NSW GOVERNMENT | Planning & Environment

STATE SIGNIFICANT DEVELOPMENT ASSESSMENT REPORT: UTS Central, Broadway Precinct, City Campus (SSD 7382)

Environmental Assessment Report
Section 89H of the *Environmental Planning and Assessment Act 1979*

September 2016

ABBREVIATIONS

Applicant	University of Technology Sydney
CIV	Capital Investment Value
Consent	Development Consent
Council	City of Sydney Council
DA	Development Application
DCP	Development Control Plan
Department	Department of Planning and Environment
EIS	Environmental Impact Statement
EPA	Environmental Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
LEP	Sydney Local Environmental Plan 2012
Minister	Minister for Planning
OEH	Office of Environment and Heritage
RMS	Roads and Maritime Services
RtS	Response to Submissions
SEARs	Secretary's Environmental Assessment Requirements
Secretary	Secretary of the Department of Planning and Environment
SEPP	State Environmental Planning Policy
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development
TfNSW	Transport for NSW

Cover Photograph: Photomontage from Chippendale Way (*Source: FJMT)*

Published September 2016
NSW Department of Planning and Environment
www.planning.nsw.gov.au

EXECUTIVE SUMMARY

This report is an assessment of a State significant development application lodged by the University of Technology Sydney (UTS), seeking approval for the construction and use of an education building within the Broadway Precinct at UTS City Campus, Ultimo.

The project, UTS Central, has a capital investment value (CIV) of approximately $278 million and would generate 250 operational jobs and 239 construction jobs.

The development is State significant development under clause 15 of Schedule 1 to the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP), as it is development of education facilities and has a CIV of more than $30 million. The Minister for Planning is the consent authority.

The site is zoned B4 Mixed Use under the Sydney Local Environmental Plan 2012 (SLEP) and the development of an education establishment is permissible with consent.

The proposal was exhibited from 12 May 2016 until 10 June 2016. The Department of Planning and Environment (the Department) received a total of nine submissions during the exhibition of the application - five submissions from public authorities, including City of Sydney Council, and four submissions from the general public, including organisations. The matters raised in the submissions included impacts on pedestrian movement, residential amenity impacts, demolition and construction impacts, public domain works and development contributions.

The applicant provided a Response to Submissions, which included: further justification for design variations to the competition-winning podium design and demonstration that design excellence has been achieved; analysis of pedestrian capacity and movement along Broadway; further details regarding overshadowing impacts; and information regarding timing of Jones Street public domain works and justification for exemption from development contribution requirements.

The Department has assessed the merits of the proposal and has found the key issues associated with the project include: built form and urban design; environmental and residential amenity impacts; and transport impacts. The Department is satisfied that the impacts of the proposal have been addressed in the Environmental Impact Statement (EIS) and Response to Submissions, and can be adequately managed through the recommended conditions. The proposal demonstrates design excellence and design integrity of the competition winning scheme for the podium has generally been maintained. The residential amenity impacts are considered acceptable on balance given the proposal is delivering social infrastructure in a recognised and highly accessible education and health precinct and the CBD context within which the affected residential units are located.

The Department considers the application is consistent with the objects of the Environment Planning and Assessment Act 1979 (EP&A Act), including ecologically sustainable development, State priorities and *A Plan for Growing Sydney*. The Department is satisfied that the subject site is suitable for the proposal and would provide additional employment opportunities. The Department therefore considers the development would be in the public interest and recommends that the State significant development application be approved, subject to conditions.

TABLE OF CONTENTS

1. BACKGROUND AND PROPOSED DEVELOPMENT

1.1 Background

The University of Technology Sydney (UTS - the applicant), proposes to construct an education building (known as UTS Central) and increase its capacity to deliver educational services within these facilities at the Broadway Precinct within the UTS City Campus, Ultimo.

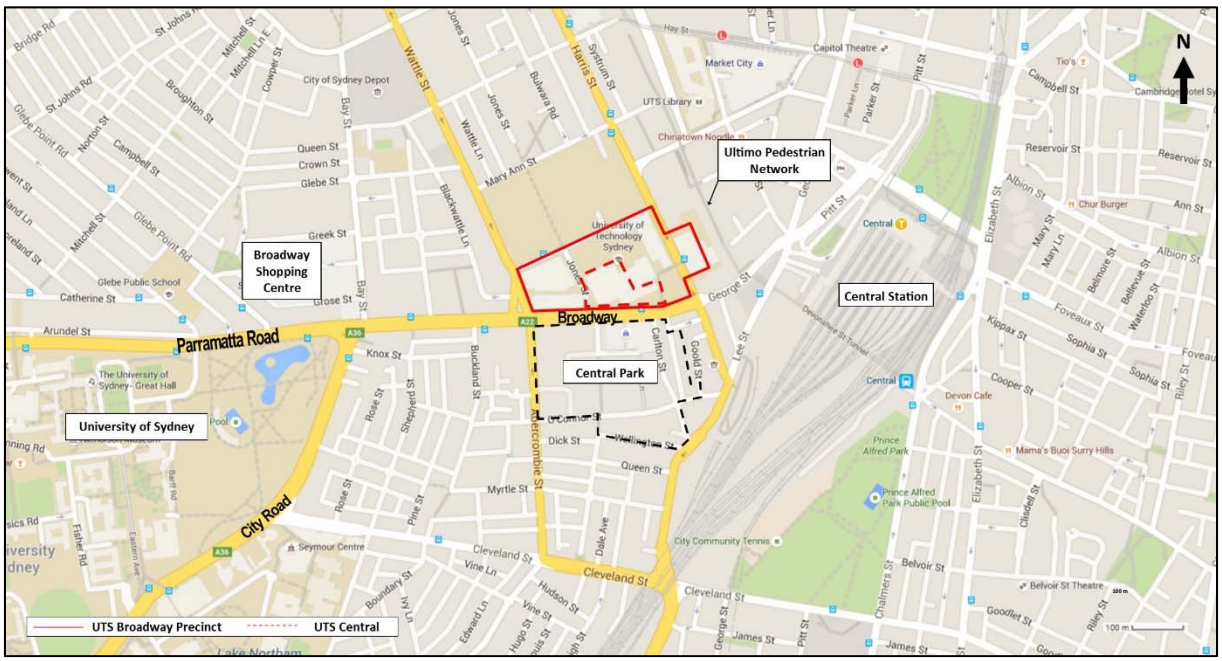

Figure 1: UTS Broadway Precinct location and surrounding context *(source: nearmaps)*

UTS Central would comprise a new 10 storey tower (including a plant level) above a new five storey podium to replace Building 2 and a new four storey interconnecting podium linking through the forecourt to the existing Building 1 (refer to **Figure 5**). The new facilities would provide additional floorspace for teaching, research and learning.

UTS Central is the final stage of the approved concept plan (MP 08_0116) for the Broadway Precinct. The approved concept plan (as modified) comprises the following components:

- the Faculty of Engineering and IT Building (formerly the Broadway Building);
- the Faculty of Science and Graduate School of Health Building (formerly the Thomas Street Building);
- expansion of the podium of Building 1 and a new Building 2;
- expansion of Building 6 for student housing;
- modifications to Buildings 3, 4 and 10;
- modifications to Alumni Green, including a below ground book storage vault;
- public domain improvements to Broadway, and Thomas, Harris, Wattle and Jones Streets; and
- a Multi-Purpose Sports Hall beneath the eastern part of Alumni Green.

The concept plan was originally approved on 23 December 2009 by the then Minister for Planning and has been modified five times. Most recently MOD 5 was approved on 17 March 2016, which comprises the demolition of Building 2, a revised maximum gross floor area (GFA) of 38,261 sqm for Building 2, a new building envelope with a maximum height of 64.5 m and revised design controls for Building 2.

Refer to **Figures 2** to **4** for the completed new buildings and Alumni Green.

Figure 2: The Faculty of Engineering and IT Building *(source: the applicant)*

Figure 3: The Faculty of Science and Graduate School of Health Building *(source:DoPE)*

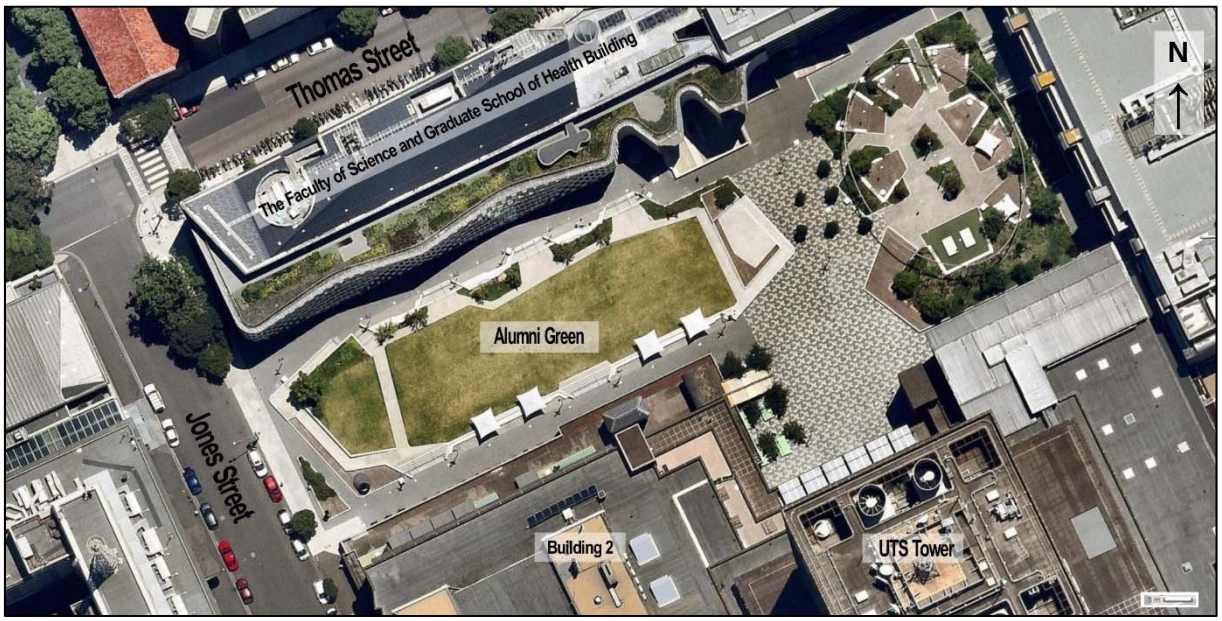

Figure 4: Alumni Green *(source: nearmaps)*

1.2 Site Description

The UTS City Campus is comprised of three precincts – Haymarket, Broadway and Blackfriars – all of which are located on the southern edge of the Sydney CBD within the City of Sydney Local Government Area (LGA). The Broadway Precinct (refer to **Figure 1**) has an area of approximately 42,000 sqm and is located on the northern side of Broadway. The precinct is bound by: Thomas Street and the ABC Ultimo Centre to the north; the Ultimo Pedestrian Network to the east; Broadway to the south; and Wattle Street to the west.

The Broadway Precinct is shown in **Figure 5**. The proposal is located on the southern edge of the Broadway Precinct on Lot 2012 DP 1183894. The proposal is located in the central portion of the precinct bounded by: Alumni Green and Building 1 to the north; Building 18 to the east; Broadway to the south; and Jones Street to the west.

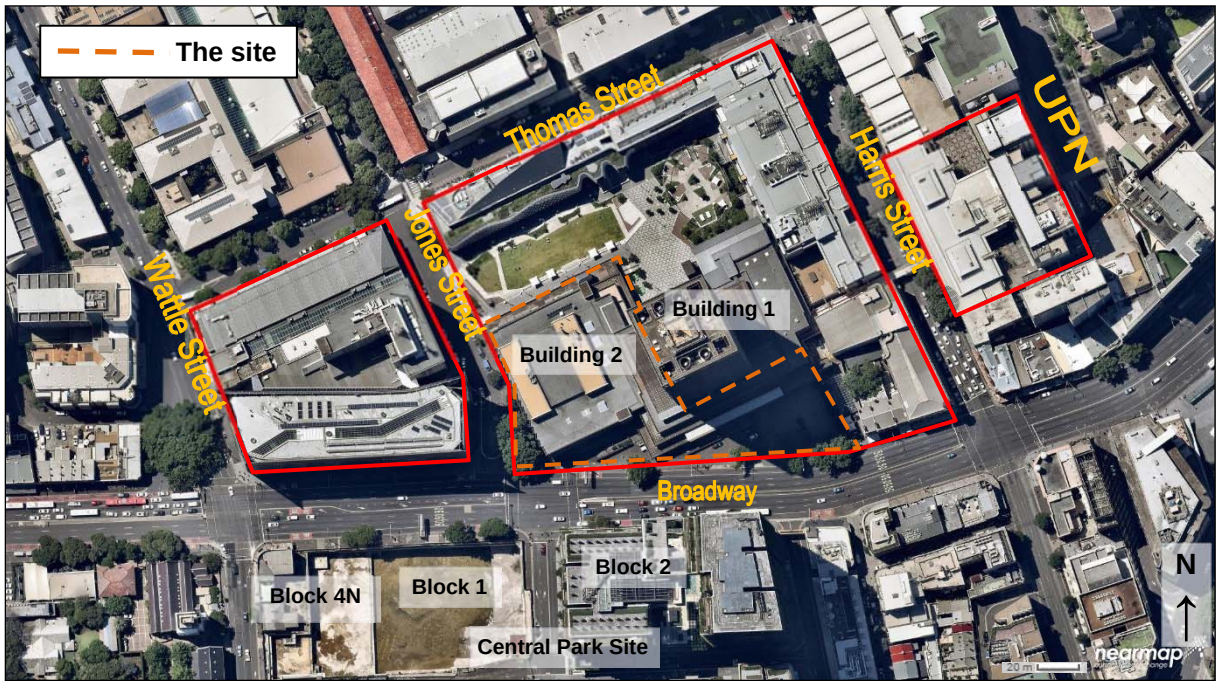

Figure 5: Project location (Broadway Precinct outlined in red) *(source: nearmaps)*

1.3 Surrounding Development

The former Carlton United Brewery site is located to the south of the UTS Broadway Precinct across Broadway. The site is currently undergoing redevelopment and is now known as Central Park. The proposal is located north of Block 2 within Central Park and north-east of approved locations for Block 1 and Block 4N.

Construction of Block 2 within Central Park is complete and comprises a six storey retail podium and two residential towers of 12 and 29 storeys. The 12 storey tower within Block 2 is located immediately to the south of Building 2 directly across Broadway.

Recent approvals have been issued to amend the approved concept plan for Central Park to allow for the conversion of the 19 and 20 storey buildings on Block 1 and Block 4N (south west of the proposal) from commercial floor space to residential and serviced apartments. Development consents for the construction of the two buildings have also recently been granted. Construction works have commenced.

Located to the north of the site is the heritage listed former Sydney Technical College Building, on the corner of Jones and Thomas Streets. The heritage listed building is a four storey building.

1.4 Project Description

Table 1 provides a summary of the proposal's key components and features and shown in **Figures 6** to **8** is the proposed site layout.

Table 1: Key Development Components

Development Summary	• site preparation works, including demolition of existing Building 2 to ground level and associated tree removal; • construction of a new 15 storey Building 2, including a part five storey podium and one level of plant, above an existing two level basement; • construction of a four storey extension of podium of Building 1 along Broadway, integrated with podium of Building 2; • public domain improvements works; • landscaping works; • staging of the construction of the two buildings; and • extension and augmentation of physical infrastructure/utilities.
Maximum Height	Overall – 65.5 metres (RL 79.5) Podium – 23.16 metres (RL 37.16)
Gross Floor Area (GFA)	46,150 sqm
Capital Investment Value	$278,230,007
Jobs	250 operational and 239 construction jobs

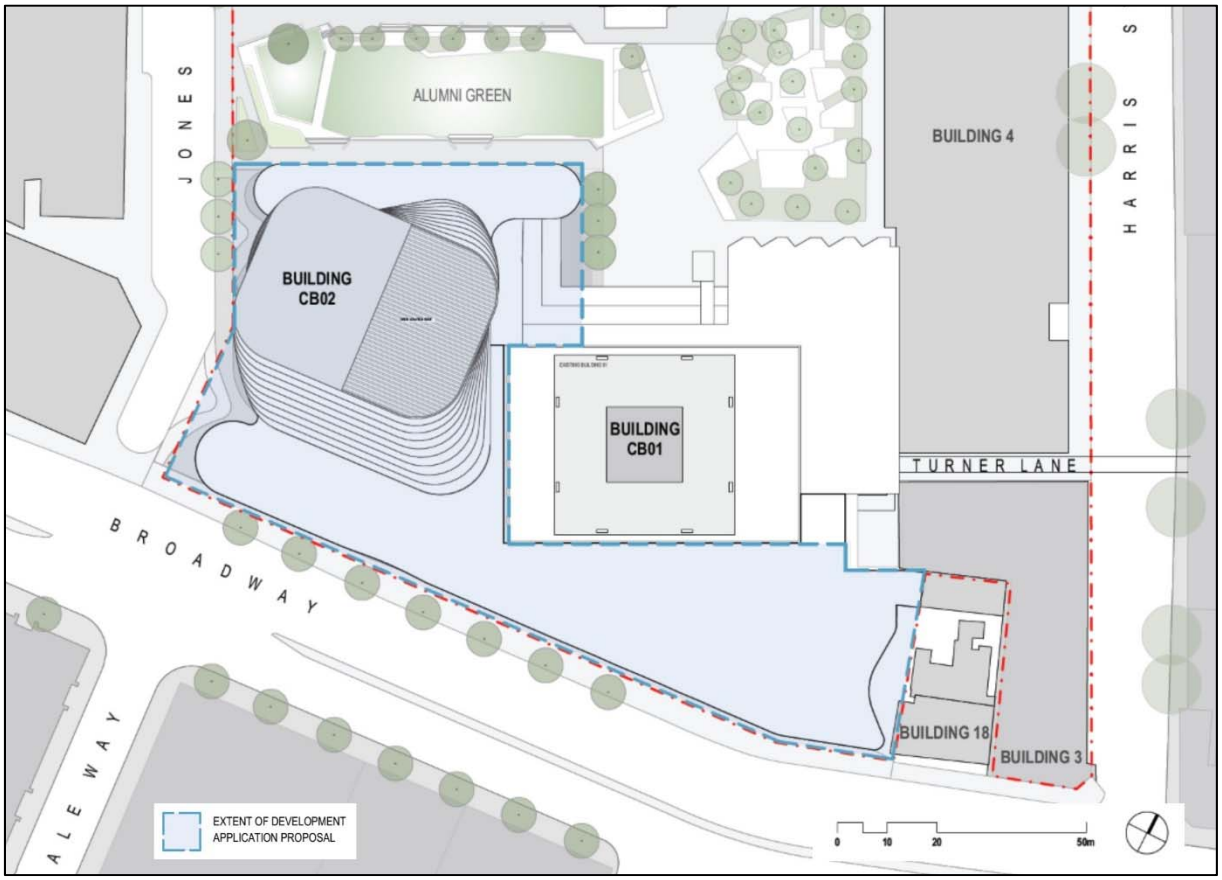

Figure 6: Proposed site layout *(source: the applicant)*

Figure 7: Visual perspective of UTS Tower and the proposed podium from Broadway *(source the applicant)*

Figure 8: Visual perspective of the proposal from Chippendale Way *(source: the applicant)*

1.5 Project Need and Justification

The University projects student load to increase from the 17,100 full time equivalent students enrolled in 2014 to 19,500 in 2020 and additional floor space is required to accommodate this projected growth. The redevelopment of Building 2 and extension of Podium 1 is the final stage of the redevelopment of the Broadway Precinct and would maximise the potential of the site and continue to deliver growth within the tertiary education sector in NSW. The additional facilities would ensure that NSW continues to attract a greater number of lecturers, researchers and students.

The proposal would continue the University's recent delivery of contemporary and unique buildings. It would deliver a revitalised front entrance to the University and also an improved interface with the public domain. The new Building 2 and extension of Building 1 podium would also improve permeability through the campus by providing a more legible main entrance and an integrated ground floor for Buildings 1 and 2, which are situated on the primary frontage of the University. It would accommodate a range of educational functions and provide world leading collaborative teaching and learning spaces to ensure the University remains competitive locally and globally.

The proposal is consistent with *A Plan for Growing Sydney* which identifies supporting the delivery of education-related land use and infrastructure within the Broadway and Camperdown Education and Health Precinct. The additional floor space would assist with delivering this priority for the Central Region.

2. STATUTORY AND STRATEGIC CONTEXT

2.1. SEPP (State and Regional Development) 2011

The proposal is classified as State significant development because it is development for the purpose of an educational establishment with a capital investment value (CIV) in excess of $30 million in accordance with Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011. Therefore the Minister for Planning is the consent authority.

2.2. Delegated Authority

In accordance with the Minister's delegation dated 16 February 2015, the Executive Director, Priority Projects Assessments can determine the subject application as Council has not objected to the proposal, no political disclosure statement has been made and less than 25 public submissions have been received objecting to the proposal.

2.3. Permissibility and Zoning

The site is zoned B4 Mixed Use under Sydney Local Environmental Plan 2012 (SLEP) and the proposal is permissible with consent. The proposal is consistent with the objectives of the zone as it seeks to expand an existing use that is compatible with and supported by the surrounding uses. The proposal is well integrated with the surrounding uses as the staff, students and visitors of the educational facility also support the surrounding uses. The proposal is also located optimally to benefit from accessibility to public transport.

2.4. Environmental Planning Instruments

The Department of Planning and Environment's (the Department's) consideration of relevant Environmental Planning Instruments (EPIs - including SEPPs) is provided in **Appendix B**. The proposal is consistent with the relevant requirements of the EPIs.

2.5. Objects of the EP&A Act

Decisions made under the Environmental Planning and Assessment Act 1979 (EP&A Act) must have regard to the objects of the EP&A Act, as set out in section 5 of the Act (see glossary at **Appendix D**). The proposal complies with the objects of the EP&A Act as it would deliver additional education facilities to promote the social welfare of the State. The proposal also supports the orderly development of land within an existing university campus for social infrastructure, and thereby protecting the land for public purposes.

2.6. Ecologically Sustainable Development

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the *Protection of the Environment Administration Act 1991* (see glossary at **Appendix D**). Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

(a) the precautionary principle,
(b) inter-generational equity,
(c) conservation of biological diversity and ecological integrity,
(d) improved valuation, pricing and incentive mechanisms.

The Department has considered the project in relation to the ESD principles. The Precautionary and Inter-generational Equity Principles have been applied in the decision making process via a thorough and rigorous assessment of the environmental impacts of the project. The proposal is considered to be consistent with ESD principles as described in Section 6.5 of the applicant's EIS, which has been prepared in accordance with the requirements of Schedule 2 of the Regulation.

The proposal is located on a previously developed and disturbed site. It would not result in the loss of any threatened or vulnerable species, populations, communities or significant habitats. However, the development would result in the loss of 18 trees (including seven street trees), but this would be offset with the planting of 15 trees (consisting of 12 street trees and three trees on the rooftop terrace). The site is not subject to any known effects of flooding and is not subject to bushfires. The site is unlikely to be impacted by changes in sea level resulting from climate change.

The applicant has also identified that ESD initiatives have been incorporated into the design and construction of Building 2, which is aiming to achieve a 5 star Green Star rating, and that whilst the podium for Building 1 cannot be formally certified, it would also incorporate similar measures that would target the same rating. The ESD initiatives that are incorporated in the proposal include:

- 30 per cent reduction in greenhouse gas emissions through the use of a high-performance façade and high efficiency plant;
- 25 per cent reduction in potable water consumption through the use of water efficient fixtures, collection of rainwater, re-use of rainwater and capture and re-use of fire system test water;
- high quality internal environment through improved ventilation, localised occupant controls, low energy lighting;
- reduction of construction and operational waste and use of environmentally preferable materials; and
- water sensitive urban design solutions in the landscape treatment.

The Department has considered the development in relation to the ESD principles and is satisfied that the proposed sustainability initiatives would encourage ESD, in accordance with the objects of the EP&A Act and EP&A Regulation.

2.7. Environmental Planning and Assessment Regulation 2000

Subject to any other references to compliance with the Regulation cited in this report, the requirements for Notification (Part 6, Division 6) and Fees (Part 15, Division 1AA) have been complied with.

2.8. Strategic Context

The Department considers that the proposal is appropriate for the site given it:

- is consistent with NSW State Priorities to build infrastructure to support an extra one million people over the next 10 years and to ensure NSW residents have the best educational infrastructure;
- is consistent with *A Plan for Growing Sydney,* as it would be consistent with the priorities to support education infrastructure in the Broadway and Camperdown Education and Health Precinct;
- is consistent with *NSW Long Term Transport Master Plan 2012*, as it proposes to strengthen usage of existing public transport services by not providing additional car parking and thereby encouraging a modal shift away from private vehicle use and encouraging sustainable transport use;
- is consistent with *Sydney Cycling Future 2013*, as it excludes the provision of additional car parking and is supported by a campus wide cycling strategy to encourage a modal shift away from private vehicle use; and
- would provide direct investment in the region of approximately $278 million, which would support 239 construction jobs and 250 operational jobs.

2.9. Secretary's Environmental Assessment Requirements

The Environmental Impact Statement (EIS) is compliant with the Secretary's Environmental Assessment Requirements (SEARs) and is sufficient to enable an adequate consideration and assessment of the proposal for determination purposes.

3. EXHIBITION CONSULTATION AND SUBMISSIONS

3.1. Exhibition

In accordance with section 89F of the EP&A Act and clause 83 of the EP&A Regulation, the application and accompanying information was made publicly available for at least 30 days following the date of first publication. The Department publicly exhibited it from 12 May 2016 until 10 June 2016 (30 days):

- on the Department's website; and
- at the Department's Information Centre and City of Sydney Council's One Stop Shop.

The Department also advertised the public exhibition in the Sydney Morning Herald, The Daily Telegraph and the Central Courier on the 11 May 2016. The Department notified adjoining landholders and relevant State and local government authorities in writing.

The Department received a total of nine submissions during the exhibition of the application - five submissions from public authorities, including City of Sydney Council, and four submissions from the general public, including organisations.

A summary of the issues raised in the submissions is provided in the following sections.

3.2. Public Authority Consultation and Submissions

No public authority objected to the proposal, however, City of Sydney Council, Roads and Maritime Services (RMS), Transport for NSW (TfNSW), the Environment Protection Authority (EPA) and the Heritage Division of the Office of Environment and Heritage (OEH) provided comments for consideration in the Department's assessment of the application. A summary is provided below.

City of Sydney Council (Council) provided the following comments for consideration:

- the request for exemption from development contributions is not accepted;
- the footpath along Broadway is heavily congested and further analysis of pedestrian movement is required to demonstrate that public pedestrian safety can be maintained;
- the bus stop should be relocated further west to provide a larger waiting area if public safety along Broadway cannot be maintained;
- the building entry adjacent to the Jones Street intersection and surrounding area should be level to improve permeability and reduce overcrowding;
- a daylight report and further analysis of overshadowing should be undertaken to ensure adequate solar access can be maintained for the surrounding residential buildings, including consideration of potential impact on heliostat solar collectors;
- wind impacts on Broadway, Jones Street and Alumni Green should be assessed;
- acoustic impacts of any proposed wind turbines should be assessed;
- the building should be designed to provide legible building entries and integrated services areas, including potential substation and rooftop plant;
- bus stop facilities should be upgraded, including way-finding signage;
- additional bicycle spaces and end-of-trip facilities should be provided;
- pedestrian/cyclist linkages should be improved, including pedestrianisation of Jones Street south of Thomas Street, separated cycleway on the southern side Mary Ann Street between Jones Street and the Goods Line; and widening of the shared path along Broadway;
- the pedestrianisation of Jones Street should be incorporated as part of the application given the proposal is the final stage of the concept plan;
- a sustainable travel plan should be prepared and identify projected modal targets, which should be consistent with Sustainable Sydney 2030, and identify how these targets can be achieved;

- a Construction Pedestrian and Traffic Management Plan must be prepared in consultation with Council and the Transport for NSW CBD Co-ordination Office to address the cumulative impacts from the construction projects within the vicinity of the site;
- a revised Loading Management Plan should be provided;
- any paving on Council's land will require further approval from Council;
- flood levels need to be provided to confirm that the site is at, or below flood levels;
- northern roof terrace on Level 8 should include seating areas and additional tree planting to improve useability;
- detailed landscape plans should be provided and should identify tree species consistent with Council's policies for planting along Broadway and Jones Street;
- further consideration of ESD in the design is required, including heat load and heat loss resulting from a predominantly glazed façade, potential use of integrated solar photovoltaics and harvesting rainwater for re-use; and
- public art installation should be provided in accordance with Council's guidelines.

Roads and Maritime Services (RMS) provided the following comments for consideration:

- the temporary re-opening of Jones Street for construction vehicle access is acceptable subject to a traffic controller being present for the duration of the works and retention of the footpath and pedestrian priority;
- further consultation with RMS and relevant stakeholders is required for Phase 2 construction works for access;
- the swept path of the longest vehicles entering/exiting the site and manoeuvring within the site must be in accordance with AUSTROADS and a plan demonstrating compliance must be submitted to RMS and the Transport for NSW CBD Co-ordination Office;
- all demolition and construction vehicles must be contained within the site;
- a Road Occupancy Licence is required for any works that may impact on traffic flows on Broadway and Harris Street; and
- the applicant is responsible for all works, including any utility upgrades/ adjustments, and associated costs.

Transport for NSW (TfNSW) provided the following comments for consideration:

- the foundations and building loads may impact on the structural integrity and operation of the CBD Metro corridor;
- the temporary re-opening of Jones Street for construction vehicle access may impact bus services operating along Broadway and further consultation with RMS and the Transport for NSW CBD Co-ordination Office should be undertaken to determine access arrangements and minimise impact on bus services;
- further consideration of the Phase 2 construction impacts need to be provided and traffic analysis is required for construction works where there is an anticipated peak of 110 truck movements per day and mitigation measures identified;
- a swept path analysis for both phases on construction is required;
- further assessment of the additional pedestrian movements and impact on pedestrian infrastructure is required;
- end-of-trip facilities for cyclists should be provided in the new building; and
- conditions of consent for managing potential impacts on the future rail corridor and construction traffic impacts should be included if approved.

Environment Protection Authority (EPA) provided the following comments for consideration:

- demolition and construction works are to be undertaken in an environmentally sensitive manner;
- the removal of the underground petroleum storage systems is to be undertaken in accordance with the relevant guidelines and validation provided after the tanks have been removed;

- an unexpected finds protocol should be developed and implemented;
- Safework NSW should be consulted regarding any handling of asbestos waste;
- construction impacts are to be managed in accordance with the relevant construction noise and vibration guidelines and undertaken within the standard construction hours, including truck arrivals;
- respite periods should be provided for the nearby sensitive receivers where construction activities with annoying or intrusive characteristics are being undertaken;
- dust, erosion and sediment controls should be implemented during construction to prevent pollution from leaving the site;
- waste is to be assessed, classified and managed in accordance with guidelines and no concrete waste or rinse water is to be disposed of on the site;
- the noise assessment has not adequately established background noise levels as background noise monitoring was undertaken on the site instead of at the receivers;
- loading dock should be restricted to daytime hours;
- noise monitoring should be undertaken during commissioning of the new building to confirm that noise impacts have been adequately mitigated and do not exceed the predicted levels;
- consultation should be undertaken with the EPA to determine whether the uses in the new building would require any modifications to the University's existing 'radiation management licence'; and
- clarification should be provided on whether any clinical or related waste would be handled, stored, transported or disposed of as a result of the development and relevant guidelines are to be complied with if such waste is present on the site.

Heritage Division of the Office of Environment and Heritage (OEH) provided the following comments for consideration:

- significant building fabric and elements are to be protected during construction works, including vibration monitoring;
- areas previously identified as having historical archaeological potential should be investigated by a suitably qualified and experienced excavation director before works commence; and
- if archaeological excavation is necessary, an excavation methodology and archaeological research design should be prepared in consultation with the Heritage Council of NSW, and the results of any investigation documented in a final excavation report and submitted to the Heritage Council of NSW.

The Department has fully considered the issues raised in submissions in its assessment of the development as detailed in Section 4 of this report.

3.3. Public Submissions

The Department has received three submissions from the executive committees of the residential buildings located to the south of the site within Central Park, which raised issues with the proposal, and one submission from the general public which supported the development. The issues raised in the submissions include:

- demolition noise;
- dust from demolition and construction works and costs associated with additional maintenance as a result of the dust;
- construction traffic management and pollution as a result of heavy vehicle traffic; and
- sun glare from the glazed facades.

The Department has fully considered the issues raised in submissions in its assessment of the development as contained in Section 4 of this report.

3.4. Applicant's Response to Submissions

The applicant has provided a response to the issues raised in submissions on 4 August 2016. The response included:

- further justification for design variations to the competition winning podium design and demonstration that design excellence has been achieved;
- analysis of pedestrian movement along Broadway, including conclusion that the setback would result in an overall improved pedestrian environment and acceptable levels of service can be maintained;
- further analysis of the overshadowing impacts; and
- further justification for exemption from development contributions, including advising that the University intends on undertaking the Jones Street pedestrianisation upgrade works subject to a future design solution to be prepared in consultation with Council.

The applicant's Response to Submissions (RtS) was forwarded to Council and public authorities for comment.

Council was generally satisfied with the applicant's responses, however, considered that bus stop facilities and wayfinding signage should be upgraded and the demand for bicycle parking and amenities generated by the proposal should be delivered with the current application. Council also provided recommended conditions of consent.

TfNSW advised that the level of service of pedestrian movement along Broadway is likely to be lower than that assessed, as the pedestrian capacity assessment assumed an even distribution of pedestrians along the footpath and did not account for the bunching at traffic signals. TfNSW recommended that mitigation measures to address pedestrian movement be prepared in consultation with TfNSW. TfNSW also provided recommended conditions of consent in relation to protection of the future rail corridor and further consultation with TfNSW's CBD Coordination Office in preparation of construction pedestrian and traffic management measures.

The Department has fully considered the applicant's response to issues raised in submissions in its assessment of the development as detailed in Section 4 of this report.

4. ASSESSMENT

4.1. Section 79C Evaluation

Table 2 identifies the matters for consideration under section 79C (see glossary at **Appendix D**) that apply to State significant development, in accordance with section 89H of the EP&A Act. The table represents a summary for which additional information and consideration is provided for in Section 4 (Key and Other Issues) and relevant appendices or other sections of this report and the EIS, referenced in the table.

The EIS has been prepared by the applicant to consider these matters and those required to be considered in the SEARs and in accordance with the requirements of section 78(8A) of the EP&A Act and Schedule 2 of the EP& A Regulation.

Table 2: Section 79C(1) Matters for Consideration

Section 79C(1) Evaluation	Consideration
(a)(i) any environmental planning instrument	Complies - see **Appendix B**
(a)(ii) any proposed instrument	Not applicable
(a)(iii) any development control plan	See **Appendix B***
(a)(iiia) any planning agreement	Not applicable

Section 79C(1) Evaluation	Consideration
(a)(iv) the regulations	The development application satisfactorily meets the relevant requirements of the EP&A Regulation, including the procedures relating to development applications (Part 6 of the EP&A Regulation), public participation procedures for SSD's and schedule 2 of the EP&A Regulation relating to environmental impact statements. Refer to discussion at Section 2.7.
(a)(v) any coastal zone management plan	Not applicable
(b) the likely impacts of that development	Appropriately mitigated or conditioned - refer to Section 4.2
(c) the suitability of the site for the development	Suitable - Refer to Sections 2.8 and Section 5
(d) any submissions	Refer to Sections 3.2 and 4.2
(e) the public interest	Refer to Section 4.2.4
Biodiversity values exempt if: (a) On biodiversity certified land (b) Biobanking Statement exists	Not applicable

* Under clause 11 of the SRD SEPP, development control plans do not apply to State significant development. Notwithstanding, consideration has been given to relevant Development Control Plans at Appendix B.

4.2. Key and Other Issues

The Department has considered the EIS, the issues raised in submissions and the applicant's response to these issues in its assessment of the proposal. The Department considers the key issues to be:

- built form and urban design;
- environmental and residential amenity impacts; and
- transport impacts.

The concept plan approval (MP 06_0116) for the site set out a number of requirements and parameters for future applications in developing the Broadway Precinct of the UTS City Campus in relation to the above key issues.

In accordance with the transitional arrangements for the repeal of Part 3A, set out in Schedule 6A of the EP&A Act, a consent authority must not grant consent under Part 4 for a development unless it is satisfied that the development is 'generally consistent' with the terms of the approval of the concept plan.

The Department has therefore assessed the proposal in accordance with the approved concept plan. Key requirements are discussed further in the relevant sections below. The Department's assessment of other parameters of the concept plan are set out in detail at **Appendix C**.

4.2.1. Built Form and Urban Design

4.2.1.1 Buk and scale

The proposal comprises the construction of a 15 storey building, including a plant level, to the west of Building 1, with a five storey podium that would extend through to a new four storey podium for Building 1. The proposal would be situated over two existing basement levels under Buildings 1 and 2 and have frontages to Broadway and Jones Street. The proposal is intended to be a contemporary and flexible building containing collaborative spaces including a library, lecture theatre, teaching spaces, research spaces, student centre, offices and various study areas. **Figures 9** to **11** show the Broadway, Jones Street and Alumni Green elevations of the new building.

The proposed building has an irregular and unique shaped footprint and form. **Figures 7, 8, 12** and **13** show the building in perspective when viewed from the surrounds and illustrate the twisting form of the Building 2 tower component. The building would fill in the foreground area in front of Buildings 1 and 2 and be built up to the site boundary along Broadway and Jones Street at the podium levels with articulation achieved through a curvilinear form along Broadway and recessed elements along Jones Street. The tower for Building 2 will then be setback from the boundaries and Building 1 tower (UTS Tower). The floorplate reduces in size and increases the separation from UTS Tower as the building rises and results in a unique and twisting tower that shifts from aligning with all edges of the site to a final remaining orientation to the Broadway alignment. The curvilinear form of the podium façade along Broadway and the twisting tower provide significant external visual interest, especially in contrast to the existing rectilinear brutalist UTS Tower.

At the ground level, the podium will be setback from Broadway to allow for improved pedestrian movement and circulation around the main entrance and along Broadway. The ground level of the podium has been designed to be open and flexible with lobbies to the multiple entrances whilst also providing exhibition spaces and learning areas.

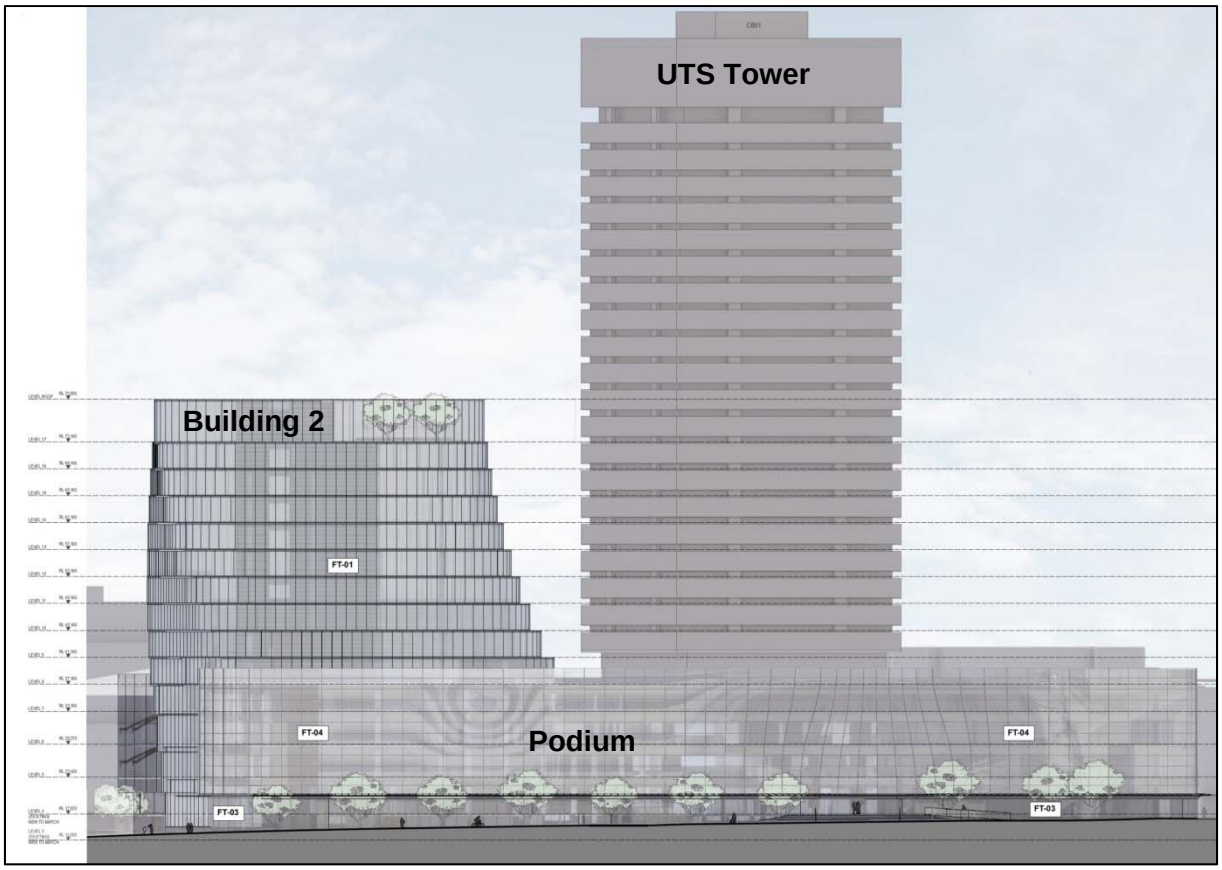

Figure 9: Broadway (south) Elevation *(source: the applicant)*

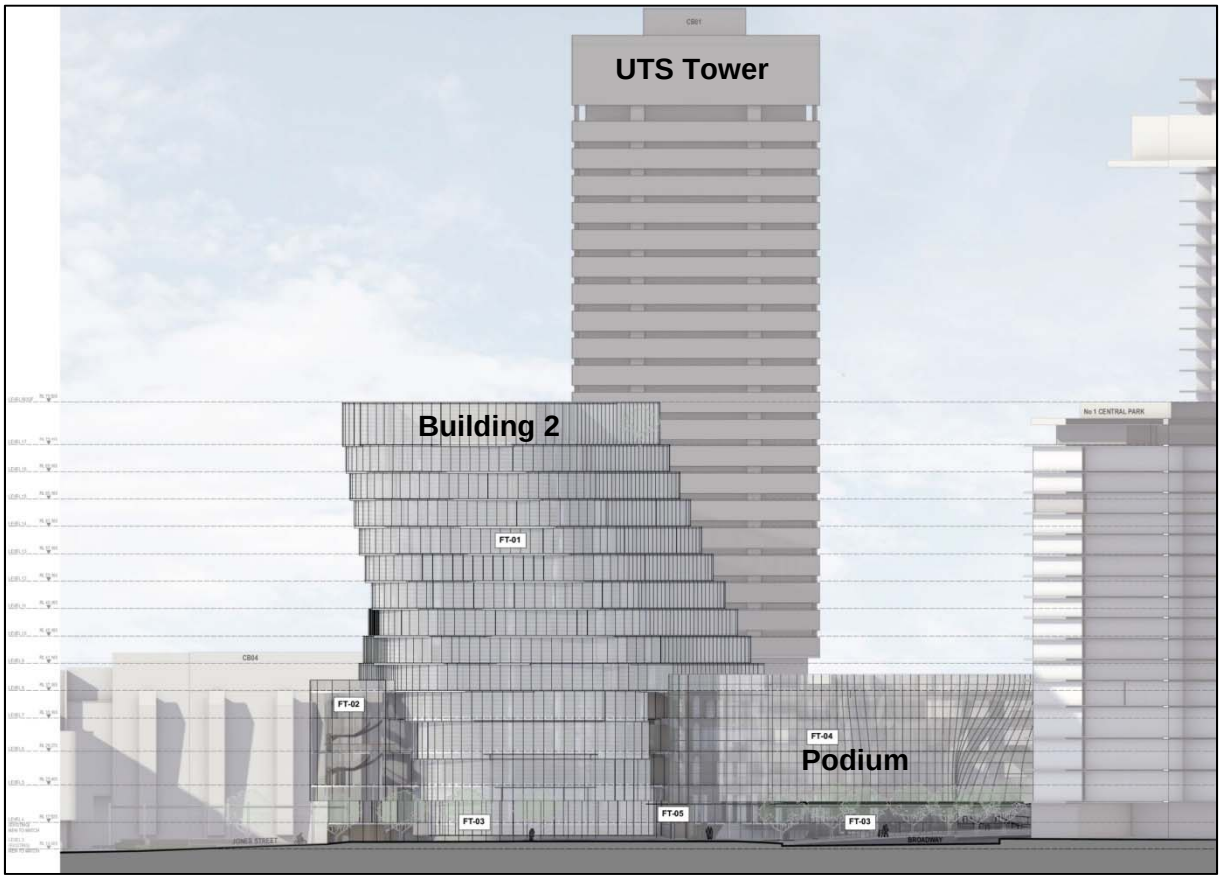

Figure 10: Jones Street (west) Elevation *(source: the applicant)*

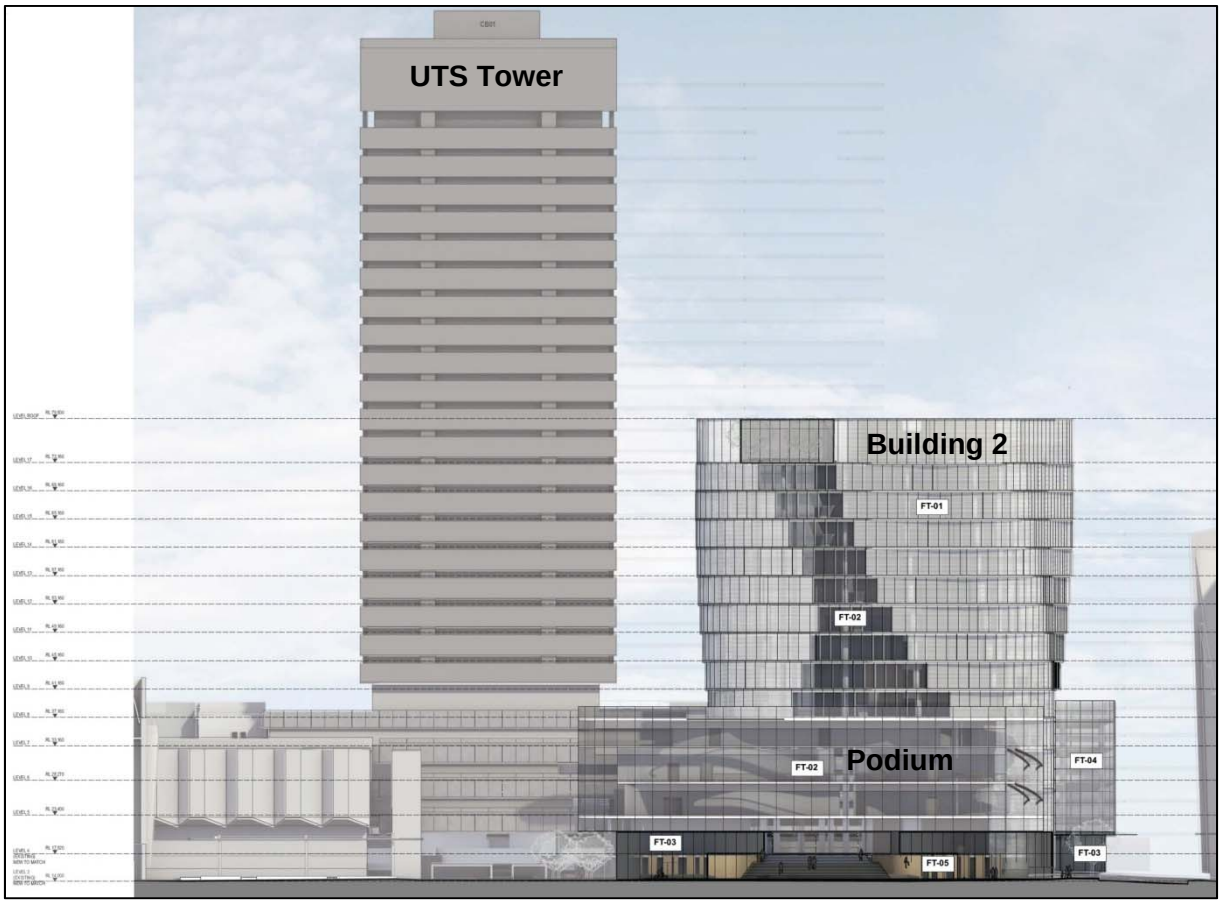

Figure 11: Alumni Green (north) Elevation *(source: the applicant)*

Figure 12: Perspective view of Building 2 from Alumni Green *(source: the applicant)*

Figure 13: Perspective view of Building 2 from Jones Street *(source: the applicant)*

The podium levels will extend across the forecourt and encompass the area currently covered by the existing Building 2, which would be demolished as part of this proposal. A more slender tower component would extend above where Building 2 is situated alongside the existing UTS Tower. The Building 2 tower will have a wider base that aligns with the edges of the block and progressively narrows to form a more slender tower that will be orientated towards Broadway to allow the UTS Tower to be viewed distinctly from wider contextual viewpoints.

The proposed floorplates of the podium levels are generally consistent and modulated to achieve visual interest and to break up the massing whilst the tower levels have more linear edges but reduce in size as the building rises to minimise the massing. **Figures 14** to **17** illustrate the floor plates of Level 4 (ground level), Level 7 (uppermost podium level), Level 8 (base of tower) and Level 16 (uppermost level of tower), highlighting the modulated podium form and the linear edges of the tower floorplates and the contrast of the building within the two elements. At levels one to seven the podium would be integrated, enabling internal pedestrian connections between the two buildings. Levels 1-2 and part of Level 3 are existing basements levels situated below Buildings 1 and 2 and the forecourt area of these buildings.

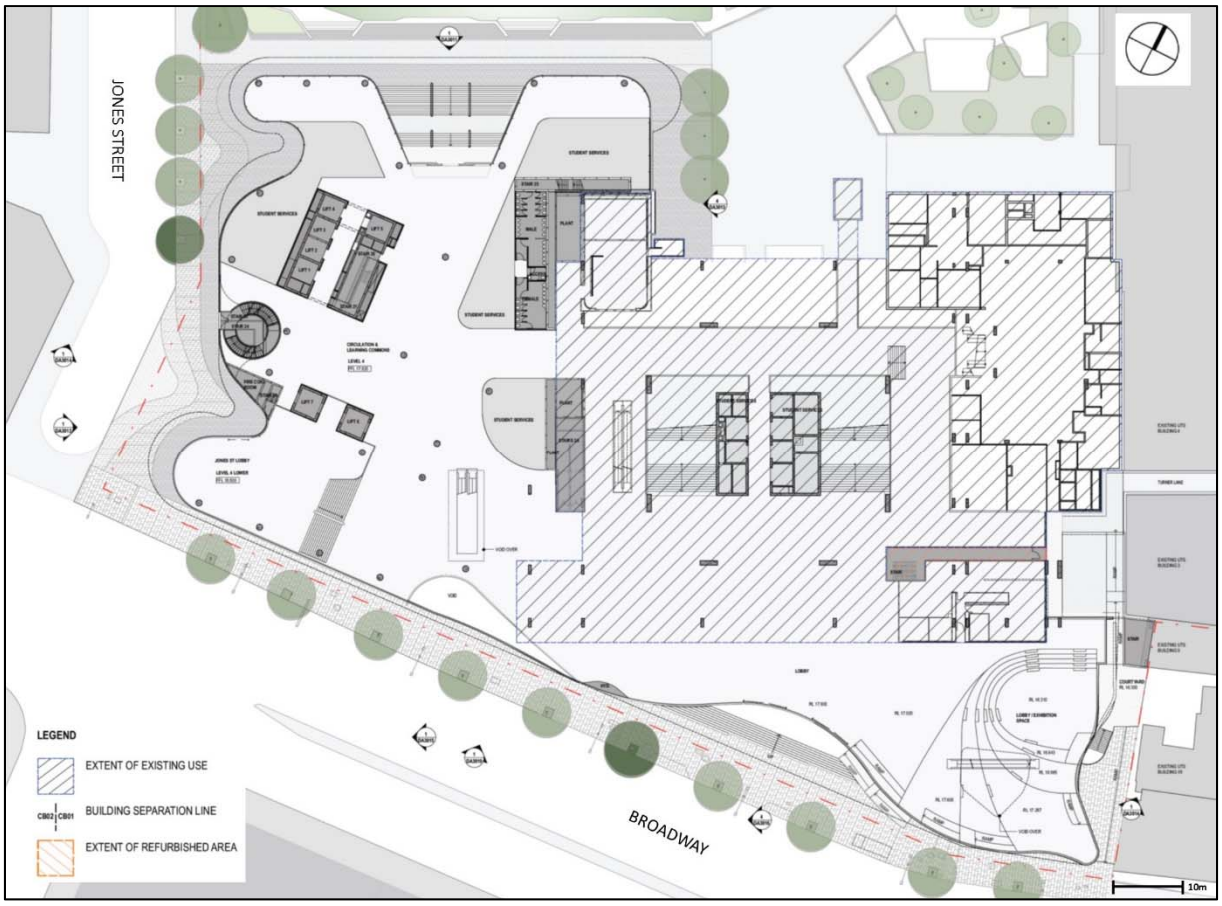

Figure 14: Ground Level Floor Plan *(source: the applicant)*

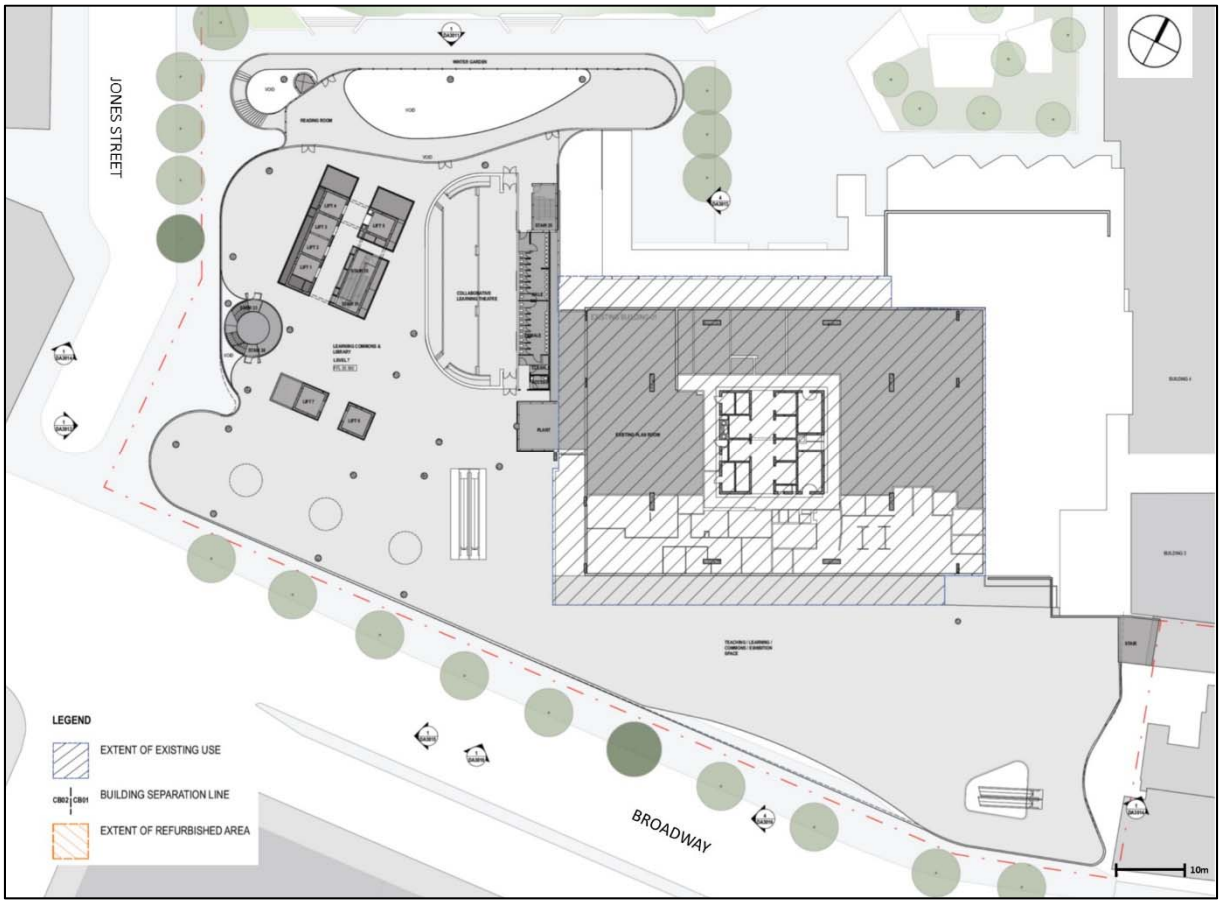

Figure 15: Level 7 Floor Plan (uppermost podium level) *(source: the applicant)*

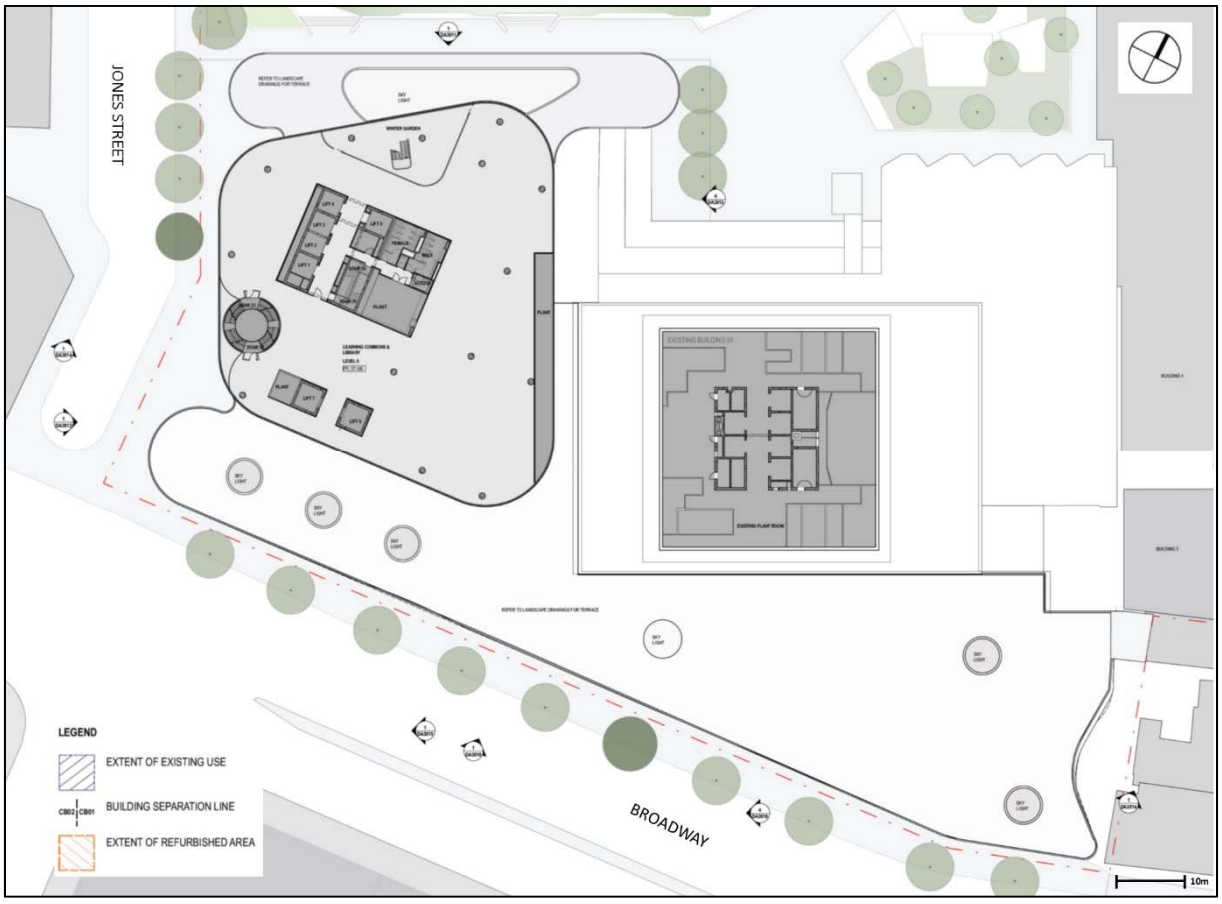

Figure 16: Level 8 Floor Plan (base of tower) *(source: the applicant)*

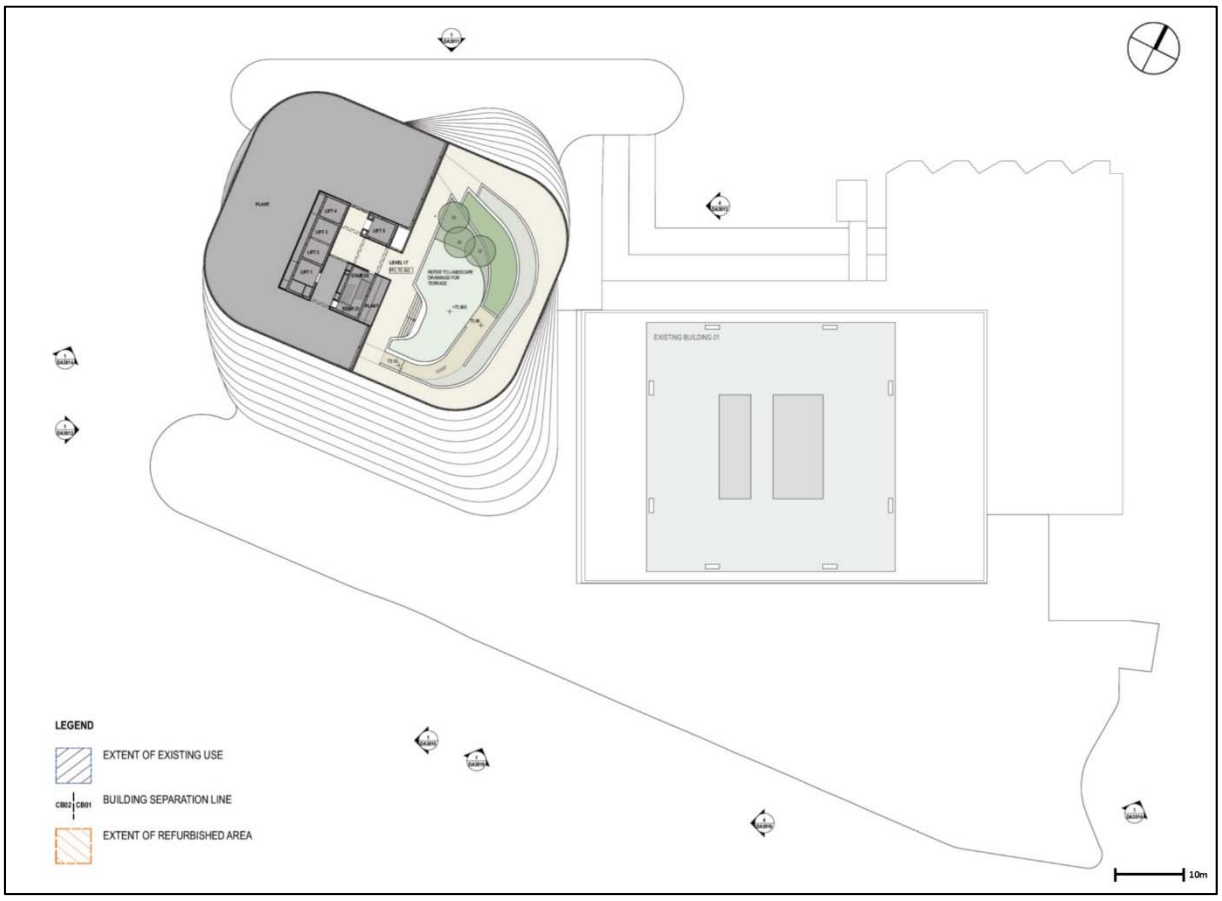

Figure 17: Level 16 Floor Plan (uppermost tower level) *(source: the applicant)*

The proposal has an overall maximum height of 65.5 metres (RL 79.5) and maximum podium height of 23.16 metres (RL 37.16). The concept plan prescribes a maximum height of RL 79.5 for Building 2 and RL 45.09 for the joint podium.

The proposed GFA for Building 2 is 39,233 sqm and 6,917 sqm for the Building 1 podium, resulting in a total GFA of 46,150 sqm. The maximum gross floor area (GFA) allowed under the approved concept plan for Building 2 is 60,357 sqm and 4,050 sqm for the Building 1 podium extension, totalling 64,407 sqm.

The proposal therefore generally complies with the bulk and scale controls in the approved concept plan. The proposal is situated wholly within the building envelope identified in the concept plan for Buildings 1 and 2 as shown in **Figures 18** and **19**.

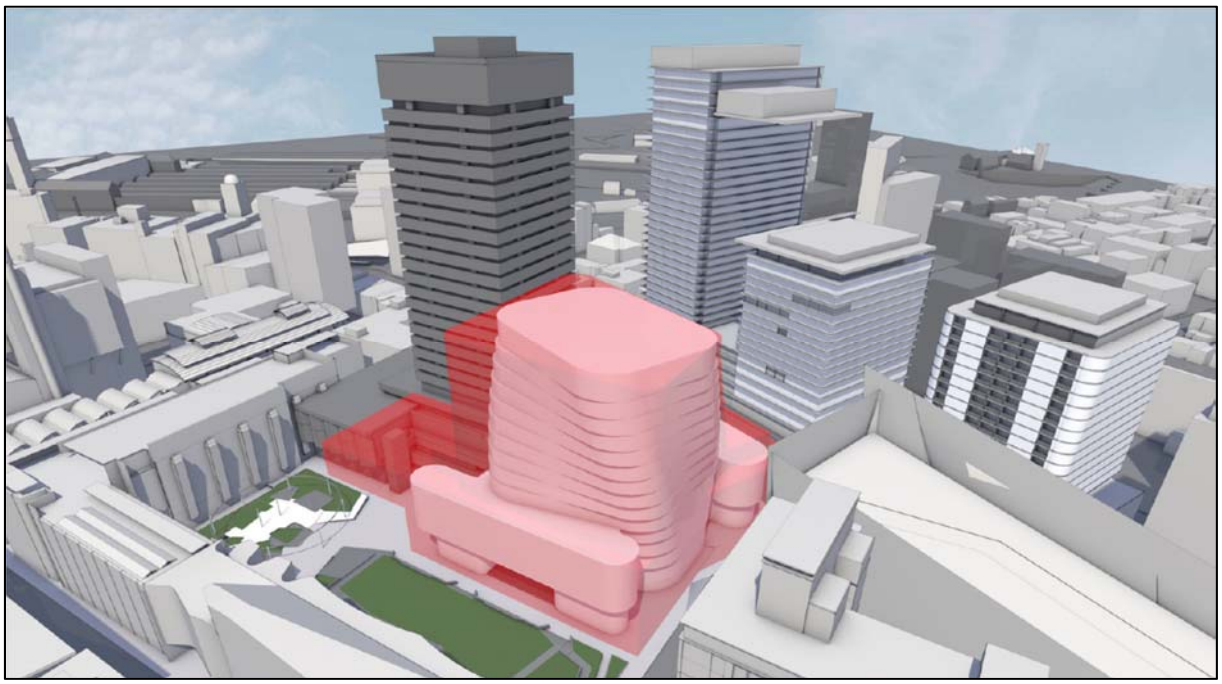

Figure 18: Aerial view of proposed building mass (pink) within approved envelope (red) *(source: the applicant)*

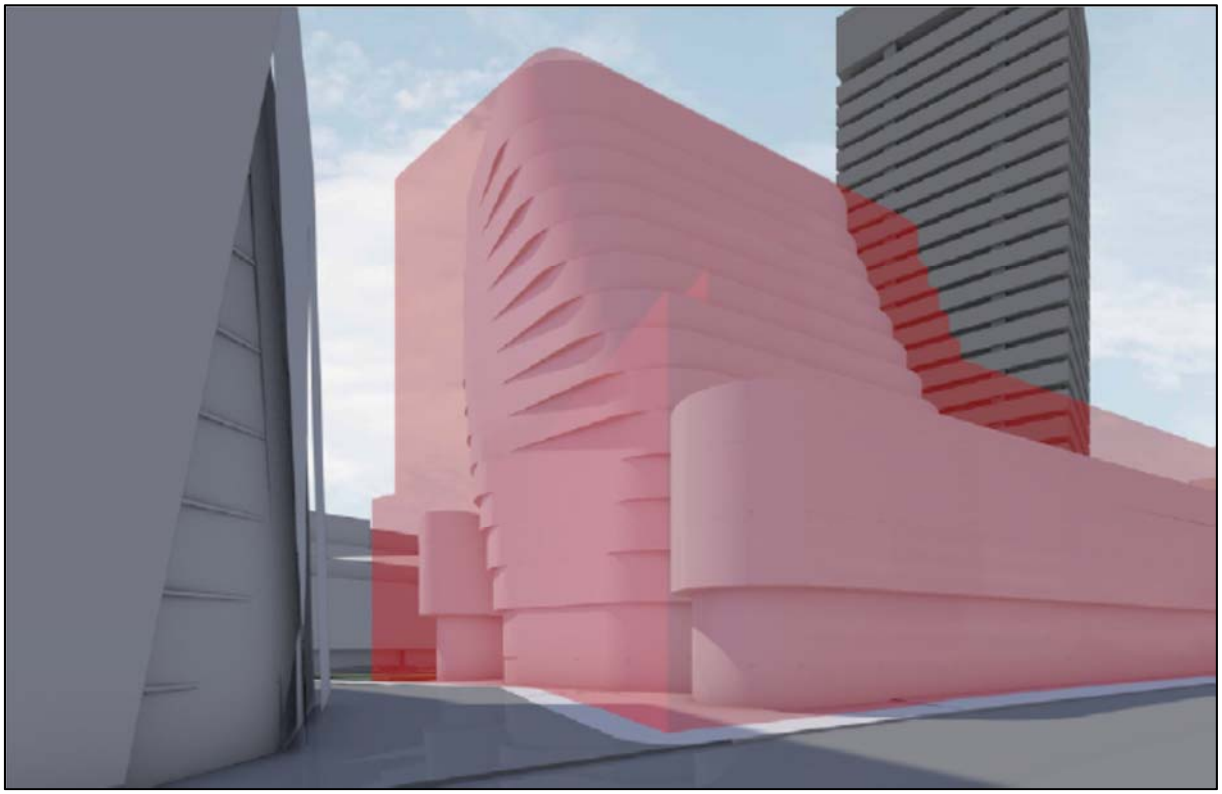

Figure 19: View from Broadway of proposed building mass (pink) within approved envelope (red) *(source: the applicant)*

The Department is satisfied that the proposed massing meets the controls in the approved concept plan and is suitable for the site.

4.2.1.2 Design Excellence

The proposal is located on a prominent frontage and would establish a new identity at the main entrance to the campus. The urban design principles for the concept plan stipulate that development should demonstrate high quality design and:

> *"Achieve design excellence. UTS is committed to achieving design excellence on the campus through a design competition process or direct appointment of a renowned architect with a record of achieving design excellence."*

The SLEP would also have required that the proposal demonstrates design excellence and that a design competition be held for the proposal given its height and scale. The design excellence provisions of the SLEP do not strictly apply to the proposal as the concept plan prevails in the event of any inconsistency with the SLEP pursuant to the savings and transitional provision in Schedule 6A of the EP&A Act. The concept plan specifically addresses design excellence in the Statement of Commitments and the urban design principles.

The Statement of Commitments in the concept plan also committed to using *Lacoste + Stevenson* as the architects for the podium design, which was subject to a former design competition process, and *FJMT* for Building 2. A commitment was also made to adopting the design quality controls that form part of the modified concept plan. The Department was satisfied that there would be adequate measures to ensure design excellence would be demonstrated without the need for a competitive design process. The SEARs also require the applicant to demonstrate how the proposal exhibits design excellence and how the proposed design for Building 2 tower integrates with the *Lacoste + Stevenson* podium design.

In the Minister's consideration to modify the concept plan to allow for the Building 2 tower, the Minister was satisfied that the architects selected (*FJMT*) were of a high calibre with a record of delivering design excellence. The revised design excellence provisions for the concept plan were sufficient to support exempting Building 2 from undertaking a competitive design process, subject to demonstrating the integration of the 15 storey Building 2 tower with the *Lacoste + Stevenson* competition winning podium design. The Department noted that the NSW Government Architect (GA) would be reviewing the design to ensure that the requirements were being met.

Design Integration and Integrity of Competition Winning Podium Design

The Department referred the application to the GA to seek advice on whether design integrity of the winning design for the podium had been maintained and whether the Building 2 tower design was well integrated with the podium design.

The GA generally supported the design of the proposed Building 2 and noted the curvilinear geometry and offsetting of levels incrementally increases the setback of the new tower from the existing and architecturally significant UTS Tower. The proposed design improves the legibility of Building 1 as a standalone object, improving key contextual views such as that from Sydney University down Broadway, when compared to the envelope. The relationship of the curvilinear geometry to the design principles of the podium competition winning scheme is also supported.

The GA considered the following positive elements would need to be maintained in the detailed design:

- the operable awning windows that form part of the clear flush glazing used for the central north facing 'winter gardens' as it would be integral for natural ventilation and to achieve the indicated indoor / outdoor quality and environmental performance; and

- the material quality and detailing of the façade, including the relationship of each 'slipped' slab to the next, and the curvature of the glass, as they are critical to achieving the flowing form, lightness and transparency of the design.

The GA identified that the *Lacoste + Stevenson* competition winning podium design included the following notable elements:

- a soft and curvilinear glazed 'veil' with a ceramic frit and a series of service columns described as 'lace columns', intended to be fabricated from sheet steel and to undertake a range of functions including vertical structure, circulation, natural lighting, wind turbines and in some cases sunken gardens;
- internal planning that emphasises the location of open and public functions along the Broadway façade to provide activation and a sense of 'learning on show' facilitated by its southern orientation that enables clear glass, including setting back enclosed areas away from the façade;
- a large 'outdoor room' that addresses Alumni Green;
- an entry that is centred on the existing Building 1 foyer, with secondary entry provided from Jones Street to the west; and
- a glazed skin along Broadway with a white ceramic frit portraying an image of a forest of trees and a denser translucent frit at the main entry to allow for projected images.

The GA considered the proposed design of the Building 2 tower generally integrates well with the competition winning podium scheme, however the design integrity of the podium appears to have been compromised. The proposed podium design retains in principle the curvilinear form and curved glazed skin of the competition scheme, along with the forest ceramic frit. However, the quality of the curved forms have become less subtle, affecting the intended legibility of the scheme as a soft 'veil'. This is particularly evident at corners such as Broadway and Jones Street, where the original tight angular radius has been changed to a broad semi-circle form. This is similarly the case at the Jones Street to Alumni Green corner.

In addition to the loss of the soft 'veil', the GA considered the design quality and integrity with the competition winning design were compromised due to the loss of the 'lace column' elements and the positioning of enclosed areas (large Collaborative Learning Theatre across multiple levels) along the highly visible Broadway façade. It was also noted that the staging could impede the delivery of a cohesive final façade to Broadway and an independent design integrity panel would be appropriate to ensure delivery of the competition scheme and design excellence across the full project – podium and tower.

In the RtS, the applicant provided the following in response to matters raised by the GA:

- the 'lace column' elements were removed due to complexity and inter-connectivity of the existing structural systems of Building 1, which greatly limited the opportunity of integrating complex new structural systems;
- the Collaborative Learning Theatre is consistent with the principle of an open, activated façade along the Broadway elevation with glazing on the back wall and would prominently exhibit the pioneering innovative collaborative learning that is intended for these spaces;
- the curvilinear form is reinforced by the treatment of the corners of the podium and tower and the clear, activated and connected façade at ground level has been maintained in the proposed design;
- the frit patterning is intended to adhere to the vision in the competition winning scheme and would be further developed with the detailed design of the Broadway façade; and
- a continuous integrated Broadway façade has been carefully considered and a strategy of 'stitching' the façade has been developed (refer to **Figures 20** and **21**).

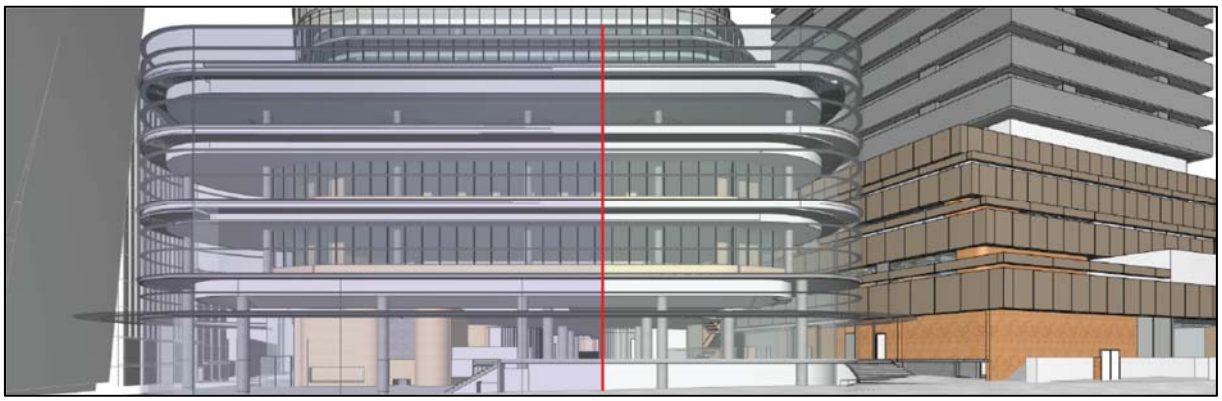

Figure 20: Broadway façade - Stage 1 *(source: the applicant)*

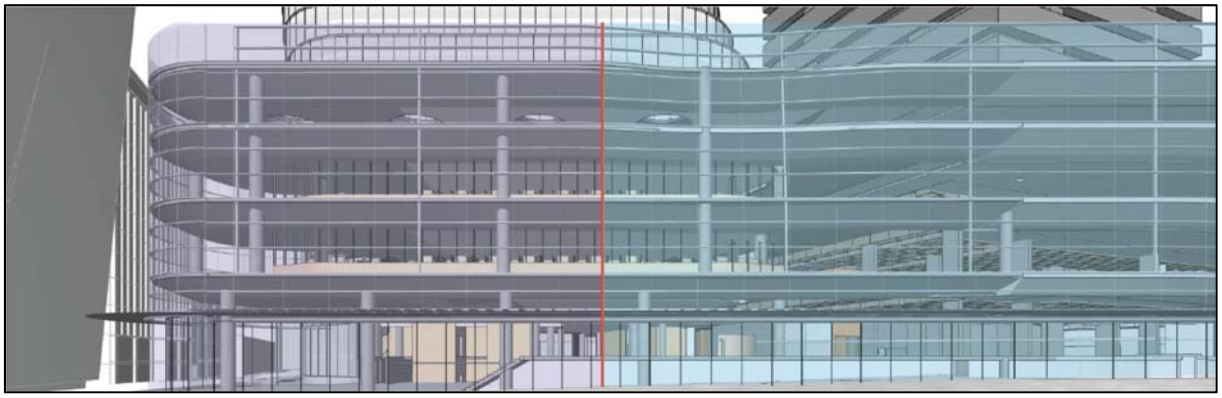

Figure 21: Broadway façade - Stage 2 *(source: the applicant)*

The applicant also advised that there would be adequate measures, including engagement of architects through the construction stages, review through various groups with UTS personnel and use of contractors which have delivered recent award winning buildings within the campus that have exhibited design excellence. The applicant also advised that the intent is to commence works on Stage 2 of the construction within 12 months of completion of Stage 1.

The GA reviewed the applicant's responses and concluded that the removal of the lace columns is attributed to cost. Whilst the GA concluded that the proposed concrete columns that will replace the lace columns have been adequately setback from the façade to ensure the lightness of the façade is retained, the built elements must be designed by the original competition winning architects, *Lacoste + Stephenson*. In relation to the Collaborative Learning Theatres, whilst the winning design sets back large enclosed function areas away from the façade to maintain access and visibility, the location of the theatres are acceptable as these spaces would ensure that teaching and learning is 'on display' and activation would be retained. Furthermore, these spaces require significant further design development.

The GA recommended that the podium façade, stage 1 and 2, be designed by *Lacoste + Stephenson* and that the design be reviewed by the GA when the detailed design is finalised. This is required as a number of the finer details relating to the critical elements of the podium design are still being resolved. The Department has recommended conditions to require the review of the design prior to commencing works at each stage of construction to ensure the aesthetics of the competition winning scheme are delivered.

Design Guidelines and Quality Controls

The concept plan also identified a number of design guidelines and controls for the future buildings. The Design Quality Controls for the Building 1 Podium and Building 2 are as follows:

- maximum height of 28.67 m for the Building 1 podium extension, 30 m for Building 2 podium at Broadway and 64.5 m for overall height of Building 2 at Broadway;
- refurbish the existing Building 1 forecourt to provide a new entrance to the campus;
- provide a multi-storey atrium with internal garden at the entry;
- provide pedestrian entries off Broadway, Jones Street, Alumni Green and Turner Lane;
- provide pedestrian protection along the length of the Broadway frontage and northern edge of the building with connections to Jones Street and Alumni Green;
- maximise permeability at the Broadway and Alumni Green entries through retail and student and public facilities and ensure permeability of the ground plane along Jones Street;
- provide an element of transparency in the building design to express functions within;
- provide screening to the existing northern terraces to improve functionality and activate the northern edge of the building at all levels;
- incorporate design solutions to address wind conditions;
- provide activation and pedestrian movement between Buildings 1 and 2;
- minimise overshadowing on the public domain and adjacent residential development;
- maximise opportunities for view sharing whilst recognising the site's CBD location;
- provide visual extensions to Alumni Green through the provision of green spaces on upper level terraces and roof spaces;
- setback floors above the podium from the Broadway Street wall;
- establish an appropriate relationship and setback to UTS Tower to support its appreciation and setting from wider viewpoints, including minimum setbacks of approximately 10.5 m – 13 m at Level 9 and approximately 14 m – 19 m at Level 17; and
- respond to the importance of the Balfour Street view corridor through:
  - preserving the openness of the corner of Broadway and Jones Street;
  - materiality; and
  - progressively stepping the building away from Jones Street above the podium.

The Department considers that the proposal generally meets these controls. The proposal responds to and respects the surrounding buildings and provides appropriate setbacks in accordance with the above controls. Transparency has been achieved through the use of light glazed façades and setting back solid structures, which allows the functions within to be displayed. The vertical winter gardens provided along the northern elevation provide visual interest and connectivity with Alumni Green and additional green space in conjunction with the podium and rooftop terraces. The proposal provides improved pedestrian protection and greater legibility with more prominent entries, in particular a more formal main entrance. The integrated podium will also improve permeability through the site and to Alumni Green.

The Department is satisfied that the building design meets the design controls for the site and is well integrated with the podium winning design.

Department's Conclusion

The Department considers that overall the building would present a visually interesting architectural form for the site. The design addresses the design quality controls in the concept plan and would generally meet the design excellence provisions of the SLEP. The design achieves:

- a high standard of architectural design with materials and detailing appropriate to reveal the education use and functions on the prominent frontage of the site in contrast to the existing solid and enclosed brutalist structures;
- a cohesive and distinctive building which relates positively to surrounding development;
- an improved public domain interface with the delivery of a podium at a scale appropriate for the pedestrian environment that is aligned with the site boundary, whilst still achieving

transparency to minimise its dominance along Broadway, particularly given the current irregular setback and extensive setback of the single main entrance;
- the delivery of a new and revitalised identity for the campus which is a key gateway to the Broadway and Camperdown Education and Health Precinct;
- a visually interesting building that provides an overall improved outlook;
- the delivery of pioneering teaching technologies and techniques on the most prominent frontage of the campus and at a gateway site;
- an improved pedestrian amenity with a clear consistent setback along Broadway and an awning to provide weather protection for pedestrians;
- an appropriate relationship with UTS Tower and Jones Street with the increasing setback of upper levels to provide a greater separation to the tower and respond to existing scale of development of the heritage significant building located north of the site, respectively;
- an appropriately scaled building as the bulk, massing and modulation for the site meets the controls for the site and is consistent with the form of the surrounding development and supports a transition along Broadway that responds to the site's peripheral CBD location;
- a development that balances the social and environmental impacts of the proposal and mitigates the overshadowing, visual, noise, wind and reflectivity impacts for the site as far as reasonably practicable;
- an ecologically sustainable development that will meet appropriate targets of a an industry best practice accredited rating scheme;
- improved permeability of the site particularly the pedestrian environment by confining vehicular and service access requirements to existing campus arrangements and prioritising pedestrian circulation requirements; and
- an improved landscape treatment along Broadway as well as integrated landscaping with the winters gardens providing connectivity with the main open space area on campus.

The Department is satisfied the development exhibits design excellence and would contribute to the ongoing delivery of design excellence across the campus.

4.2.2. Environmental and Residential Amenity Impacts

4.2.2.1 Private view impacts

The concept plan approval requires the design of Building 2, including orientation of the tower and separation between towers, to consider view sharing and the impacts on the outlook and views from adjacent residential units.

The Department notes that the residential apartments (existing and approved) and the hotel to the south of the site within Central Park currently enjoy a range of views including expansive city views and distant views of parts of Sydney Harbour and the Anzac Bridge on the horizon (in some instances) above the existing five storey Building 2 on the site. These views are interrupted in some instances by the existing UTS Tower and Faculty of Engineering Building. The proposal would result in a significant increase in the height and scale of Building 2 on the site and would therefore have an impact on views across the site. These impacts were considered in the approval for the enlarged building envelope for Building 2 as part of the concept plan modification.

The applicant provided a Visual Impact Assessment (VIA) as part of the EIS for the subject application. The VIA provides a comprehensive analysis of the view impacts of the proposal, in particular view loss at the affected premises to the south, and highlights the improvements achieved with a smaller building that is situated within the envelope. It takes into account the height and orientation of the existing buildings, their location and available view corridors across the top of other University buildings within the foreground and beyond. Reduced impacts are achieved for higher levels where the tapering of the building allows for the retention of a portion of the partial views to the CBD skyline and in some instances views to Barangaroo between the UTS buildings.

The following three buildings within Central Park would be most affected by the proposal (refer to **Figure 22**):

- Block 2 (East and West Towers);
- Block 1; and
- Block 4N.

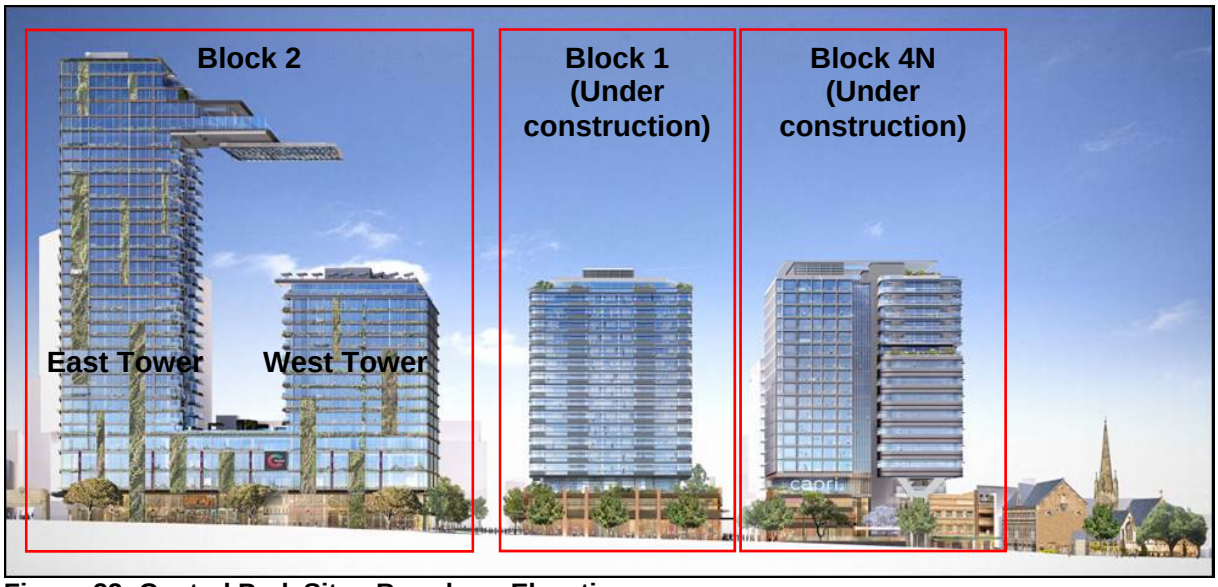

Figure 22: Central Park Site - Broadway Elevation
(source: Applicant's Response to Submissions for SSD 6554)

The VIA analysis identified 51 existing apartments would have their views highly obstructed by the proposal, and of these, 14 apartments are single aspect with no alternative views of the city and horizon line from their living rooms. The applicant concludes that the overall visual impact of the proposal on views is acceptable given the public interest of supporting the proposal and what is reasonable within the CBD context and overall public interest of the proposal.

In order to determine whether or not the proposed view sharing impacts are reasonable, the Department has followed a four-step assessment in accordance with the principles established by Tenacity Consulting Vs Warringah [2004] NSWLEC 140. The steps/principles adopted in the decision making process are:

1. assess what views are affected and the qualitative value of those views;
2. consider from what part of the property the views are obtained;
3. assess the extent of the impact (Tenacity principles establish a spectrum from 'negligible' to 'devastating'); and
4. assess the reasonableness of the proposal that is causing the impact.

An assessment of potential view impacts in accordance with the Tenacity principles is outlined below.

The Department has included in **Table 3** its consideration of the first three Tenacity steps for the properties to the south of the development site. Units located below Level 5 on Block 2 and Levels 7 on Block 1 and 4N were not considered as these units would have negligible view impacts from the proposal as views would already be blocked by the existing podiums.

Table 3: Private property view impacts – Cental Park site

Property	View Impacted	View Type	Department's View Impact Assessment
Block 2 East Tower – Eastern units above Level 17	Partial Anzac Bridge and horizon	Oblique front views	These units are situated above the height of the proposal. The proposal would have a **'negligible impact'** on these views. Views to the city skyline would be retained.
Block 2 East Tower – Central and western units above Level 17	Partial Anzac Bridge and horizon	Oblique front views	These units are situated above the height of the proposal. The proposal would have a **'negligible impact'** on these views. Partial views to the city skyline would be retained.
Block 2 East Tower – Eastern units between Level 5 and Level 17	Partial Anzac Bridge and horizon	Oblique front views	The proposal would have a **'minor impact'** on these views. Views to the city skyline would be retained.
Block 2 East Tower – Central units between Level 5 and Level 17	Partial Anzac Bridge and horizon	Oblique front views	The proposal would have a **'minor impact'** on these views. Partial views to the city skyline would be retained.
Block 2 East Tower – Western units between Level 5 and Level 17	Anzac Bridge and horizon	Oblique front views	These units would have views to Anzac Bridge and the horizon. The proposal would have a **'severe impact'** on these views. Partial views to the city skyline would be retained.
Block 2 West Tower – Eastern units above Level 5	Western edge of CBD, Anzac Bridge and horizon	Front views	The proposal would have a **'devastating impact'** on views to Anzac Bridge and horizon. Oblique partial views to city skyline would be retained. Upper levels retain a small portion of their view to Barangaroo.
Block 2 West Tower – Central units above Level 5	Western edge of CBD, partial Anzac Bridge and horizon	Front views	The proposal would have a **'devastating impact'** on the views. Upper levels retain a small portion of their view to Barangaroo.
Block 2 West Tower – Western units above Level 5	Western edge of CBD, partial Anzac Bridge and horizon	Front views	The proposal would have a **'devastating impact'** on views to the western edge of the CBD. Oblique partial views to the horizon to the west would be retained. The uppermost level would also retain views to Anzac Bridge.
Block 1 – Eastern units – Above Level 7 (under construction)	Partial City skyline	Oblique front views	The proposal would have a **'severe impact'** on these future views. Partial oblique views to the southern edge of the CBD and horizon to the east would be retained.
Block 1 – Central and western units above Level 16 (under construction)	Partial City skyline	Oblique front views	The proposal would have a **'moderate impact'** on these future views. Views to Darling Harbour and views to the top of the CDB skyline would be retained. Oblique views to the Anzac Bridge and horizon to the west would be retained.
Block 1 – Central and western units between Level 7 and 16 (under construction)	Partial City skyline	Oblique front views	Views are generally blocked by the Faculty of Engineering and IT Building and UTS Tower. The proposal would have a **'moderate impact'** on these future views.

Property	View Impacted	View Type	Department's View Impact Assessment
Block 4N – Above Level 16 (under construction)	Partial City skyline	Oblique front views	Views would already be largely blocked by the UTS Tower. Any views to Anzac Bride and horizon to the west would be unaffected by the modified building envelope. The proposal would have a **'moderate impact'** on these future views.
Block 4N – Between Level 9 and 16 (under construction)	Partial City skyline	Oblique front views	Views would already be largely blocked by the Faculty of Engineering and IT Building and the UTS Tower. Any views to the west would be unaffected by the modified building envelope. The proposal would have a **'negligible impact'** on these future views.

Note: Only north facing columns of units were considered in the above assessment

The views enjoyed by the existing and future residents are generally partial views given the interruptions by existing development, including the UTS Tower and the University's Faculty of Engineering and IT Building. The views to the city skyline would also be oblique views. In relation to the devastating view loss on front facing views for the units located immediately south of the proposal, these are currently partial views to the city skyline and the western edge of the CBD. The tapering of the building allows for the partial retention of views to Barangaroo on the upper levels. A high proportion of other units affected would retain oblique views to Anzac Bridge and the western horizon. Where views to Anzac Bridge and the western horizon are lost, the more highly valued views to the city skyline would be retained.

The fourth Tenacity step in considering the view impacts relate to the reasonableness of the impact with consideration of compliance with the development controls. The proposal is situated within the building envelope allowed under the concept plan.

Whilst the Sydney DCP 2012 does not apply to the site, the controls provide a reference with respect to the consideration of view impact in and near the CBD for residential units. The planning controls for development in the Sydney CBD recognise that outlook as opposed to views is the appropriate measure of residential amenity in the CBD context.

The Department considers that given the site's CBD fringe location, the interruption of existing views by University buildings, view loss is inevitable given the demand for social infrastructure and is reasonable in this context. The Department has considered potential alternative design approaches such as a shorter building which would result in some improvement to view loss impacts, but it would not provide an appropriate relationship with the existing UTS Tower, Alumni Green or Jones Street. It would also result in significant negative impacts on the building design quality and aesthetic. The Department also considers that any further reduction in scale of the building would fail to appropriately deliver the required additional educational floorspace. This is considered inequitable in terms of the State significance and strategic importance of this land for social infrastructure given it is the gateway to a centrally located and accessible education facility.

The proposal would provide a visually striking and interesting building and revitalisation of Building 1 and its interface with the public domain and would provide an improved urban outlook for residents. The Department also considers that view sharing can be maintained for a large proportion of the affected units as they would retain either partial views or enjoy alternate views to the Anzac Bridge/horizon to the west or southern or western edge of the CBD. The proposal is consistent with the form and scale of institutional development within the education precinct and contextually along Broadway by mirroring the transition in height achieved on the Central Park site.

On the basis of this assessment, and in light of the provision of a modern contemporary visually striking and innovative building, to complement the iconic UTS Tower, the Department considers that the proposal's impacts on existing views to be reasonable and acceptable.

4.2.2.2 Solar access impacts

The concept plan approval requires that a detailed overshadowing analysis must be provided to address the solar access impacts of Building 2. The design of the Building 2 must ensure that adequate solar access can be maintained at all residential units affected by overshadowing from Building 2.

The applicant has provided shadow diagrams which indicate there would be overshadowing of 52 residential units within Blocks 1 and 2 of Central Park located to the south of the site. Overshadowing would be restricted to the lower levels during mid-winter when overshadowing is most significant.

The overshadowing of Block 2 results in additional overshadowing between 30 mins to 90 mins during mid-winter of 25 units. However, all these units would retain a minimum two hours of solar access between 7.30 am to 4.30 pm in mid-winter, which was established as the accepted timeframe for assessment for solar access for this site when development approval was granted.

The most significant overshadowing impacts would be experienced by the residential units of Block 1. Block 1 already experiences a high level of overshadowing from existing UTS buildings – UTS Tower in the morning and the Faculty of Engineering and IT Building in the afternoon. A total of 32 units would be impacted by the proposal. The following provides a breakdown of how the units would be impacted between 7:30 am to 3 pm in mid-winter:

- 16 units that currently receive two hours of solar access would no longer receive two of solar access, however these units would maintain solar access levels between 30 mins to 90 mins during this period;
- 13 units that currently receive between 30 mins to 90 mins of solar access primarily to private open space areas during this period would no longer receive solar access during this period; and
- three units would retain two hours of solar access during this period.

Figures 23 to **31** illustrate the extent of overshadowing as a result of the proposal. In these figures, existing shadows are shown in grey; the shadow that is cast by the approved concept plan envelope is shown by the green outline; the shadow cast by the proposal is shown by the orange outline, with new shadowing shaded orange; and non-residential uses shaded purple.

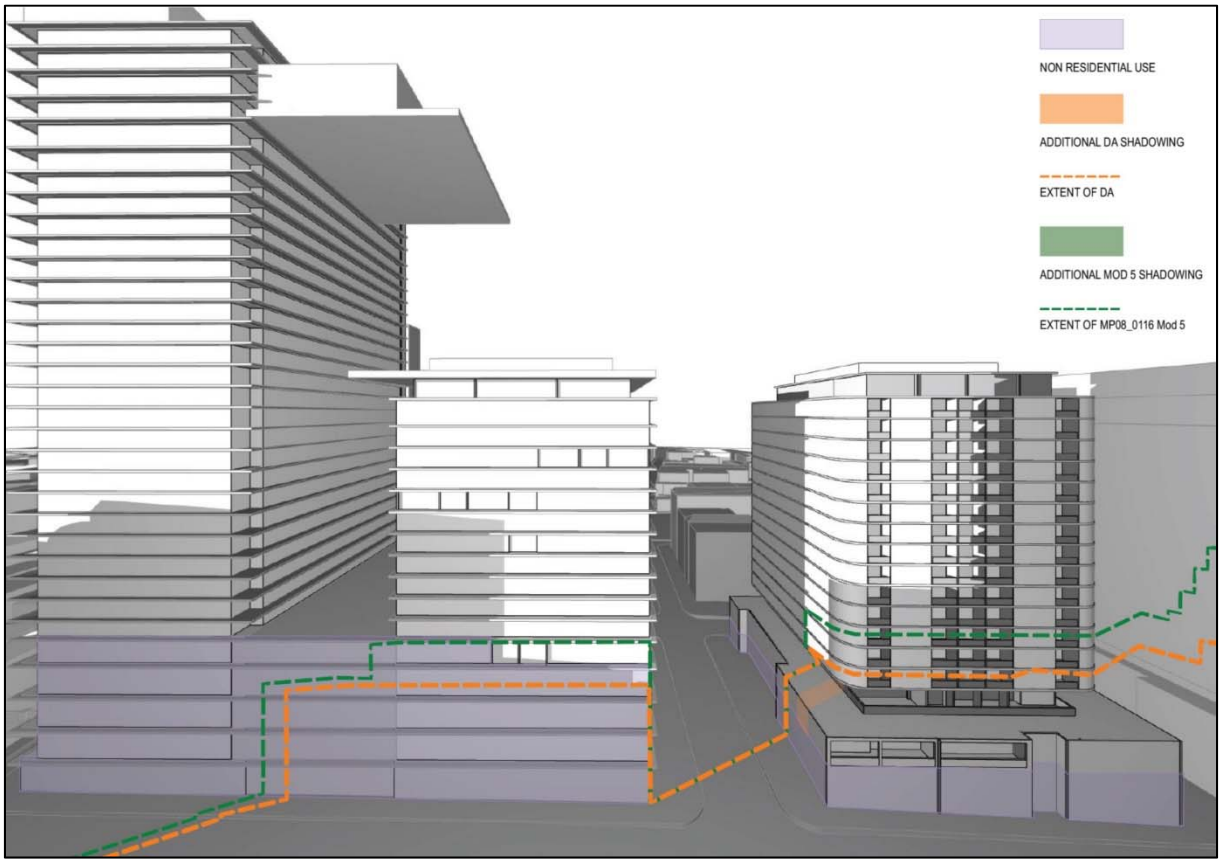

Figure 23: Overshadowing of Central Park units in mid-winter at 7.30 am *(source: the applicant)*

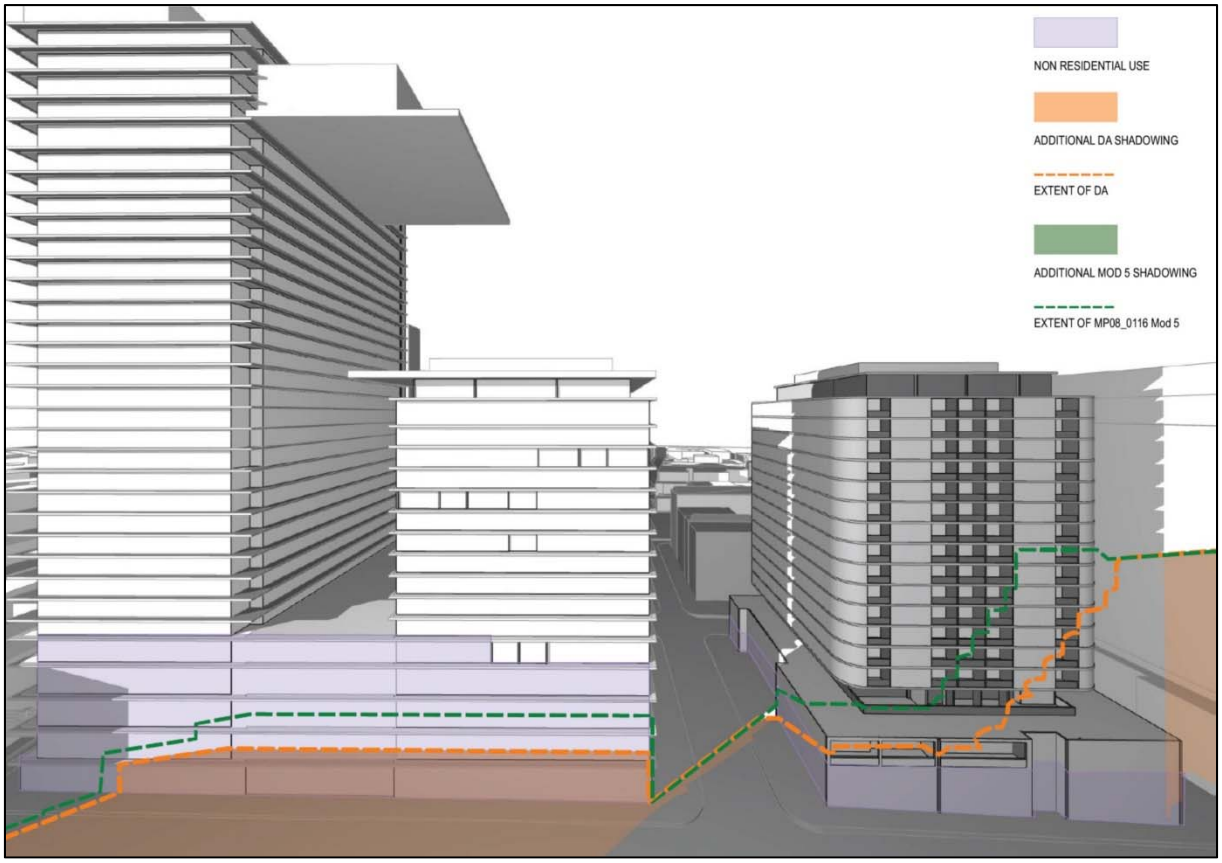

Figure 24: Overshadowing of Central Park units in mid-winter at 8.30 am *(source: the applicant)*

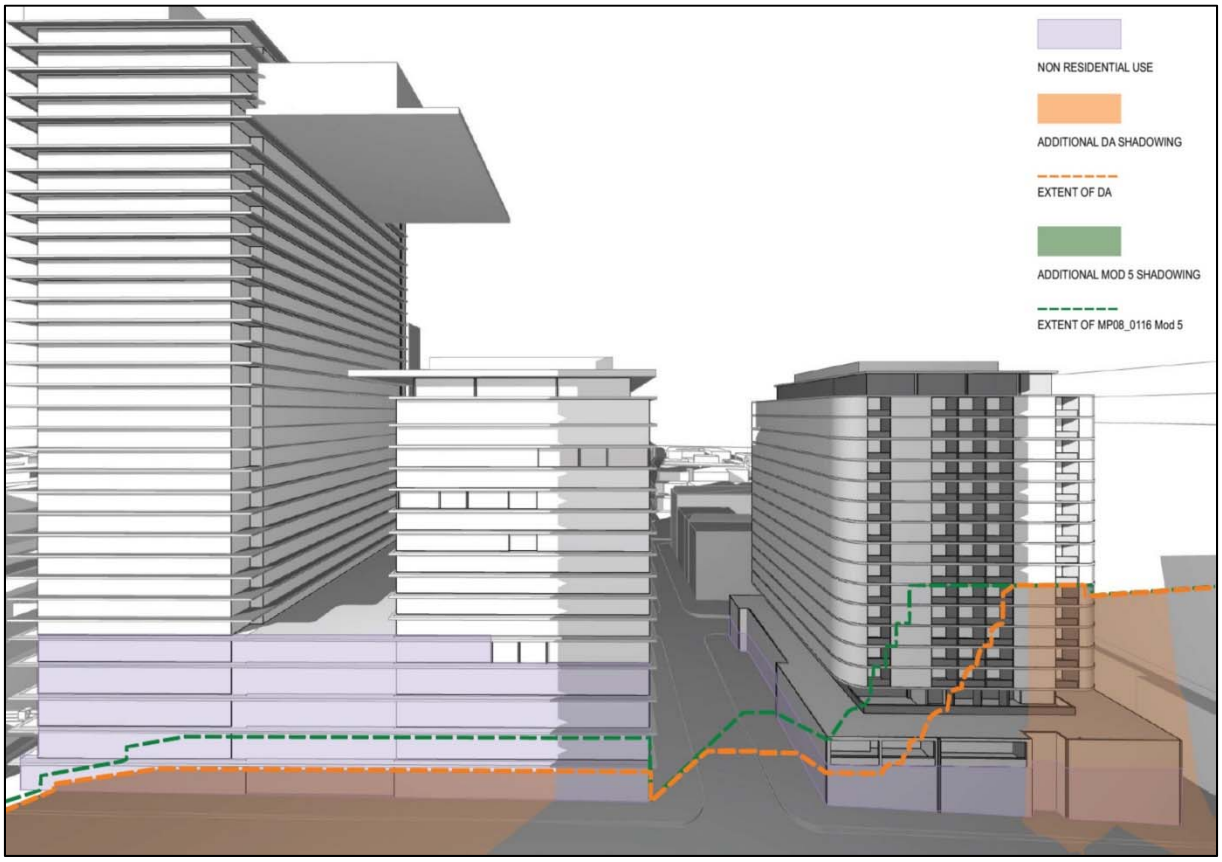

Figure 25: Overshadowing of Central Park units in mid-winter at 9 am *(source: the applicant)*

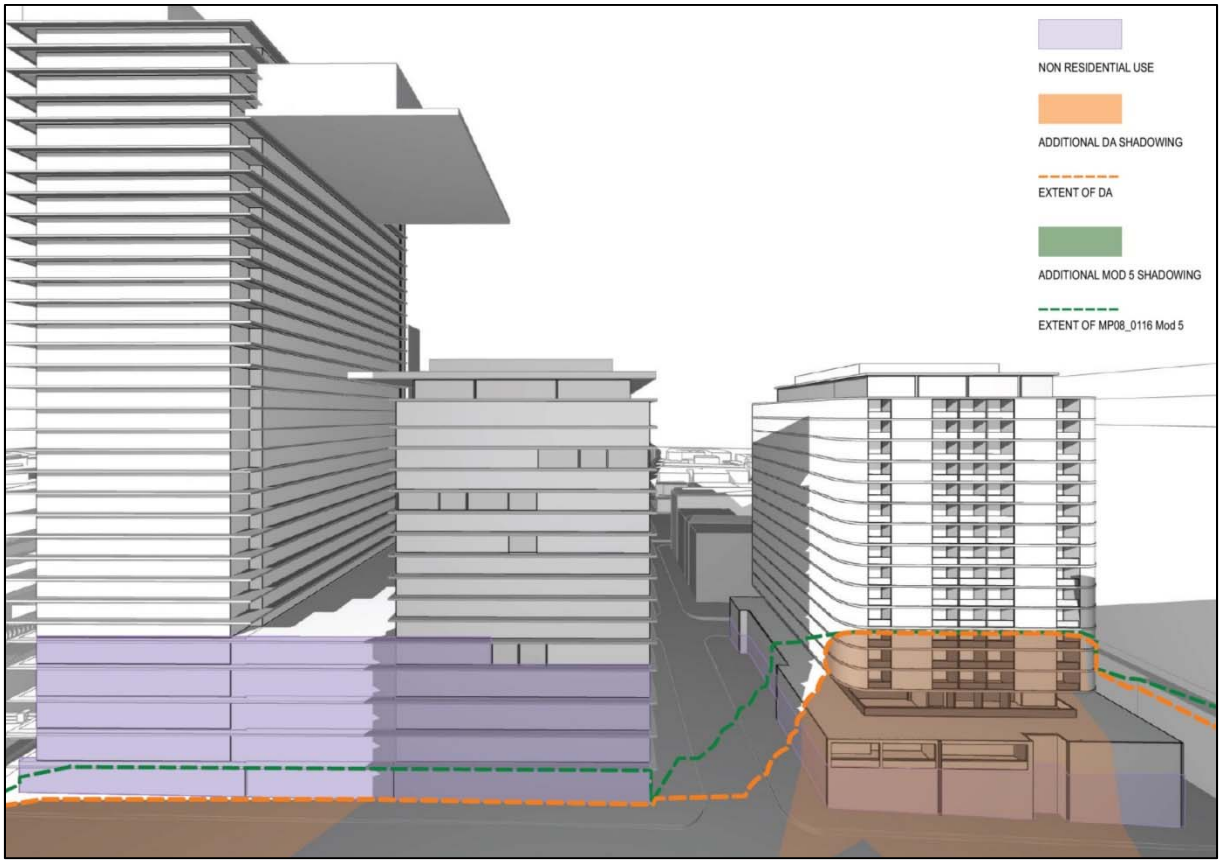

Figure 26: Overshadowing of Central Park units in mid-winter at 10 am *(source: the applicant)*

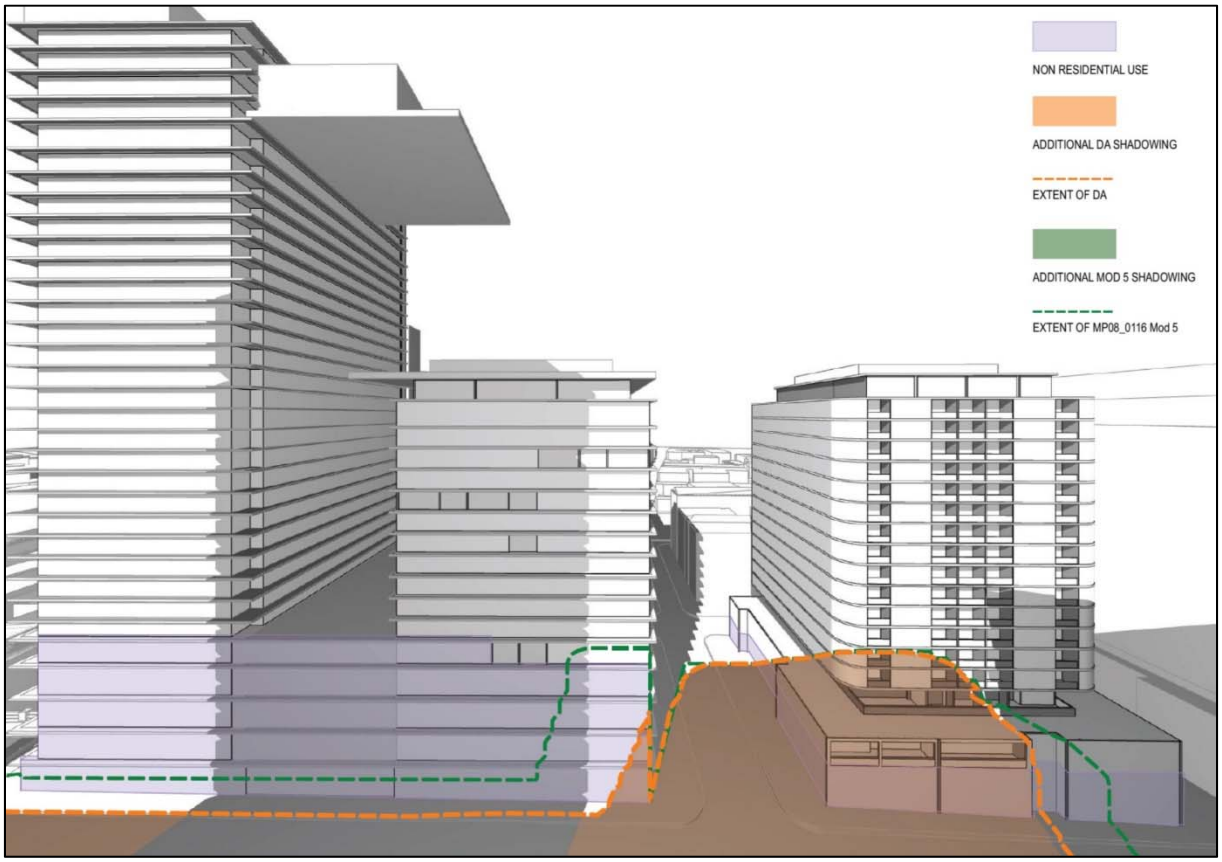

Figure 27: Overshadowing of Central Park units in mid-winter at 11 am *(source: the applicant)*

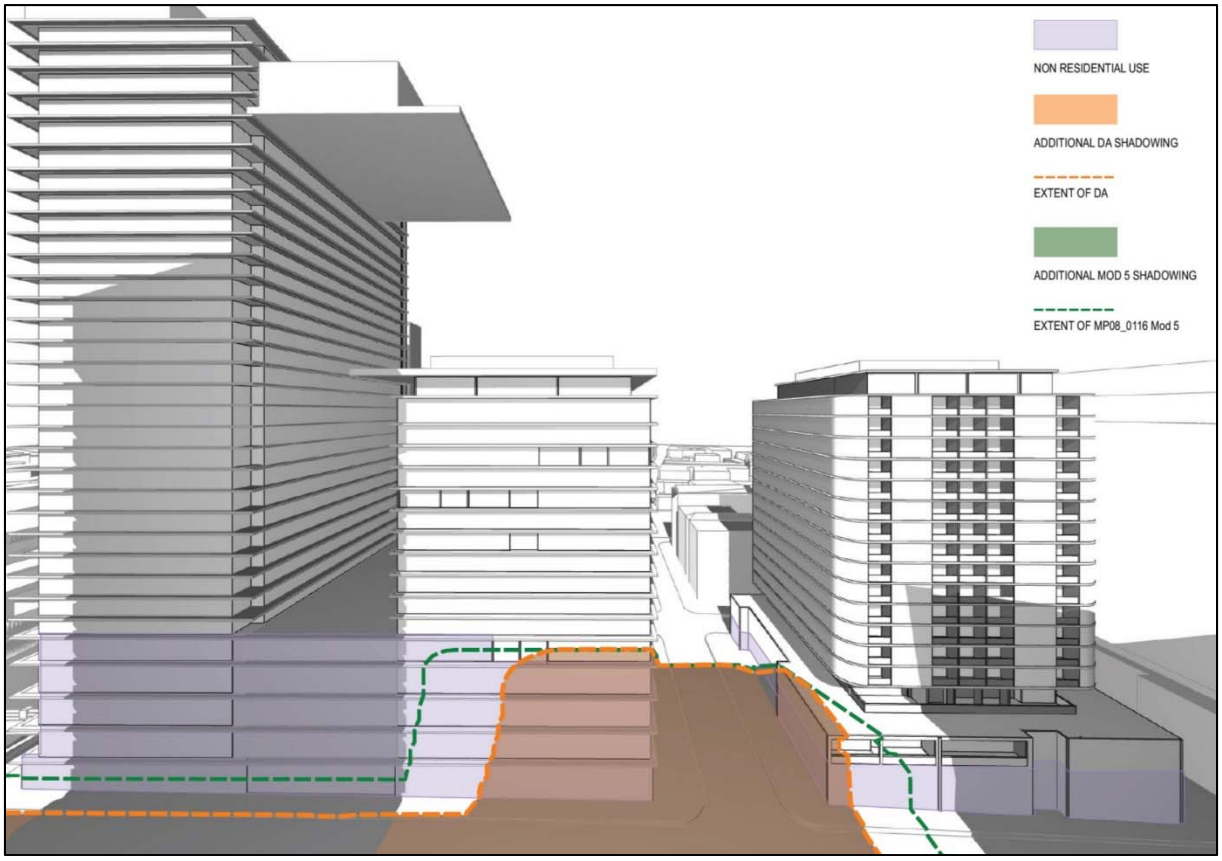

Figure 28: Overshadowing of Central Park units in mid-winter at 12 midday *(source: the applicant)*

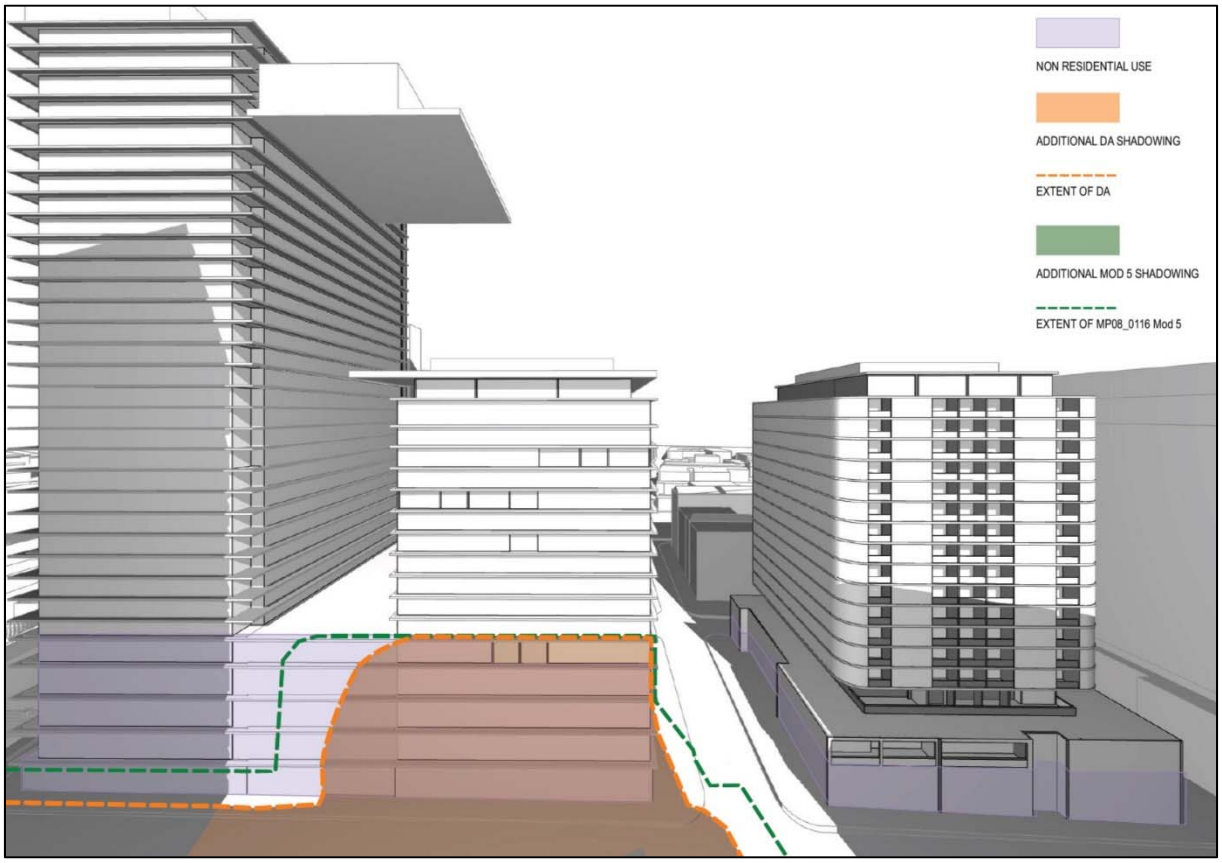

Figure 29: Overshadowing of Central Park units in mid-winter at 1 pm *(source: the applicant)*

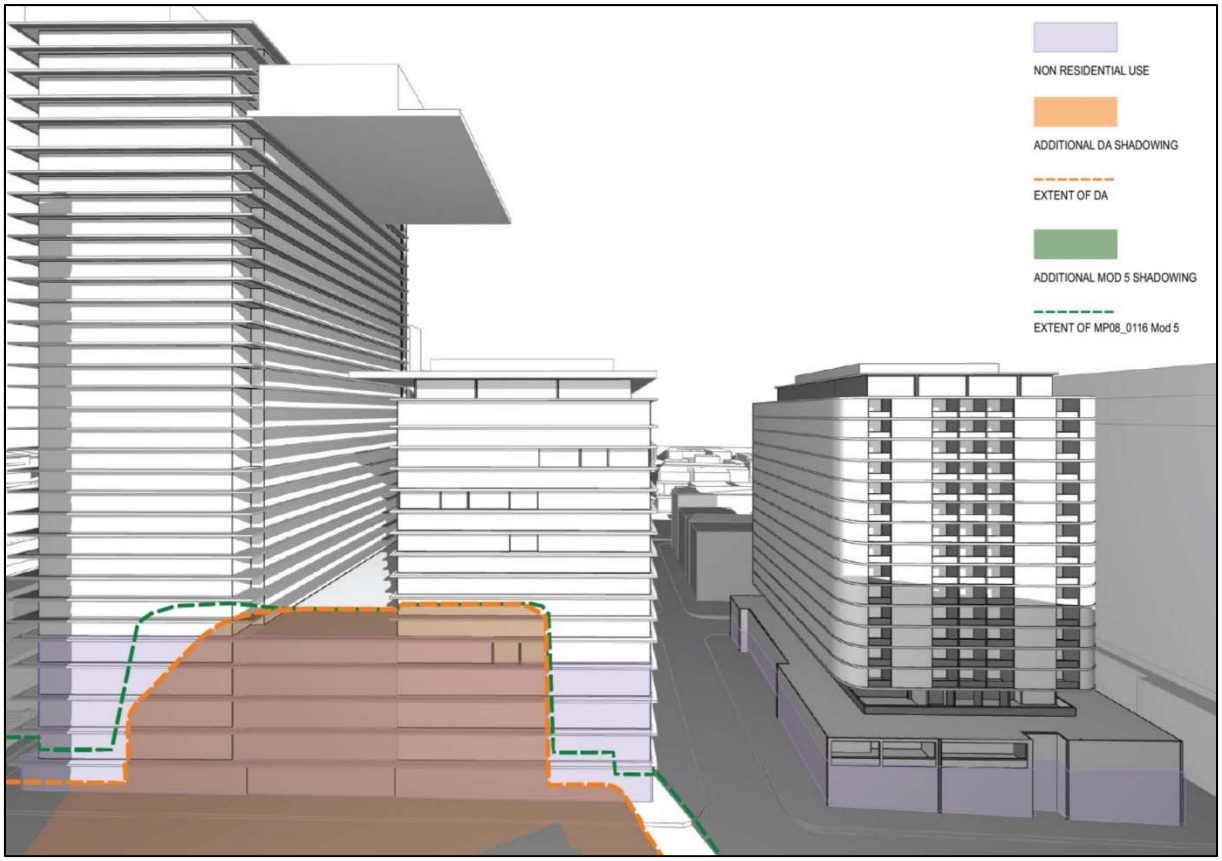

Figure 30: Overshadowing of Central Park units in mid-winter at 2 pm *(source: the applicant)*

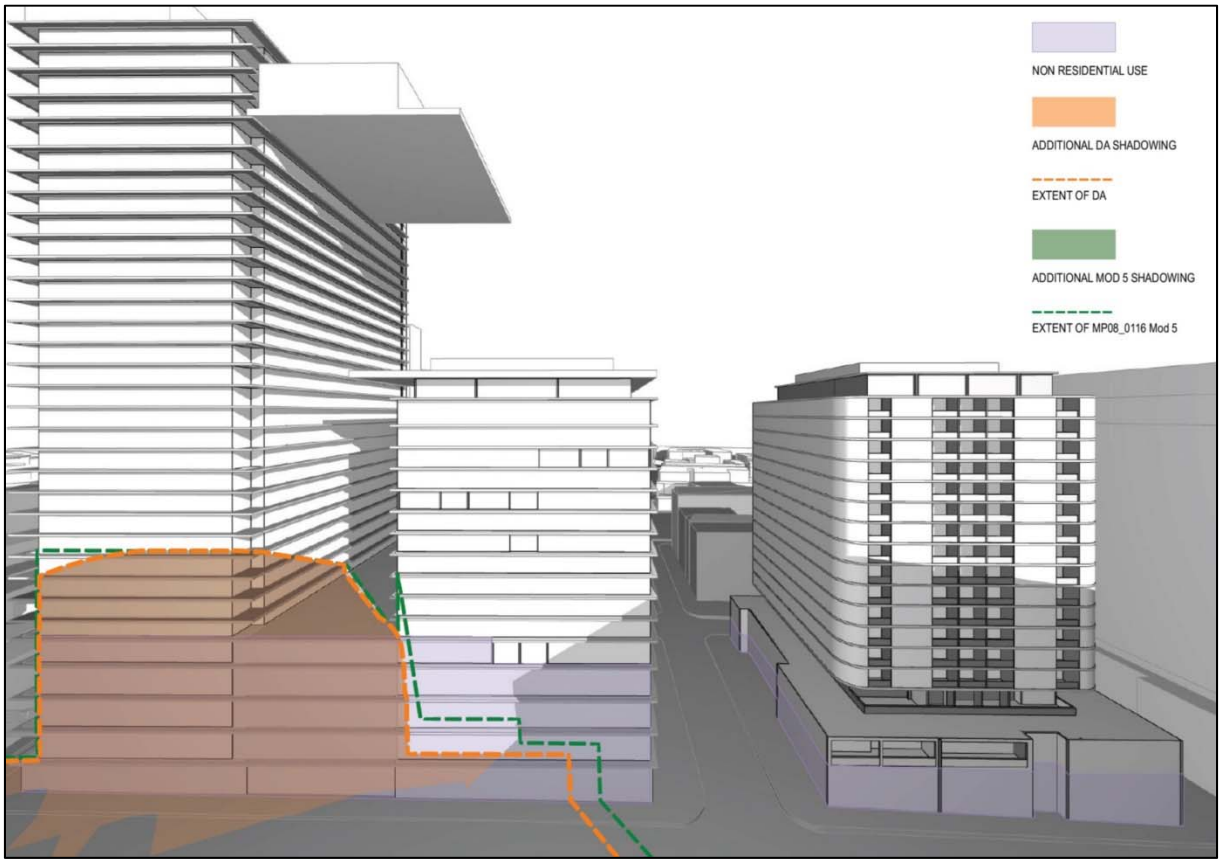

Figure 31: Overshadowing of Central Park units in mid-winter at 3 pm *(source: the applicant)*

Council noted that solar access for Central Park has been considered on a site wide approach previously and the Department should consider site-wide compliance in its assessment.

Central Park Block 1 was originally envisaged for commercial development and was only recently approved for residential use. It was acknowledged in the assessment of the development at that time that solar access could not meet the requirements of the Residential Flat Design Code (RFDC), which applied at the time of assessment, or the superseding Apartment Design Guide and solar access would be limited. It was acknowledged that the overall high level of amenity for the residential uses should be considered in light of the need to deliver high density housing closer to jobs, transport and facilities and balanced against the strict adherence to the apartment design guides. It was concluded that the units on the lower levels would not achieve high levels of solar access but these units did benefit from a reasonable level of amenity, despite their limited sunlight access, and units on Level 2 and 3 would have:

- generous open space and loggia areas, larger than provided at upper levels;
- direct access to pool, gym and amenity space;
- acceptable internal floor area and layouts exceeding the RFDC recommendations; and
- acceptable outlook with all living rooms and open space oriented to the external face of the building.

Apartments on Levels 4 to 9 would also have acceptable internal floor area, internal layouts and outlook. In addition, all the residential units benefit from internal comfort factors such as appropriate apartment sizes, increased floor to ceiling heights and open plan living. The units will also have access to a communal roof terrace at Level 16 which receives two hours of solar access during mid-winter and Block 1 is situated adjacent to Chippendale Green, a 6,000 sqm park developed as part of the Central Park development that is available for the use of residents, employees and the local community.

Approximately 41 per cent of units would receive mid-winter solar access between 7:30 am to 4.30 pm in mid-winter after the design modifications required by the conditions of consent for Block 1 were implemented. This would reduce to 35 per cent of units as a result of this proposal.

The Department considers the overshadowing impacts on these units acceptable it has been demonstrated that the units on the lower levels of Block 1 experience adequate levels of amenity. To reduce the solar access impacts, the height of the proposal would need to be significantly reduced, which would result in a much larger floorplate at the base which would compromise the design quality of the building. A more slender tower or greater setback could also potentially reduce the length of time of overshadowing on some units (as evident when the proposal is compared to the building envelope) but this would result in additional overshadowing impacts to higher units and potentially further reduce the total number of units that receive two hours of solar access in mid-winter.

On balance, given the public benefit from providing additional educational facilities and the reasonable amenity enjoyed by the affected units, the Department considers the overshadowing impacts of the development acceptable in the circumstances.

4.2.2.3 Noise and vibration impacts

Operational

The applicant has prepared an Acoustic Report which concludes that the use of the building is not expected to generate any adverse noise impacts on adjoining sensitive residences, subject to a detailed assessment of the final plant and implementing noise controls to ensure rooftop plant is limited to 75dBA at one metre from the plant to ensure noise levels meet the project specific noise levels established in accordance with the *Industrial Noise Policy*. These measures include plant selection and placement; barriers; acoustic louvres; and sound absorptive panels. The Acoustic Report also confirms that use of the rooftop terraces would comply with the noise criteria.

The EPA advised that the noise assessment has not adequately established background noise levels as background noise monitoring was undertaken on the site instead of at the receivers. The EPA recommended that noise compliance monitoring and assessment is required during commissioning of the plant and do not exceed the predicted levels identified in the Acoustic Report.

The Department considers that the noise generated from the proposal can be managed to comply with the relevant criteria. The Department has recommended a condition that prior to commencement of works, the applicant identify the required mitigation measures to attenuate the rooftop plant and equipment noise to ensure that it complies with relevant noise criteria, as revised in accordance with EPA's comments. The Department has also recommended that the applicant undertake a noise monitoring program of the mechanical plant within 60 days of the commencement of use to verify that the measured noise levels of the mechanical plant do not exceed the noise criteria.

Construction Noise and Vibration Impacts

The Acoustic Report predicts that the construction impacts would meet the noise management levels in the *Interim Construction Noise Guideline* (ICNG) when works are being undertaken indoors and would exceed the noise management levels at the surrounding residences and educational receivers during demolition works and façade works in close proximity to the sensitive receiver. The predicted construction noise levels are expected to exceed the highly noise affected level of 75 dBA. Construction vibration is expected to comply with criteria for the surrounding sensitive receivers and preliminary vibration assessment to confirm acceptable level where significant vibration is anticipated to be generated.

The Acoustic Report recommends a number of measures to control noise impacts during construction including standard best practice construction measures, including scheduling of works to manage the impacts on the range of sensitive receivers.

The Department considers that given the anticipated exceedances of the noise management levels at the closest sensitive residential receivers and education receivers, the preparation of a Construction Noise and Vibration Management Plan would be required. The Department has recommended conditions requiring the preparation of this plan and its implementation during construction. The plan should:

- be prepared in consultation with the noise sensitive receivers where the highly affected noise management level is predicted to be exceeded;
- no works to be undertaken outside of standard construction hours identified in the ICNG where they exceed the highly affected noise management level;
- identify appropriate measures to mitigate the noise impacts;
- monitor noise impacts; and
- establish a complaints management system.

4.2.3. Transport Impacts

4.2.3.1 Bicycle parking and amenities

A future assessment requirement of the approved concept plan requires that any future application for Building 2 must demonstrate that adequate bicycle parking facilities and end-of-trip facilities are provided to support the increased student population that can be accommodated by the redevelopment of Building 2.

The applicant has advised that a campus wide bicycle strategy has been prepared for the University as a condition of approval for the development of Faculty of Science and Graduate School of Health Building. This strategy has been prepared to address the campus wide demand for bicycle parking and amenities and adopts the rates stipulated in Council's DCP of one space per 10 students or staff. The strategy outlines the delivery of up to 1,008 bicycle spaces where required, with the spaces being located primarily in a dedicated area within Building 10. The applicant has delivered 483 of the spaces of the required spaces identified in the strategy and undertakes ongoing monitoring of capacity levels. The monitoring has identified that the level of use of bicycle parking has remained steady at an average of 157 over the last three years even with the delivery of additional facilities, which is equivalent to an average 33 per cent occupancy rate. The applicant therefore maintains that additional facilities are not required at this stage and would be delivered in accordance with the strategy as required.

Council recommended that the additional facilities be delivered as part of this application as it would ensure that the University would be able to support and accommodate the growth of bicycle usage amongst staff, students and visitors.

The Department agrees with Council that additional bicycle parking and end of trip facilities should be provided to encourage bicycle use, however, considers these facilities should be provided to meet the demand generated by the proposal and not the campus in its entirety. The proposal would generate demand for 150 bicycle parking spaces based on a building population of 1,500 at any time and a rate of one space per 10 staff/10 students.

Accordingly, the Department has included recommended conditions requiring the delivery of the additional bicycle spaces and end of trip facilities that would be required for the population that could be accommodated within this building. The Department has also recommended a condition requiring the preparation and implementation of a green travel plan prior to commencement of use of the facilities to ensure that active transport is encouraged.

4.2.3.2 Pedestrian movement

The current buildings on the site provide an irregular setback along Broadway and deeper setback with a large forecourt to Building 1. The proposal would reduce this setback to a consistent 1.5 metres along the length of Broadway, which is consistent with the setback of the ground level delivered with the Faculty of Engineering and IT Building. This would provide a six metre wide footpath.

Council initially raised concerns with impacts on pedestrian movement with the reduced footpath and requested that the applicant demonstrate that adequate pedestrian movement could be maintained.

A footpath capacity assessment was undertaken for Broadway which demonstrates that even with the anticipated growth, the footpath could be maintained at satisfactory levels (LOS B and C) post development and would improve at some points along the pathway given the widened footpath.

Transport for NSW advised that the level of service is likely to be lower than that assessed in the capacity assessment as it assumes an even distribution of pedestrians along the footpath and did not account for the bunching at traffic signals. Transport for NSW recommended that mitigation measures be prepared in consultation with Transport for NSW. This primarily relates to the location of the bus stop, which would potentially be relocated for and after Stage 2 construction works.

The Department considers the provision of a consistent footpath width, with weather protection, would provide an overall improved pedestrian environment. The Department has included a condition requiring the applicant consult with Transport for NSW regarding the design of any works within the footpath and construction zones.

4.2.4. Other Matters

4.2.4.1 Development contributions

Council initially advised that development contributions were applicable to the development. The applicant maintained that development contributions should not be applied and that the applicant intends on delivering public domain upgrade works with the pedestrianisation of Jones Street. The applicant considers that this would be sufficient to offset any development contributions that Council considered necessary. The applicant provided correspondence demonstrating that the University intends on undertaking these works in 2019 upon completion of Stage 1 of the construction works subject to preparing the design in consultation with Council.

Council has since advised that the proposed in-kind contribution toward public domain works associated with Jones Street would be acceptable and the City of Sydney Development Contributions Plan 2015 would not be applicable to the development.

The Department considers that the public domain improvement works would be sufficient to offset any demand for local service and infrastructure upgrades and has included a condition requiring that the applicant provide details of the design of these prior to commencement of use of the facilities, including consultation with Council and approved design details.

4.2.4.2 Heritage

The site does not contain any heritage items but is located within an area that has the potential to impact archaeological resources.

The Heritage Division advised areas previously identified as having historical archaeological potential should be investigated by a suitably qualified and experienced excavation director before works commence. If archaeological excavation is necessary, an excavation methodology and archaeological research design should be prepared in consultation with the

Heritage Council of NSW, and the results of any investigation documented in a final excavation report and submitted to the Heritage Council of NSW.

The Department notes that the works are predominantly being undertaken above ground in an existing disturbed area of the site above existing basement structures. The Department therefore considers the potential for disturbance of archaeological items to be low. However, the Department has included relevant conditions to ensure that adequate mitigation measures, as recommended by the Heritage Division, be implemented during construction if necessary.

4.2.4.3 Public interest

The proposal is considered to be in the public interest as it would provide the following public benefits:

- additional investment in social infrastructure within a highly accessible location;
- growing the Broadway and Camperdown Education and Health Precinct;
- delivering innovative architectural design as well as pioneering teaching and learning techniques;
- ensuring the State remains competitive in attracting students, staff and researchers in the tertiary education sector;
- revitalising the site and providing a visually interesting contemporary building that provides a more prominent entrance to the University and a new identity;
- improved public domain interface along Broadway and Jones Street; and
- delivery of new 239 construction jobs and 250 operational jobs and supporting the growth in student population by 2,400 full time equivalent students.

5. CONCLUSION

The Department has reviewed the EIS and considered advice from the public authorities, including Council. Issues raised in the submissions have been considered and all environmental issues associated with the proposal have been thoroughly addressed.

The design of the building meets relevant built form controls and generally demonstrates that design excellence has been achieved. The Department considers that certain elements of the design are critical to ensuring the design excellence is maintained through the construction stages and that the detailed design of certain elements of the proposal are still being refined and critical to ensuring the integrity of the competition winning podium design scheme. The Department therefore considers the detailed design must demonstrate that the critical design elements are reflected in the final detailed design drawings and endorsed by the GA and reviewed by the original podium competition winning design architects,

The design of the building would have amenity impacts on the residential development within Central Park located to the south of the site, including view impacts and overshadowing. The Department considers that whilst there would be impacts on private views, an improved urban outlook would be delivered that is appropriate within a city centre. The overshadowing impacts have also been balanced against the requirements to grow the educational facilities within an existing constrained health and education precinct and the ability to preserve solar access to units that benefit from a high level of amenity within the CBD context.

The Department's assessment concludes that the built form of the new structure is acceptable as it is consistent with the massing of university buildings and Central Park. Any changes to address the amenity impacts would compromise the design quality of the building and appropriate relationship with the surrounding buildings.

The application is consistent with the objects of the EP&A Act (including ecologically sustainable development), State priorities and *A Plan for Growing Sydney*. The Department

is also satisfied the proposal would provide significant public benefits through the provision of additional education facilities within the highly accessible education and health precinct and improved public domain at the gateway to this precinct. The proposal would also provide 250 new operational jobs and 239 construction jobs.

The Department is satisfied that the proposal satisfactorily responds to the issues raised and recommends that the SSD application for the construction and use of UTS Central be approved, subject to conditions. The Department's recommended conditions of consent would ensure that the construction and use of the building would result in an acceptable environmental and residential amenity for the surrounding environment.

6. RECOMMENDATION

In accordance with section 89E of the *Environmental Planning and Assessment Act 1979*, it is recommended that the Executive Director, Priority Projects Assessments, as delegate of the Minister for Planning:

(a) **consider** all relevant matters prescribed under section 79C of the EP&A Act, as contained in the findings and recommendations of this assessment report and appended documentation;
(b) **grant consent** to the State significant development application for UTS Central (SSD 7382), subject to conditions of consent set out in the attached instrument at **Appendix E**; and
(c) **sign** the attached development consent at **Appendix E**.

grants development consent for the construction and use of UTS Central (SSD 7382).

Prepared by: Megan Fu, Senior Planner

Endorsed by:

22/9/16

Karen Harragon
Director
Social & Other Infrastructure Assessments

Approved by:

23/9/16.

David Gainsford
Executive Director
Priority Projects Assessments

APPENDIX A RELEVANT SUPPORTING INFORMATION

The following supporting documents and supporting information to this assessment report can be found on the Department of Planning's website as follows.

1. Environmental Assessment
   http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7382.

2. Submissions
   http://majorprojects.planning.nsw.gov.au/index.pl?action=list_submissions&job_id=7382.

3. Applicant's Response to Submissions
   http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7382.

APPENDIX B CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENT(S) AND DCP(S)

State Environmental Planning Policy (State and Regional Development) 2011
The aims of this SEPP are to identify State significant development and State significant infrastructure and confer the necessary functions to joint regional planning panels to determine development applications.

The proposal is for SSD in accordance with s. 89C of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it is development for the purpose of an educational establishment with a capital investment value (CIV) in excess of $30 million, under clause 15 (Educational establishments) of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011.

State Environmental Planning Policy No. 55 – Remediation of Land
SEPP 55 aims to provide a state wide approach to the remediation of contaminated land. In particular, SEPP 55 aims to promote the remediation of contaminated land to reduce the risk of harm to human health and the environment by specifying under what circumstances consent is required, specifying certain considerations for consent to carry out remediation work and requiring that remediation works undertaken meet certain standards.

The contamination assessment undertaken for the site indicates that underground fuel storage tanks are located on the site. The contamination assessment concluded that post removal of the tanks and remediation of any contaminated surrounds that the site and the soil conditions are suitable for continued use of the site for education purposes. The removal of the tanks and validation form part of the mitigation measures of the development.

The Department is satisfied that, in accordance with clause 7 of the SEPP, the investigations undertaken of the subject site demonstrate that the site can be made suitable for the continued use for the intended purpose upon removal of the fuel tanks. The Department has recommended a condition requiring that the validation certificate be submitted to the certifying authority prior to commencement works except demolition works.

State Environmental Planning Policy (Infrastructure) 2007
The aim of the Infrastructure SEPP is to facilitate the effective state wide delivery of infrastructure by providing greater flexibility in the location of infrastructure and service facilities, allowing the development of surplus government land, identifying relevant environmental assessment categories for development and relevant matters to be considered and providing for consultation with relevant public authorities.

Schedule 3 of the Infrastructure SEPP requires traffic generating development to be referred to the RMS. The proposal was referred to the RMS who raised no objection to the development.

Sydney Local Environmental Plan 2012 (SLEP)
The development is consistent with the aim of the B4 Mixed Use zone in the SLEP as it seeks to expand an existing use that is compatible with and supported by the surrounding uses. The proposal is well integrated with the surrounding uses as the staff, students and visitors of the educational facility also support the surrounding uses. The proposal is also located optimally to benefit from the accessibility to public transport. Consideration of the relevant clauses of the LEP is provided in **Table 1**. It is noted that the provisions of any

environmental planning instrument or any development control plan do not have effect to the extent to which they are inconsistent with the terms of the approval of the concept plan.

Table 1: Consideration of SLEP 2012

SLEP Criteria	Department Comment/Assessment
Clause 2.7 Demolition requires development consent	Demolition forms part of the application.
Clause 4.3 Height of buildings	The maximum height for the site is 45 metres, however, the controls in the approved concept plan prevail. The proposal meets the controls stipulated in the concept plan.
Clause 4.4 Floor Space Ratio	The floor space ratio for the site is 5:1, however, the controls in the approved concept plan prevail. The proposal meets the controls stipulated in the concept plan.
Clause 5.9 Preservation of trees or vegetation	The proposal would result in the loss of 18 trees (including seven street trees), but this would be offset with the planting of 15 trees (consisting of 12 street trees and three trees on the rooftop terrace. The Department considers the offset planting is adequate to preserve the amenity of the area.
Clause 6.21 Design Excellence	A competitive design process is required for development exceeding 25 metres outside of Central Sydney. However, as the concept plan specifically addressed design excellence, it prevails. The concept plan outlines measure to demonstrate design excellence. The Department concluded that the proposal exhibits design excellence and has recommended condition to ensure that design excellence is maintained through the detailed design and construction phases.
Clause 7.14 Acid Sulfate Soils	The site is classified as class 5, which reflects a relatively low risk, and development consent is only required for works within 500 m of the other land classified with a higher risk level and where the water table is likely to be lowered one metre below AHD on the adjacent land. The proposal will not result in the disturbance of soil or water table of adjacent land with a higher risk as it is located above an existing basement. The Department is satisfied that the proposal is unlikely to disturb, expose or drain acid sulfate soils and cause environmental damage and does not require an acid sulfate soils management plan.
Clause 7.15 Flood planning	A probable maximum flood level of RL 5.22 has been identified. The proposal is situated above this level. The Department is satisfied that proposal would not result in any increase flood risk to life and property associated with the use of land.
Clause 7.19 Demolition must not result in long term adverse visual impact	The Department is satisfied that the proposal would not result in any adverse visual impacts that may arise as a result of the demolition with regard to the streetscape and any special character area as a new building is proposed.
Clause 7.20 Development requiring or authorising preparation of a development control plan	A development control plan (DCP) is required for land if the site area for the development is more than 5,000 square metres or if the development will result in a building with a height greater than 25 metres above ground level. However, a development control plan is not required to be prepared if the consent authority is satisfied that such a plan would be unreasonable or unnecessary in the circumstances. The Department considers a DCP would be unreasonable and unnecessary as the concept plan covers the matters that would have been required by the DCP.

Development Control Plans

It is noted that clause 11 of the State Environmental Planning Policy (State and Regional Development) 2011 provides that development control plans do not apply to SSD. The site also forms part of a concept plan which provide controls and consideration of the issues covered in the DCP and therefore the terms of the approval of the concept plan prevail over the controls within the DCP.

APPENDIX C CONSISTENCY WITH APPROVED CONCEPT PLAN

An assessment of the proposal against the terms of approval, modifications and future assessment requirements of the approved concept plan is provided below.

Concept Approval Terms of Approval	Department Comment
A1 Development Description Except as modified by this approval, Concept Plan approval is granted only to the carrying out of development solely within the Concept Plan area as described in the document titled "Environmental Assessment Report UTS City Campus Broadway Precinct Concept Plan" dated May 2009, as amended by the "Preferred Project Report UTS City Campus, Broadway Precinct Concept Plan" dated October 2009, as modified by "by "Section 75W to Concept Plan (MP08_0116) UTS City Campus, Broadway Precinct GFA and Building Envelope Amendments" dated July 2015, and as amended by the "the Response to Submissions Section 75W to Concept Plan (MP08_0116)" dated November 2015, prepared by JBA Urban Planning Consultants, including: 1. New Broadway Building and Thomas Street Building, with a combined GFA of 44,650 sqm; 2. Expansion of Building 1 podium (4,050 sqm) and new Building 2 (60,357 sqm), with a combined GFA of 64,407 sqm; 3. Expansion of Building 6 for the provision of student housing, with an additional 25,250 sqm GFA; 4. Modifications to Buildings 3, 4 and 10; 5. Modifications to Alumni Green, with a new Multi Purpose Sports Hall and book vault beneath; and 6. Public domain improvements to Broadway and Thomas, Harris, Wattle and Jones Streets.	The proposal does not exceed the combined GFA of 64,407 sqm for Building 1 and 2. Whilst it does not strictly comply with the individual building control, there is no clear demarcation of Building 1 and 2 within the proposed integrated podium and therefore the Department considers the proposal is generally consistent with the terms of the approval.
B1 Building Plant Setbacks The plant on each building is to be set back at least 6 m from any façade of the building facing a public street, or incorporated into the design of the building to minimise the visual impact of the plant from the street.	The plant is integrated in the design of the building and the rooftop plant is setback from the façade and screened. The Department is satisfied that the plant has been appropriately incorporated into the design and would not have a visual impact from the street.
B2 Pedestrian Connectivity The Concept Plan shall be modified to include a strategy to increase activation of the Ultimo Pedestrian Network (UPN) and improve the legibility of pedestrian access for the public between the Devonshire Street Tunnel, the UPN and Building 6. The strategy should investigate the removal of the existing pedestrian bridge and associated stairs/escalators over the UPN and consider options to replace it with a public entrance at grade from the UPN into Building 6 extending through to Harris Street. The strategy shall be prepared in consultation with City Sydney, Sydney Harbour Foreshore Authority and any other stakeholder in the UPN. The strategy shall be submitted to the Department of Planning for approval by 31 March 2012. The strategy should outline any proposed works, landscaping, public domain, public art etc within the UPN and should include a timetable for the completion of works.	The proposal is not situated in proximity to the UPN but would provide improved legibility to the campus and permeability through the ground level of the campus. Notwithstanding, the Department is satisfied that whilst not strictly relevant to this proposal, the development would be consistent with the intent to provide improved pedestrian connectivity.

Future Assessment Requirements	
C2 View Sharing The design of Building 2, including orientation of the tower and separation between towers, should address view sharing and detail the impacts on the outlook and views from residential units south of the site.	The applicant has provided an assessment of the view impacts. The Department has considered the private view impacts in **Section 4.2.2.1**.
C3 Solar Access A detailed overshadowing analysis must be provided to address the solar access impacts of Building 2. The design of the Building 2 must ensure that adequate solar access can be maintained at all residential units affected by overshadowing from Building 2.	The applicant has provided a detailed overshadowing analysis. The Department has considered the overshadowing impacts in **Section 4.2.2.2**.
C4 Bicycle Parking Any future application for Building 2 must demonstrate that adequate bicycle parking facilities and end-of-trip facilities are provided to support the increased student population that can be accommodated by the redevelopment of Building 2.	The applicant has provided further details of the University's bicycle strategy and adequacy of the existing capacity to accommodate any growth. The Department has considered the bicycle and end-of-trip provisions in **Section 4.2.3.1**.
Statement of Commitments	
Design Excellence • Adopt the design excellence process at Section 3.9 of the EAR and incorporate the design quality controls at Section 3.10 of the EAR and Section 3.1.3 of the PPR for new development on the site. • The appointed architects for the Building 1 Podium Extension and Building 2 are Lacoste + Stevenson and fjmt. The design of Building 2 is to incorporate the design quality controls at Section 3.5 of the Response to Submissions for the Section 75W Modification Application (Mod 5).	The design excellence provisions have been adopted for the proposal and design quality controls addressed. The Department considers the proposal has met the design excellence provisions, see **Section 4.2.1.2.**
Heritage • Prepare an interpretation plan that communicates the heritage significance of relevant components of the site. • Undertake photographic archival recording prior to the commencement of demolition works. • Undertake archaeological investigations conducted in accordance with an Archaeological Research Design prior to, or in conjunction with, ground disturbance of areas with historical archaeological potential.	The proposal is not located in an area of with heritage significance or historical archaeological potential. Recommended conditions of consent would ensure if any areas of historical archaeological significance were discovered that appropriate measures would need to be prepared and implemented.
Traffic, Transport and Access • Prepare a Transport Access Guide to promote the use of public transport to staff and students. • Investigate opportunities for the consolidation of bus shelters along Broadway in consultation with the State Transit Authority and the City of Sydney. • Provide facilities for cyclists. • Prepare Construction Traffic Management Plans for every development on the site to manage any impacts on traffic and pedestrian movements during construction.	The Department has recommended conditions requiring the: • delivery of additional bicycle parking facilities and end of trip facilities to promote active transport use; • preparation and implementation of a Green Travel Plan to promote sustainable transport; and • consultation with Transport for NSW and Council for the detailed design of the public domain works, including consideration of the location of the bus stop on Broadway.

Visual Impacts • Use architectural treatment of facades to break down the perceived scale and massing of new buildings. • Retain street trees or provide additional mature plantings to improve the streetscape.	The proposal incorporates articulation and modulation to provide visual interest and high level of transparency to reduce the massing of the development, see **Section 4.2.1.1**. The proposal would deliver additional tree planting along Broadway to improve streetscape.
Wind • Undertake detailed wind impact assessments for each new building during the detailed design stage. • Articulate the facades of Buildings 1 and 2 and the Broadway Building to ameliorate the impacts of westerly winds at ground level on Broadway. • Plant mature trees and shrubs, and provide colonnades or awnings along the boundaries of Alumni Green. • Locate pedestrian entrances to new buildings along internal pedestrian links to intercept strong wind flows.	A wind assessment was undertaken and concluded that wind conditions at pedestrian level around the site are not expected to be significantly affected by the increase in building massing and would remain suitable for pedestrian standing and walking from a comfort perspective. Wind tunnel testing during detailed design development was recommended and identified as a mitigation measure.
Landscape Design • The removal of any significant trees will be subject to an arborist's report. • Sustainable design principles will be incorporated into the landscape design, including selection of plants with low irrigation requirements and minimising the use of potable water.	An arborist report was submitted and the trees to be removed are not considered to be of significance and would be appropriately offset. Water sensitive urban design solutions has been adopted in the landscape treatment.
Contamination • A Stage 2 Environmental Assessment (EA) that includes soil and groundwater sampling. • Waste classification for offsite disposal of soil and bedrock. • A Hazardous Building Material Survey for buildings that are to be refurbished or demolished.	A Preliminary Site Investigation was undertaken for the site and concluded that that post removal of the fuel storage tanks and remediation of any contaminated surrounds that the site and the soil conditions are suitable for continued use of the site for education purposes. The Department has recommended a condition requiring site validation post removal of the tanks.
Ecologically Sustainable Development • Adopt a 5 star Green Star Education target for the new Broadway Building, extended Building 1 podium and new Building 2 • Reduction in overall water campus consumption by up to 20 percent by 2010 • Meet or exceed the requirements of Section J of the Building Code of Australia for energy efficiency in building fabric and environmental systems • Investigate integrating a 1.2-1.5 megawatt trigeneration plant into the UTS City Campus utilities system • Investigate installing of a bio-digester plant in Building 2 to reduce operational waste • Investigate installing blackwater recycling system with sewer mining capacity (to enable black water to be used for chiller and toilet flushing purposes).	The proposal will meet the targets identified.

Ultimo Pedestrian Network Develop a strategy with relevant stakeholders and upgrade the Ultimo Pedestrian Network to activate and improve the aesthetic appeal of the area	Works have been completed.

APPENDIX D GLOSSARY

Ecologically Sustainable Development can be achieved through the implementation of:

(a) the precautionary principle - namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:
- *(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
- *(ii) an assessment of the risk-weighted consequences of various options,*

(b) inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,

(c) conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,

(d) improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:
- *(i) polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
- *(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
- *(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.(Cl.7(4) Schedule 2 of the Regulation).*

Objects of the Act

(a) to encourage:
- *(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
- *(ii) the promotion and co-ordination of the orderly and economic use and development of land,*
- *(iii) the protection, provision and co-ordination of communication and utility services,*
- *(iv) the provision of land for public purposes,*
- *(v) the provision and co-ordination of community services and facilities, and*
- *(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
- *(vii) ecologically sustainable development, and*
- *(viii) the provision and maintenance of affordable housing, and*

(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and

(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.

Section 79C Evaluation

*(1) **Matters for consideration—general***

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:

(a) the provisions of:

(i) any environmental planning instrument, and

(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and

(iii) any development control plan, and

(iiia) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F, and

(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and

(v) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979),

that apply to the land to which the development application relates,

(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,

(c) the suitability of the site for the development,

(d) any submissions made in accordance with this Act or the regulations,

(e) the public interest.

Note. *See section 75P(2)(a) for circumstances in which determination of development application to be generally consistent with approved concept plan for a project under Part 3A.*

Note. *The consent authority is not required to take into consideration the likely impact of the development on biodiversity values if:*

(a) the development is to be carried out on biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995), or

(b) a biobanking statement has been issued in respect of the development under Part 7A of the Threatened Species Conservation Act 1995.

APPENDIX E RECOMMENDED CONDITIONS OF CONSENT