaining 50% comprising existing staff moving from elsewhere on the Campus. This results in a shell capacity of 120 people, and a total new capacity of 144 people (i.e. 24 immediate + 120 future).
The parking study has calculated the expected parking demand generated to be in the order of 30 spaces based on the decreasing trend of staff travelling to work by motor vehicle to 35% and 60% of staff attending the 11am peak based on the transport Strategy for the DCP. The parking study has misinterpreted the findings of the DCP Transport Strategy in that it assumes that 60% of staff arriving by car will be at the 11am peak. This is not what the transport study is indicating and it is actually indicating that 60% of the staff arriving at the 11am peak travel by private vehicle. The error	UNSW has carried out annual travel surveys of its staff and students since 2007. The survey results have been provided to Council each year and at no time have Council officers questioned either the methodology or the results of the survey. It is noted that the data used in the TTW Traffic and Parking Report submitted with the EIS was based on figures gathered by the University from its 2012 travel survey. This was a rigorous sample survey of some 10,000 staff and students and is the latest and most accurate data available. Some assumptions in the TTW Report were based on the 2012 survey and differ from those outlined in the Transportation Strategy in DCP

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results in the study significantly underestimating the amount of parking required.	2020. Data for the Transportation Strategy was gathered in 2004 from a limited sample of staff and students by Christopher Stapleton Consulting. It was stated by Stapleton in Appendix 1 of his report for example, that "the estimates of parking demand are expected to be accurate in the range of plus or minus 15% but other figures could vary by plus or minus 40%". It was also recommended by Stapleton that in future, transport data be sourced from the annual travel survey to be carried out by the University. The University's annual travel surveys are far more comprehensive and accurate than the data used in the Stapleton report, with between 7,000 and 10,000+ responses each year from a broad range of staff and students. The data collected is a very good representative sample and supersedes many of the assumptions and predictions from the 2004 Stapleton data. For example, the peak accumulation period of staff and students was estimated by Stapleton as being about 11 am. This has been found to be inaccurate, as the annual travel survey has consistently shown this period occurs between 8 am and 10 am each weekday. Furthermore, bus services to the Kensington Campus have increased substantially since 2004, both in terms of frequency and routes e.g. the addition of the 370, M10 and M50 routes. This also puts into question the assumptions and predictions made by Stapleton (based on current knowledge and data). It is therefore suggested that the 2004 data used as the basis for the Transportation Strategy in the DCP not be relied upon in consideration of current parking demands and future assumptions for the Kensington Campus.
The cater for the 11am peak, parking would actually have to be provided at the rate of $60\% \times 144 = 86$ spaces which is significantly above the 30 spaces calculated by the parking study.	Refer to above.
Council does recognise the decreasing trends in staff arriving to campus by motor vehicle and notes the findings of the 2012 travel survey which indicate that 44% of staff will be arriving by private vehicle. Based on this rate: Number of parking spaces required: $0.44 \times 144 = 63$ spaces.	Refer to above.
The lack of any parking for staff or visitors is not supported by Council. In additional the total of only 24 additional staff increasing to 144 is questionable. Additional parking demand may be greater than the 63 spaces calculated.	Refer to above.
No basement parking is proposed, contrary to DCP 2020.	Council has stated that the lack of basement parking is contrary to DCP 2020. This is incorrect. As shown on Figure 5.13 in the DCP there is no requirement for parking to be located within the area proposed to be occupied by the MS&E Building. Figure 5.13 indicates preferred locations for basement parking on the lower Campus along the High Street perimeter and the University is providing these through recent planning approvals for the Gate 2 Housing and The Kensington Colleges. Whilst the development will not generate significant parking demand, it is impracticable to provide basement parking in the centre of the Campus as this would require the construction of new roads in conflict with existing and proposed pedestrian routes and open space. The provision of parking within the basement of the MS&E Building would also interfere with sensitive scientific equipment that will be located within the building's basement and used for high level research.
DCP 2020 requires 100 short-term parking to be located in lower campus with access from High Street over time as new visitor parking for the Campus. The loss of 84 spaces is not consistent with this requirement.	Noted. Refer to above. The University is providing these through recent planning approvals for the Gate 2 Housing and The Kensington Colleges.

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The proposal will create a total parking deficiency of 147 spaces which takes into account the existing 84 spaces removed by the proposal as well as the 63 spaces generated by the proposed development. This is grossly excessive and will lead to a chronic parking shortfall on lower campus and increase the impact on on-street parking in High Street.	Refer to above, based on the revised figures, the fully occupied building would result in a future parking deficiency of 21 spaces on the Campus (i.e. 40 (deficiency) – 19 (surplus on the Campus at the end of 2014) = 21 spaces). This represents only 0.8% of the overall parking provision across the Campus, which does not represent a “chronic parking shortfall” as suggested by Council. Council has also raised concerns that the parking shortfall will impact on the availability of on-street parking on High Street. The University notes that the very minimal shortfall in parking will not result in any perceivable additional demand for on-street parking. Further, on-street parking is beyond the University’s jurisdiction and is the responsibility of Council, as outlined in the UNSW Transportation Strategy in Figure 5.12 of DCP 2020. Council has also previously acknowledged the need to develop a precinct-wide approach to car parking, and has recognised that it is not solely the University’s responsibility to manage parking in the locality. This precinct-wide approach to parking is supported by Council’s Randwick Education and Health Specialised Centre Precinct Plan which calls for the consideration of future shared parking facilities in the area.
It is acknowledged that the future light rail extension recently announced by NSW Government will contribute to reducing the parking demand but this is a number of years away and would not compensate enough to consider the parking deficiency acceptable.	It is noted that the NSW Government has confirmed that the CBD and South East light rail will proceed, with construction expected to commence in 2014. This will further reduce the demand for parking on the Campus by the time the full building population is realised, by limiting the need for students and staff to travel to the Campus and NIDA (located on the western campus) by car and to find parking on-site or in local streets. In addition, the new light rail will: ▪ Be integrated with bus services to reduce road congestion and improve passenger frequency and capacity to the Campus; and ▪ Encourage urban renewal and support higher density living along the rail corridors thereby helping to achieve the NSW Government’s objectives of increasing employment and housing opportunities. Irrespective of the proposed light rail, the site is already within 800m of public transport facilities and so the provision of surplus parking is contrary to national and state initiatives which support active transport and public transport usage, as well as those embodied within DCP 2020 which aim to reduce car usage and dependency. At a state level, the Department’s Guidelines for Integrating Land Use and Transport seek to discourage car use by limiting the supply and availability of parking, particularly in areas with good public transport access. Contrary to these objectives, providing additional parking in and around the Kensington Campus would only support the use of private vehicles, and increase traffic congestion on surrounding roads.
Land Contamination	
Coffey Geotechnics’ report identifies the potential contaminants of concern, however no confirmed opinion on the site’s suitability or required remedial actions have been provided, therefore a detailed site investigation is recommended.	In response to the issues raised, Coffey Environments has undertaken additional research to assess the potential for contamination on the site. The findings are provided in the Supplementary Environmental Assessment (refer to Appendix E) and are summarised below. Based on a review of available desktop data, observations made during fieldwork and an assessment of laboratory analytical data, Coffey has made the following conclusions with respect to the proposed tertiary education land use: ▪ Concentrations of TPH, BTEX PAH, OCP, PCB, arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc detected in soils on site are not considered to present an unacceptable exposure risk to human health, with respect to direct contact or ingestion; ▪ Site soils are considered unlikely to present an unacceptable aesthetic risk, subject to removal of the subsurface concrete slab in the vicinity of BH MSB-1, CBH3 and CBH4. It is noted that excavation of the proposed basement, is likely to address this; ▪ Concentrations of BTEX, TPH C6-C10, >C10-C16 and naphthalene detected in soils are not considered to present an unacceptable exposure risk to human health, with respect to soil vapour intrusion;

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	- Concentrations of arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc detected in soils on site are not considered to present an unacceptable ecological exposure risk, with respect to phytotoxicity; - Acid sulfate soils are not likely to be present on the site; and - The historically assessed contamination status of the Gate 4 High Street land and Gate 2 Avenue (off High Street) is not considered to have an adverse material impact on the contamination status of the site. Based on these conclusions, Coffey has confirmed that the land is suitable for the proposed development, and the use of the building for educational purposes including classrooms and laboratories.
Potential Acid Sulphate Soils	
The Statement of Environmental Effects does not provide any advice on Acid Sulphate Soils therefore further information would be required.	Refer to above. Acid sulfate soils are not likely to be present on the site. Further, Council's Acid Sulphate Soils map does not map the Campus as having acid sulfate soils.
Acoustics	
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 will not be in operation at night to assist with compliance. Future night time operation may require further acoustic investigation.	Noted.
Legionella Control	
Cooling towers may be proposed. Suitable conditions to be imposed to address this issue.	Noted.
Risk Analysis	
The Statement of Environmental Effects concluded that there were no unidentified environmental risks associated with the development. Further compliance with BCA, Australian Standard 1668 part 1 and 2 would also assist in compliance with relevant criteria.	The development will comply with the relevant Australian Standards, and the relevant provisions of the BCA.
Storage and Handling of Dangerous Goods	
The design and management of the building will comply with the appropriate laboratory design and procedures, dangerous goods handling and storage of hazardous waste management controls NSW State legislation, WorkCover requirements and relevant Australian Standards.	Noted.
Waste Management	
Operation of the facility will generate a variety of solid and liquid wastes including biological wastes, electronic waste and chemical waste and requires a range of	Operational waste from the building will be managed in accordance with the University's existing Interim Waste Plan, and the UNSW Laboratory Hazardous Waste Disposal Guideline.

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management strategies. Disposal of hazardous wastes is managed through the University's Disposal of Hazardous Waste Procedures and must comply with EPA requirements for the removal of hazardous substances, dangerous goods and biological hazardous waste to ensure compliance with regulatory requirements.	Noted.								
Randwick Section 94A Development Contributions Plan 2012									
Under the provisions of Council's Section 94A Development Contributions Plan, effective 17 July 2012, the following monetary levy is required: <table><tr><th>Category</th><th>Cost</th><th>Applicable Levy</th><th>S94A Levy</th></tr><tr><td>Development cost more than \$200,000</td><td>\$125,811,038</td><td>1.0%</td><td>\$1,258,110.38</td></tr></table>	Category	Cost	Applicable Levy	S94A Levy	Development cost more than \$200,000	\$125,811,038	1.0%	\$1,258,110.38	A detailed discussion around this matter is provided at Section 2.5 of the Response to Submissions Report. In summary, the University maintains the view that there are several policy reasons why the Minister should not require contributions to be paid for this project under Randwick Section 94A Development Contributions Plan 2012. It is noted that the payment of any contribution on this development is discretionary, and that the approval authority, in this case the Minister for Planning and Infrastructure, while empowered to impose a condition requiring the payment of a monetary contribution is not required to under either the EP&A Act or Council's Contribution Plan. The University believes that: - the University is a registered not for profit organisation; - the University is an education facility and nominated charity; and - there has been a consistent approach adopted by the Department for UNSW on previous applications of this nature.
Category	Cost	Applicable Levy	S94A Levy						
Development cost more than \$200,000	\$125,811,038	1.0%	\$1,258,110.38						
Section 94A development contributions are intended to address and meet expected increased demands that ongoing development will place upon the City's infrastructure. UNSW is seeking exemption from Section 94A contributions for various development projects. The Section 94A Development Contributions Plan provides exemptions for certain categories of development. The subject development does not fall into any of the exempt categories identified within the current Section 94A plan, and as such the above levy must be paid to Council as part of any consent granted. Council has provided substantial benefits in the form of capital infrastructure important to the University without any rating base, such as roads, footpaths, street signage, street furniture, bus shelters, stormwater management, street trees, parks, community facilities and town centre public domain improvement. Council would emphasise that the University's core business model is not possible in isolation and is made possible only with the ongoing support of Council infrastructure and ongoing upgrading of this infrastructure.									

Issue Raised by Agency	Proponent's Response
Council's Section 94A Plan recognises that expected employment growth in Randwick City will be focussed on the university precinct. The university is therefore expected to continue to place substantial pressure on Council's local infrastructure. It is therefore considered that the imposition of Section 94A contribution requirements on the subject proposal is appropriate and reasonable.	
NSW Environmental Protection Authority	
Noise and Vibration	
Construction noise impacts have not been assessed for on-campus student accommodation or educational facilities, both of which are in close proximity to the subject site. The Acoustic Report should be amended to include residential receivers on site as well as those off site.	SLR has prepared an Addendum Statement to support the original Operational and Construction Acoustic Report submitted with the SSD DA (refer to Section 2.4 of the Response to Submissions Report and Appendix F). It is noted that since completion of the original report, SLR has undertaken further noise monitoring on the roof of the nearest affected UNSW residential accommodation building, approximately 65m from (and overlooking) the proposed MS&E Building. This data has not resulted in the need to revise the previously developed criteria, and so this remains consistent with the original report. Further, given the increased distance to the residential accommodation compared to the adjacent educational areas (as close as 10m), complying with the noise criterion of 45dBA at the nearby educational areas will also result in compliance at the residential accommodation – during both the daytime and evening. Further, given that some plant equipment will not operate during the night, controlling noise to the daytime and evening criteria at the adjacent educational areas will guarantee compliance at the residential accommodation during the night time. SLR has considered the EPA's comments around the lack of testing at on-campus student accommodation, however maintains that no testing is required for internal, on-site premises. SLR has noted that whilst the EPA is the appropriate regulatory authority for regulating noise emissions that are generated on university grounds (which cause or have the potential to cause disturbance to noise receivers that are not associated with the University) the University is responsible for regulating noise emissions to receivers within its own premises. For developments where the EPA is the regulatory authority and the Department is the consent authority, SLR Consulting has previously received instruction that all project-related (owned) properties / receivers do not require assessment. Further, when referring to "offensive noise" (potential for noise impacts), the <i>Protection of the Environmental and Operations Act 1997</i> only refers to "a person who is outside the premises from which it [the noise] is emitted". Accordingly, for the purposes of receiving a project approval or licence for the construction works, an assessment to university related or owned premises is not required. Notwithstanding the above, SLR agree that an assessment of noise and vibration to on-site, project-related receivers should be undertaken as part of the Construction Noise and Vibration Management Plan, but only once the project is approved. In this regard, the University (with guidance from SLR) would first determine what it considers to be acceptable noise levels from its own construction activities to the various potentially noise-sensitive on-campus receivers / spaces, followed by predicting the likely noise levels from the proposed construction activities. If the predicted noise levels are above the acceptable noise levels, the University would then decide whether to implement mitigation and scheduling restrictions (in order reduce the on-campus noise exposure) and accept any corresponding increases in project costs and delivery time.
The EPA has identified a number of technical issues with the Acoustic Report prepared by SLR: Justification regarding selection of short and long-term noise monitoring locations in accordance with the <i>Industrial Noise Policy</i> (2000).	These matters have been addressed as part of SLR's Addendum Statement. In summary: The logger location was selected with consideration to: other noise sources which may have influenced the readings – including wind, rustling trees; and security issues for the noise monitoring equipment; and, in the case of the follow-up survey of October 2012, gaining permission for

Issue Raised by Agency	Proponent's Response
▪ A long term noise logger appears to have been located beneath trees, contrary to <i>Industrial Noise Policy</i>. ▪ Information regarding the source of weather data has not been provided. ▪ The Report does not indicate the volume of noise associated with wind and rain experienced during the monitoring period, contrary to <i>Industrial Noise Policy</i>. ▪ External noise levels at the Law and Chemistry Buildings should not exceed 55 dBA once the new building is in use, in accordance with the <i>Industrial Noise Policy</i>.	access from residents. In practice, ideal noise monitoring locations are rarely found and a compromise is often necessary; ▪ Weather data is provided on the graphs in Appendix A of the original Operational and Construction Acoustic Report submitted with the EIS. The data was obtained from the Bureau of Meteorology weather station at Sydney Airport; ▪ Our review of the data (the graphs in Appendix A of the report) shows the "noise data obtained does not appear correlated with wind speed" (eg, Sunday 29/7/12: wind speed of between 4m/s and 9m/s, with no change in measured LA90), Section 4.1 of the report states. Accordingly, the data has not been filtered based on wind. Further, given the analysis of determination of the RBL is biased towards the lower (LA90) values measured during the relevant periods, we are confident the criteria developed will not have been influenced by wind or rain noise; and ▪ This (65 LAeq) was an error. However, it is entirely irrelevant, as the text that immediately followed (also in bold in the report) stated. Therefore, the over-riding criterion will be that external levels incident on the current Materials Sciences Building are to be no greater than 45 LAeq.
Noise monitoring should be undertaken upon commencement of building use to confirm noise is suitably controlled to evening criteria at residential accommodation in proximity to site.	The University is willing to undertake noise monitoring upon commencement of the new building to confirm that noise is suitably controlled to evening criteria at residential accommodation near the site.
Noise monitoring undertaken was not completed at the most sensitive residential receivers in Doncaster Avenue. The EPA recommends that future noise monitoring be completed at the most affected residential receiver/s, rather than extrapolated from minoring completed elsewhere.	Noted. Notwithstanding the EPA's concern, it is noted that these residences are located over 300m from the site of the proposed MS&E Building. The findings of the original Acoustic Report demonstrate that by complying with the noise criteria at the University's residential accommodation, compliance will also be achieved at the neighbouring premises. Further, considering the proximity of the Doncaster Avenue residences to road traffic noise from Anzac Parade, and the shielding that will be afforded by buildings between the proposed site and these residences, no further assessment is considered necessary. On this basis, the statement at Section 5.1.4 of SLR's original report still stands: <i>Given the increased distance (a further 100 m) to the stables to the north, and (a further 270 m) to the residential accommodation to the west, complying with the noise criteria at the University's residential accommodation will also result in compliance at the neighbouring premises.</i>
Contamination	
The EPA recommends that a further contamination assessment be completed in accordance with the <i>Contaminated Land Management Act 1995</i> for those areas that are to remain exposed following construction of the proposed building.	Coffey has undertaken addition assessment, refer to above and Section 2.3 of the Response to Submissions report.
The conditions of consent should include the preparation of a Contamination Management Plan to ensure that unexpected conditions encountered in the fill material on site can be appropriately managed.	Noted.
Cumulative Impact	
The EIS does not address the cumulative impacts of the proposal and other development in the vicinity as required by the DGRs.	Whilst the EIS provides a detailed environmental assessment, it is acknowledged that there was no discussion of the proposal's cumulative impact. The environmental assessment demonstrates that the proposal will not have any negative environmental impacts, whether considered alone, or in conjunction with other recent developments in the vicinity of the site. Any potential impacts will be mitigated by the Mitigation Measures at Section 8.0 of the EIS.

Issue Raised by Agency	Proponent's Response
Recommended Conditions of Approval	
The EPA's submission includes a number of conditions for inclusion in any approval relating to noise and vibration, water quality, groundwater, contamination and air quality.	The University is willing to accept the conditions of approval put forward by the EPA.
Sydney Water	
The proponent should engage a Water Servicing Coordinator in order to obtain a Section 73 Certificate.	Noted.
The development will connect to the private 200mm internal ring main within the UNSW campus. The private main is connected to the 300mm Sydney Water main in Anzac Parade which has capacity to service the proposed development.	Noted.
The current wastewater system has sufficient capacity to serve the proposed development. The wastewater main available for connection is the 225mm on High Street or the 300mm wastewater main.	It is noted that the 300mm wastewater main is located in Anzac Parade. The development will discharge to this main.
Sydney Water will further assess the impact of any subsequent development when the developer applies for a Section 73 Certificate.	Noted.
Sydney Regional Development Advisory Panel	
The proposed number of parking spaces should be determined by the Department of Planning and Infrastructure in consultation with Council.	No parking spaces are proposed as part of the proposed development. A detailed justification of the proposed parking arrangements is outlined above, and at Section 2.2 of the Report.
The swept path of the longest vehicle (including garbage trucks) entering and exiting the subject site, as well as manoeuvrability through the site and local road network, shall be in accordance with AUSTROADS. In this regard, swept path plans should be provided to DP&I and referred to Council for review and comment	Noted. A swept path analysis has been carried out for a 19m articulated truck, which is the largest anticipated vehicle. A swept path analysis has also been carried out for an 11m fire truck in accordance with UNSW Fire Truck Access Masterplan. The access arrangements have been designed accordingly.
The layout of the proposed car parking areas associated with the subject development (including, driveways, grades, turn paths, sight distance requirements, aisle widths, aisle lengths, and parking bay dimensions) should be in accordance with AS 2890.1-2004 and AS 2890.2—2002 for heavy vehicles.	The car park will be designed to comply with the requirements of AS 2890.1-2004 and AS 2890.2—2002 for heavy vehicles.
A Construction Traffic Management Plan detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to Council for review prior to the issue of the first Construction Certificate.	A Construction Traffic Management Plan will be issued to Council for review prior to the issue of the first Section 109R Certificate.
All vehicles are to enter and leave the site in a forward direction.	All vehicles will be able to enter and exit the site in a forward direction.
The developers should be aware of the potential for road traffic noise impact from High Street on the proposed development on the subject site. The developer should provide and maintain noise attenuation measures in accordance with Office of Environment &	Noted.

Issue Raised by Agency	Proponent's Response
Heritage's Environmental Criteria for Road Traffic Noise.	
All works / regulatory signposting associated with the proposed development shall be at no cost to RMS.	Noted.