

Section 75W to Concept Plan (MP08_0116)



UTS City Campus, Broadway Precinct GFA and Building Envelope Amendments

Submitted to Department of Planning and Environment
On Behalf of University of Technology Sydney

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31/07/2015

This report has been reviewed by:



31/07/2015

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1.0 Introduction

This Environmental Assessment Report (EAR) for modifications to the approved Concept Plan for the Broadway Precinct of the University of Technology Sydney (UTS) City Campus is submitted to the Minister for Planning in accordance with section 75W and Clause 3C of Schedule 6 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The UTS City Campus Broadway Precinct Concept Plan (BPCP) was approved by the then Minister for Planning on 23 December 2009 (MP08_0116) and included:

- New Broadway Building and Thomas Street Building with a combined gross floor area (GFA) of 44,650m²;
- Expansion of Buildings 1 and 2 with a combined additional GFA of 10,800m²;
- Expansion of Building 6 for the provisions of student housing with an additional 25,250m² GFA;
- Modifications to Buildings 3, 4 and 10;
- Modifications to Alumni Green with a new Multi Purpose Sports Hall and book vault beneath; and
- Public domain improvements to Broadway and Thomas, Harris, Wattle and Jones Streets.

This report has been prepared by JBA on behalf of the University of Technology Sydney, UTS, (the proponent). The report describes the proposed modifications; outlines the purpose of the modifications; and provides a detailed assessment of the potential environmental impacts. This report should be read in conjunction with the Design Report and amended Concept Plan Drawings prepared by fjmt (refer to **Appendix A**) and supporting technical documents provided by the expert consult team.

In summary, this Section 75W application seeks the following modifications to the Concept Plan Approval:

- Increase in the approved additional GFA for Building 2 to 38,261m², comprising an increase of 31,511m²;
- Expansion and amendment to the approved building envelope for Building 2, resulting in a maximum building height of 64.5m (RL 79.50) at Broadway, comprising an increase of 34.41m; and
- Consequential amendments to the Urban Design Quality Controls/Principles for Building 2 and Statement of Commitments.

2.0 Background

2.1 Approved Concept Plan

UTS was formed in 1988 from the former NSW Institute of Technology, and was restructured in 1990 with the merger of the Kuring-gai College of Advanced Education, the School of Design, and the Institute of Technical and Adult Teacher Education to form the current UTS. This change in profile, combined with the University's predominantly CBD location in Sydney, created a new identity.

During its early evolution, student numbers increased at UTS without any significant increase in student facilities.

UTS recognised the need to upgrade the City Campus back in 2000, and undertook a number of visioning and master planning projects culminating in the *City Campus Masterplan 2020* (BVN, 2008) which provides a framework for refurbishments and new building works across the campus (comprising the Broadway Precinct and other sites in the Sydney CBD) in order to provide improved facilities and to accommodate future expected student and staff growth.

The long term strategic vision for UTS is 'to be one of the world's leading Universities of Technology'.

On 23 December 2009 a critical step in realising UTS's vision and identity for the Broadway Precinct was realised, with approval of the UTS City Campus Broadway Precinct Concept Plan (BPCP).

The Concept Plan included:

- New Broadway Building and Thomas Street Building with a combined gross floor area (GFA) of 44,650m²;
- Expansion of Buildings 1 and 2 with a combined additional GFA of 10,800m²;
- Expansion of Building 6 for the provisions of student housing with an additional 25,250m² GFA;
- Modifications to Buildings 3, 4 and 10;
- Modifications to Alumni Green with a new Multi Purpose Sports Hall and book vault beneath; and
- Public domain improvements to Broadway and Thomas, Harris, Wattle and Jones Streets.

The Minister also granted Project Approval for the following works:

- Construction of a new underground Multi Purpose Sports Hall; and
- Demolition of Buildings 11, 12 and 13.

The key components of the approved Concept Plan are illustrated in **Figure 1**.

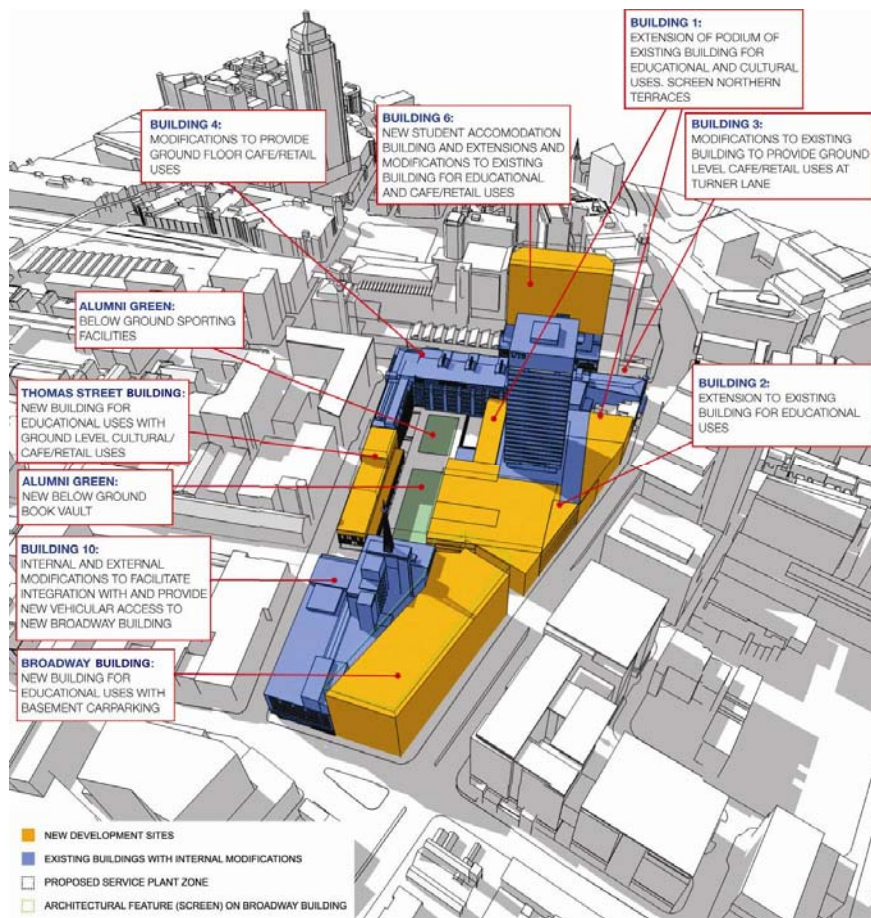


Figure 1 – 3D Model of approved concept plan

Source: BVN, DCM and JBA)

2.2 Concept Plan Modifications

Since the Concept Plan was approved, four (4) subsequent modifications have been approved.

Modification No 1

Modification No 1 (MP 08_0116 Mod 1), approved in March 2011, sought to include bulk excavation works for the Broadway Building as part of the Project Approval works granted under the Concept Plan approval (enabling these works to be undertaken ahead of the Project Application for the building).

Modification No 2

Modification No 2 (MP 08_0116 Mod 2), approved in March 2011, related to an administration amendment to Concept Plan condition B2.

Modification No 3

Modification No 3 (MP 08_0116 Mod 3), approved in July 2011, sought to include the excavation, construction and operation of the Library Retrieval System (LRS) and Storage Building together with bulk excavation works for the Thomas Street Building as part of the Project Approval works granted under the Concept Plan approval (enabling these works to be undertaken without any further environmental assessment).

The modification also included a revised breakdown of GFA across the UTS Broadway site, with the Environmental Assessment submitted in support of the S75W identifying an increased GFA for the Thomas Street building of 12,150m² (corresponding with a decreased GFA for the Broadway Building of 34,650m²).

Modification No 4

Modification No 4 (MP 08_0116 Mod 4), approved in March 2012, related to an administration amendment to Concept Plan condition E3 (approved truck route plan for excavation of Thomas Street building and the library retrieval system).

2.3 Evolution of Concept Plan

Since approval of the Concept Plan in 2009 UTS has secured the necessary detailed planning approvals and delivered a number of state of the art and iconic learning, research and social facilities across the Broadway Precinct, including:

- Faculty of Engineering and IT Building (**Figure 2**), designed by Denton Corker Marshall Architects.
- Multi-Purpose Sports Hall (**Figure 3**).
- Alumni Green (**Figure 4**), designed by ASPECT Studios Landscape Architects.
- Faculty of Science and Graduate School of Health Building (**Figure 5**), designed by Durbach Block Jagers in association with BVN Architecture.
- Library Retrieval System.
- Great Hall and Balcony Room Upgrade, Designed by DRAW Architects in association with Kann Finch Architects.

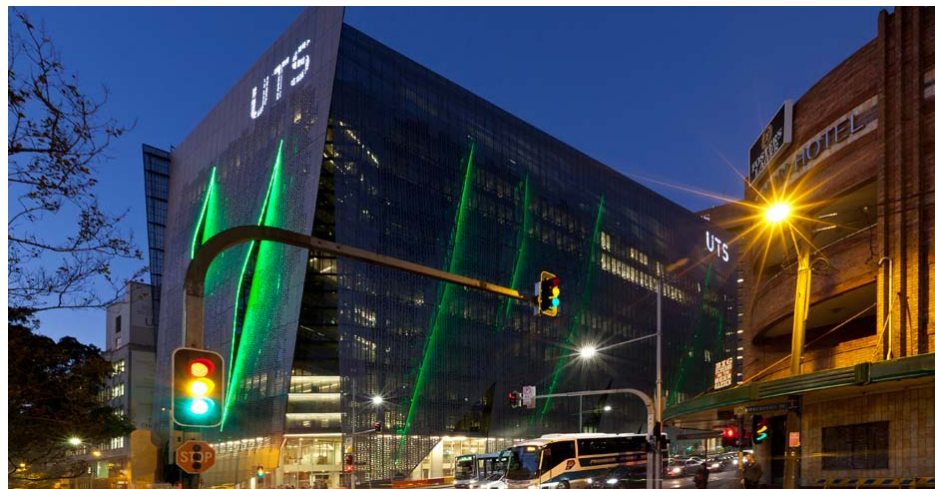


Figure 2 – Faculty of Engineering and IT Building



Figure 3 – Multi Purpose Sports Hall



Figure 4 – Alumni Green



Figure 5 – Faculty of Science and Graduate School of Health Building

Some of the buildings delivered to date by UTS have gone on to win architectural design awards, including the Faculty of Science and Graduate School of Health Building receiving two 2015 Australian Institute of Architects (NSW) awards:

- City of Sydney Lord Mayor's Prize
- Educational Architecture - William E Kemp Award

UTS has also gone through a competitive design process for the Building 1 and Building 2 Podium Extension project, with Lacoste + Stevenson in association with Darryl Jackson Robin Dyke Architects (Lacoste + Stevenson) awarded the design commission (refer to **Figure 6**). A State Significant Development Application will be submitted during 2015 and will include these works.



Figure 6 – Lacoste + Stevenson winning design competition entry for Building 1 and Building 2 podium

2.4 Proposed Modifications

As evidenced above, UTS is well on track to reaching its 2020 vision. However due to changes in the tertiary sector since 2008 when the UTS Concept Plan was prepared student demand has exceeded the original projection.

The Concept Plan was based on providing facilities for a student load of 15,000 EFTSL¹ on the Broadway Precinct by 2015. In 2014 the student load was 17,100 EFTSL. The current projection for 2020 is 19,500 EFTSL, up 4,500 EFTSL from the 15,000 EFTSL the Concept Plan was planned to accommodate.

With the Concept Plan clearly well progressed in its delivery, there remains realistically only one site left capable of accommodating the increased student load, being the Building 2 site (refer **Figure 7 and 8**). With the existing approved envelope and design concept for the Building 1 and Building 2 Podium effectively 'locked in' (refer **Figure 9**), the opportunity presents for providing additional floors above the Building 2 podium.

¹ Equivalent full time student load

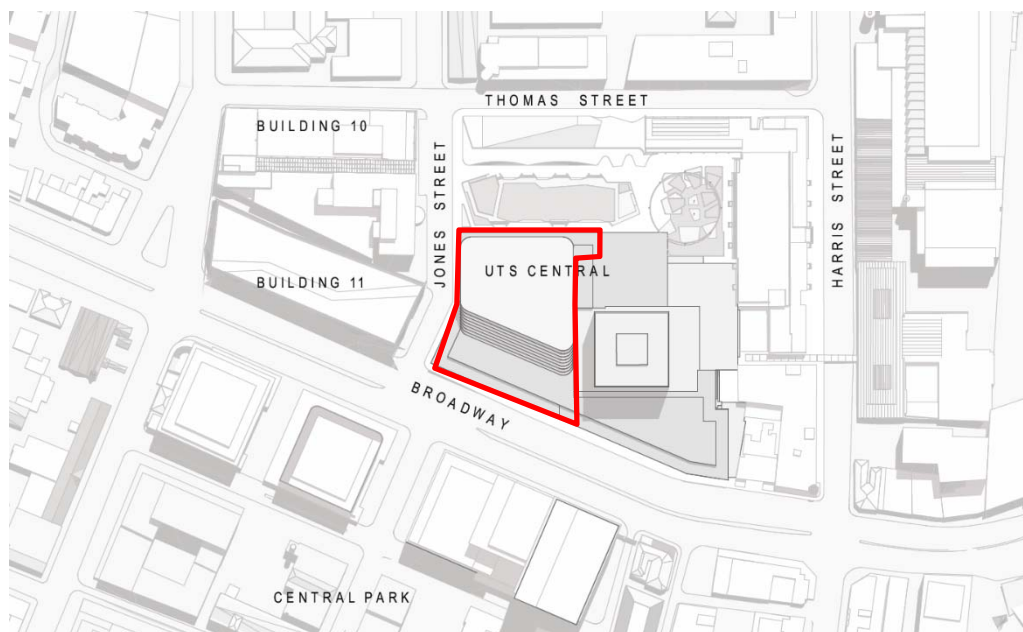


Figure 7 – Building 2 site (in red)

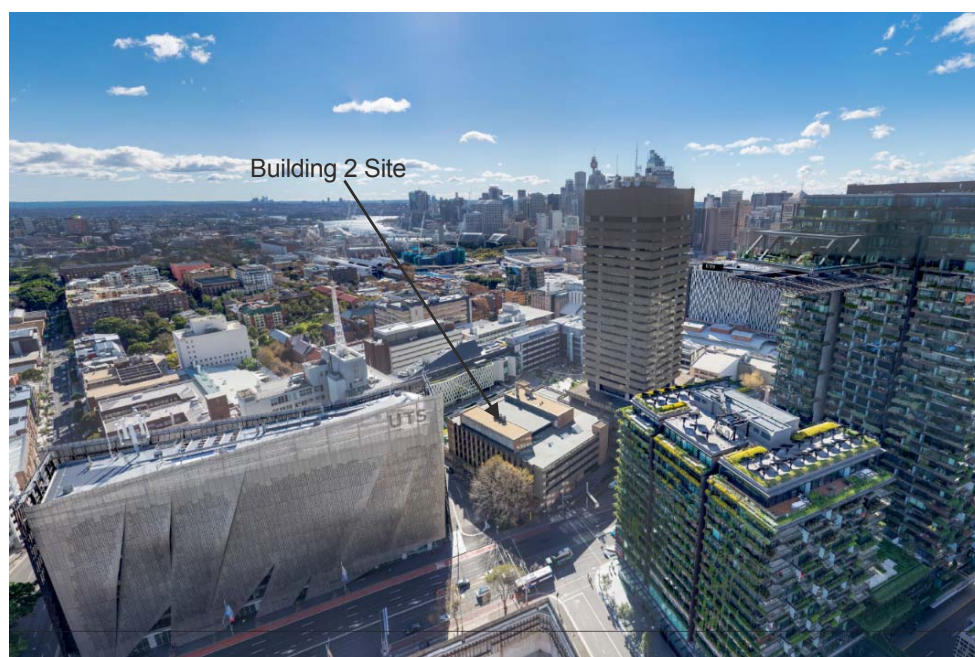


Figure 8 – Aerial view of UTS Broadway Precinct and surrounds

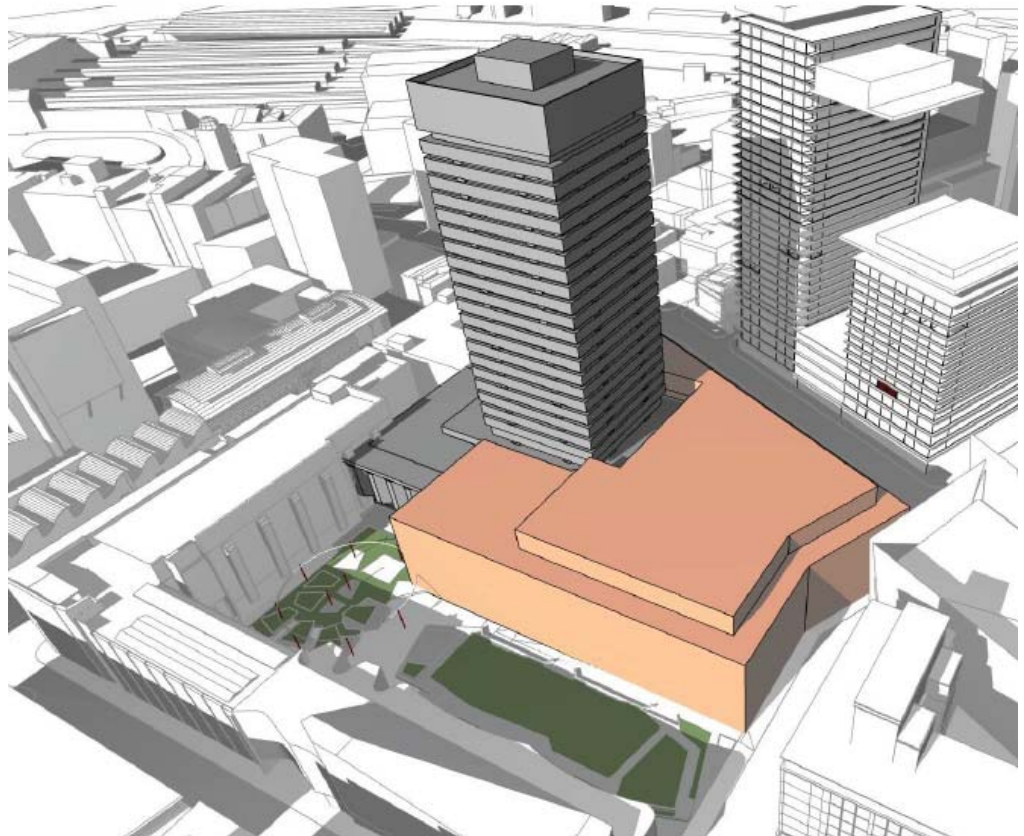


Figure 9 – View of existing approved Building 2 podium envelope (in beige)

UTS has accordingly retained the services of renowned architects Francis-Jones Morhen Thorp (fjmt) in collaboration with Lacoste + Stevenson to lead and develop a new building form/massing and subsequently detailed design for a new and expanded Building 2.

2.4.1 Strategic Need and Justification

Why additional floor area is sought

The total GFA proposed in 2009 (and the current approved) for the Broadway Precinct is 197,453 sqm for a student load of 15,000 EFTSL. This equates to 13.16 sqm/ EFTSL.

In 2015 the total GFA proposed for the Broadway Precinct is 230,511 sqm for a student load of 19,500 EFTSL. This equates to 11.82 sqm/ EFTSL. Based on the current approved GFA of 197,453 the space allowance for the current student projected student load of 19,500 EFTSL equates to 10.13 sqm/ EFTSL.

The Tertiary Education Facilities Management Association (TEFMA) broad planning guideline is 14 – 15sqm / EFTSL. This demonstrates that to maintain an adequate allocation of space per student, additional floor area is required on the Broadway Precinct.

The UTS Library that serves the City Campus (ie both Broadway and Haymarket Precincts) in accordance with the City Campus Masterplan (BVN 2008) will be located at the Broadway Precinct in Building 2. This will now be required to serve 29,142 EFTSL in 2020, up 5,642 from the 2008 projection of 23,500 EFTSL for the City Campus in 2015. The library will require additional floor area.

Why there has been an increase in student numbers from the 2008 projection

The 2008 Projection for 2015 Student Load at the City Campus was 23,500 EFTSL (15,000 EFTSL at Broadway and 8,500 EFTSL at Haymarket).

The current Projection for 2020 Student Load at the City Campus is 29,142 EFTSL (19,500 EFTSL at Broadway and 9,642 EFTSL at Haymarket).

The projected student numbers have increased during the period from 2008 to 2015 due to the following factors:

1. Planned strategic increases in response to current market and competitive conditions including to fund the provision of new courses, student services and facilities.
2. The Federal Labor Government in 2009 endorsed a target of 40 per cent of 25 - 34 year olds having at least a bachelor degree by 2025. To achieve this goal domestic student intake caps were removed and Australian higher education institutions were encouraged to enrol more domestic degree students by 2013. The UTS projections in 2008 were prepared on the basis that the Government's higher education funding on Commonwealth supported students would continue to be capped for limited growth. However the Government removed the cap in 2012 allowing universities to increase intakes to meet demand.
3. The implementation of a new Research Strategy that promotes collaboration with industry partners and overseas institutions and includes significant increases in research student numbers. The university also needs an increased student population base to be competitive in the international research field. Apart from increasing international rankings a strong research performance also influences private sector and community investment and contributes to the university's long term financial stability.
4. Increases in demand from overseas students, including from China and India. UTS is prepared to offer education opportunities to students in developing countries by increasing international student intakes from 2013. In the past 5 years there has been a significant increase in student residential accommodation in the precinct that is available to overseas students, making UTS more accessible.
5. Establishment of the new Graduate School of Health in 2012. This was not contemplated in 2008 when the UTS Concept Plan was prepared. The course was initially established in response to a shortage of pharmacists in NSW. The Graduate School of Health is expected to grow to more than 600 students by 2020.
6. The UTS Kuring-gai campus will close in December 2015. Courses offered at Kuring-gai will continue to be offered at the Broadway and Haymarket campuses.
7. UTS has provided a number of new and refurbished facilities on the City Campus during the past 2 – 5 years. These have allowed UTS to improve efficiency and provide a better learning experience to students.
8. The UTS learning model. This provides a learning foundation that is practice – oriented, globally focussed and research – inspired.

Why the Broadway Precinct

Growth has occurred in student numbers for the five (5) faculties located at the Broadway Precinct. These are Faculty of Engineering and Information Technology, Faculty of Health, Faculty of Arts and Social Sciences, Faculty of Science and Faculty of Design Architecture and Building. Each of these faculties is established for the long term in new or upgraded facilities.

It is critical that these faculties expand contiguously and do not become fragmented by expanding on other campuses. In addition the Graduate School of Health has strong ties to Faculty of Health and Science and needs to be collocated with these.

Relationship to other Precincts

Haymarket Precinct

The Dr Chau Chak Wing Building at the Haymarket Precinct was completed in 2014 and is fully occupied today. This building accommodates the Faculty of Business, including academic offices, Graduate School of Business, research groups, informal learning space and specialist teaching space.

The Faculty of Business vacated UTS Building 5 Block C and D. This space is fully allocated to Insearch in the UTS City Campus Masterplan 2020 (DEGW August 2012).

Following the relocation of the Library to the Broadway Precinct (Building 2) from the Haymarket Precinct (Building 5 Block A), Building 5 Block A is allocated to general teaching space, general access computing, research and a student administration centre in the City Campus Masterplan 2020 (DEGW August 2012).

It is not feasible to allocate the additional students in the five faculties located at the Broadway Precinct to the Haymarket Precinct.

Blackfriars Precinct

A new research building is proposed at the Blackfriars Precinct to accommodate commercial research partners. The Blackfriars Precinct is planned as an industry hub for the creative digital industries. A request for SEARS has been made. The Project Number is SSD 6746.

It is not feasible to allocate additional students to the Blackfriars Precinct.

2.5 Consultation

The proponent and consultant team has met and corresponded on a number of occasions with both City of Sydney Council and the Department of Planning and Environment during the preparation of the Modification Application.

The discussions gave UTS the opportunity to provide an overview of the planned changes to the Concept Plan along with receiving initial thoughts and feedback and identifying aspects that should be addressed as part of the S75W modification application. The comments and feedback provided have accordingly been incorporated and addressed as part of this submission (as appropriate).

Initial community consultation was also undertaken by UTS in March 2015, with further details of this process included at **Section 4** and **Appendix B**.

3.0 Description of Proposed Modifications

The proposed modifications to the approved Concept Plan are described in this section. This Section 75W application seeks the following modifications to the approved Concept Plan:

- Increase in the approved additional GFA for Building 2 to 38,261m², comprising an increase of 31,511m²;
- Expansion and amendment to the approved building envelope for Building 2, resulting in a maximum building height of 64.5m (RL 79.50) at Broadway, comprising an increase of 34.41m; and
- Consequential amendments to the Urban Design Quality Controls/Principles for Building 2 and Statement of Commitments.

Revised Concept Plan Drawings prepared by fjmt are provided at **Appendix A**. The different components of the proposal are discussed further below.

3.1.1 Floor Space Increase

The provision of additional floor space within the Building 2 site will facilitate the delivery of much needed additional education floor space. The expanded Building 2 envelope will effectively 'complete' the Concept Plan and enable UTS to positively respond to increasing student numbers.

An additional 31,511m² of floor space is therefore proposed, resulting in a revised total of 38,261m² for the expanded Building 2.

Building	Existing GFA (m ²) SLEP 2005	Approved additional GFA (m ²) SLEP 2005	Proposed additional GFA (m ²) SLEP 2005	Approved Total GFA (m ²) SLEP 2005	Proposed Total GFA (m ²) SLEP 2005
Building 2	22,096	6,750	38,261	28,846	60,357

3.1.2 Building 2 Envelope Modifications

The proposed additional floor space is principally to be accommodated within nine (9) additional floors/storeys above the existing approved Building 2 envelope (refer to **Figure 10**). The maximum height of Building 2 is therefore proposed to increase from 30.09m to 64.5m (an increase of 34.41m) at Broadway. The proposed amended maximum building height for Building 2 is set at RL 79.50² (inclusive of rooftop plant and equipment).

At this amended maximum RL, it is noted that the maximum building height would be 65.5m at the lowest point of the site (Alumni Green/Jones Street).

² At this amended maximum RL, it is noted that the maximum building height would be 65.5m at the lowest point of the site - having an Assumed Ground Level of RL 14.00 (i.e. Alumni Green/Jones Street).

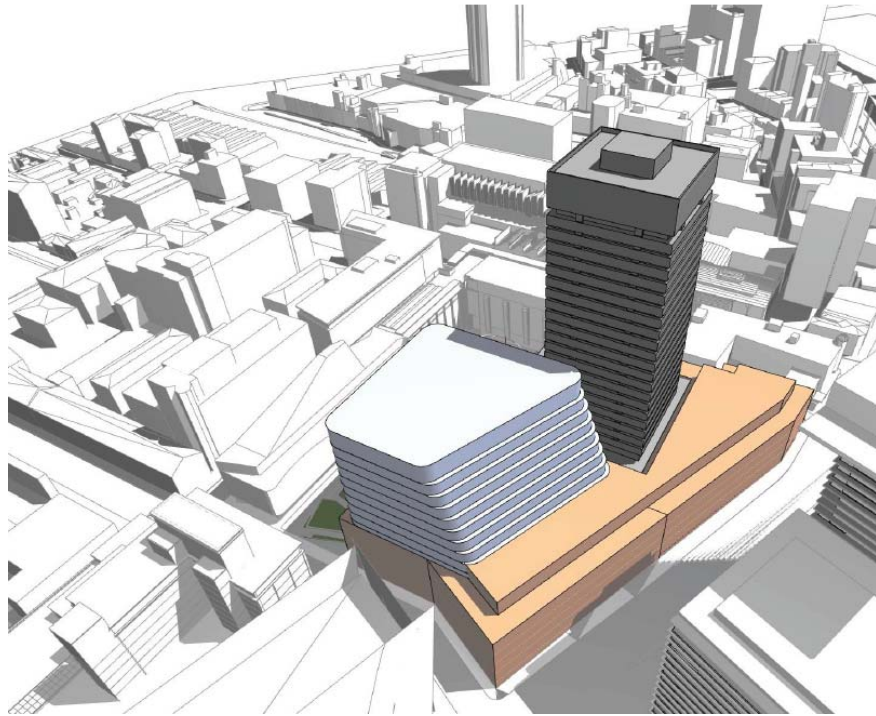


Figure 10 – Proposed expanded Building 2 envelope (in blue)

The height and form of the additional floors/storeys has been determined by fjmt following a detailed contextual urban design and amenity study and following an understanding of UTS's accommodation brief/requirements.

Key design moves/features of the expanded Building 2 envelope include:

- Significant setbacks to Broadway, varying from a minimum setback of 17.5m at the lower levels increasing to a 30m setback at the upper level;
- Provision of a 10m building separation to Building 1; and
- Orientating the expanded building envelope parallel to both Broadway and Alumni Green.

The overall expanded Building 2 envelope will accommodate a future building that:

- Will have an effective height of 14 to 15 storeys above Broadway and Jones Street (i.e. excluding basement levels);
- Continues to provide a pedestrian scaled 4-5 storey street wall to Broadway, Jones Street (part) and Alumni Green that aligns with the podium expansion of Building 1 (consistent with the approved Concept Plan); and
- Is integrated with the existing Building 1 podium through the alignment of floors.

The proposed modifications to the Building 2 envelope are illustrated on the updated Concept Plan Drawings at **Appendix A** and at **Figure 12** below.

3.1.3 Building 2 Development Site

The proposed modification application relates to Building 2.

The approved Concept Plan assumed the refurbishment and extension of the existing Building 2 by one additional floor (resulting in a 5-6 storey building plus plant level) and extending the building out to align with Jones Street, Broadway and Alumni Green (as illustrated within **Figure 11**).

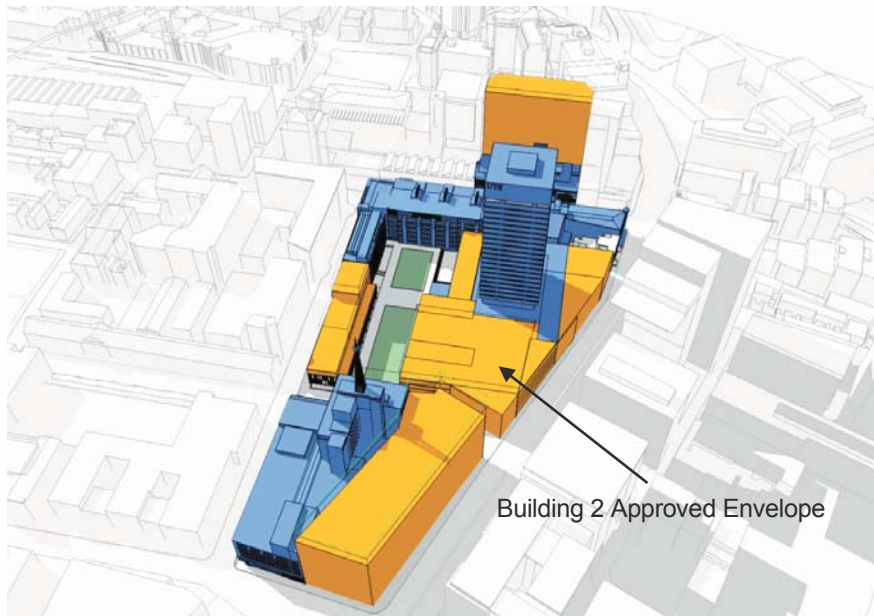


Figure 11 – Approved Concept Plan Envelopes

No specific amendments to the approved podium envelope for Building 2 are proposed, although it is now being contemplated that the existing building/structure will be demolished down to ground level (subject of a separate application) and replaced with a new podium building. One of the significant advantages of constructing a new podium building is the ability to match/align floor levels with Building 1 – supporting improved functionality and accessibility across the campus.

The podium frontages will continue to include an element of transparency to express the functions within – adopting the design concept of Lacoste + Stevenson (who as noted previously were awarded the Podium Extension project following a design competition process).

New uses planned to be accommodated within the Building 2 podium include:

- Library (main part of Library)
- Teaching Space
- Informal Learning Space
- Student Centre (Counter for all Student Services)
- Activate UTS (Student Union Spaces)
- Food and Beverage Outlets
- Open Space and Recreational opportunities

Nine (9) additional floors will be constructed above the approved Building 2 podium envelope (as illustrated within **Figure 12**), accommodating a range of educational uses such as:

- Library (part)
- Research
- Teaching
- Informal Learning
- Academic (including Faculty space)

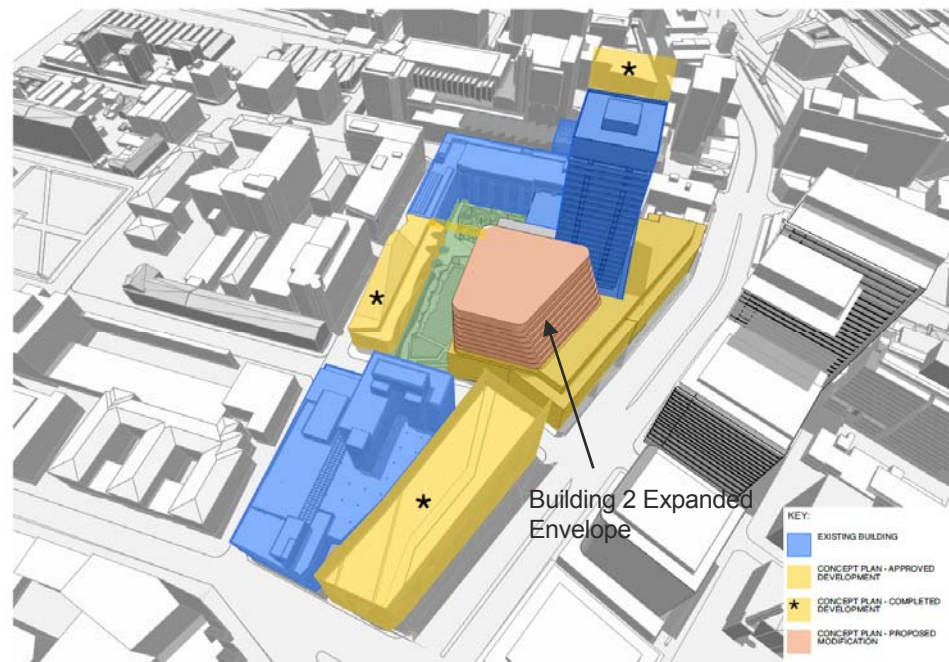


Figure 12 – Proposed expanded Building 2 Envelope

3.2 Proposed Modifications to the Approval

The above modifications necessitate amendments to the Concept Plan Approval. Words proposed to be deleted are shown in ~~***bold italics strike through***~~ and words to be inserted are shown in ***bold italics***.

SCHEDULE 2 PART A – ADMINISTRATIVE TERMS OF APPROVAL

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, ***and as modified by "Environmental Assessment Report UTS City Campus, Broadway Precinct Modification to Concept Plan" dated July 2015*** prepared by JBA Planning Consultants. including:

- (a) New Broadway Building and Thomas Street Building, with a combined GFA of 44,650m²;
- (b) Expansion of Buildings 1 and 2, with a combined additional GFA of ~~10,800m²~~ ***42,311m²***;
- (c) Expansion of Building 6 for the provision of student housing, with an additional 25,250m² GFA;
- (d) Modifications to Buildings 3, 4 and 10;
- (e) Modifications to Alumni Green, with a new Multi Purpose Sports Hall and book vault beneath;
- (f) Public domain improvements to Broadway and Thomas, Harris, Wattle and Jones Streets.

Reason: This condition is proposed to be updated to reflect the additional GFA and amendment to the Building 2 envelope sought under this modification.

A2. DEVELOPMENT IN ACCORDANCE WITH PLANS AND DOCUMENTATION

- (a) The development shall generally be in accordance with the following plans and documentation (including any appendices therein):

"Environmental Assessment Report UTS City Campus, Broadway Precinct Concept Plan" dated May 2009, and as amended by the Preferred Project Report "Preferred Project Report UTS City Campus Concept Plan" dated October 2009 ***and as modified by "Environmental Assessment Report UTS City Campus, Broadway Precinct Modification to Concept Plan" dated July 2015*** prepared by JBA Urban Planning.

Except for otherwise provided by the Department's modifications of approval as set out in Schedule 2, Part B and the Proponent's Statement of Commitments set out in Schedule 5.

- (b) In the event of any inconsistencies between the modifications of this concept approval and the plans and documentation described in Part A, Schedule 2, the modifications of this concept approval prevail.

- (c) In accordance with Section 75P(2)(a) of the EP and A Act, where there is an approved Concept Plan, any approval given under Part 4 of the Act by Council, must be consistent with that Concept Plan.

Reason: This condition is proposed to be updated to reflect the additional GFA and amendment to the Building 2 envelope sought under this modification.

3.3 Design Excellence

The achievement of design excellence for new development across the Broadway Precinct (and Haymarket Precinct) has been an important theme since the master planning process first started back in the 2000s, and is clearly linked to the long term strategic vision for UTS is 'to be one of the world's leading Universities of Technology'.

UTS is committed to design excellence for new development in the Concept Plan. A mix of techniques are being utilised to achieve design excellence.

Design competitions have been undertaken to deliver:

- Faculty of Engineering and IT Building;
- The Faculty of Science and Graduate School of Health Building;
- The Great Hall and Balcony Room Upgrade; and
- Alumni Green.

With completion of all of these projects it is abundantly clear that UTS's Broadway Precinct is a campus raising the bar and at the forefront of achieving design excellence.

With Lacoste + Stevenson winning the design competition for the extensions to the Building 1 and Building 2 Podium, UTS has directly engaged fjmt to work in collaboration with Lacoste + Stevenson to design and deliver the expanded Building 2. The direct appointment of such a pre-eminent architectural practice and one that is highly regarded for the design of tertiary education buildings ensures UTS's commitment to design excellence.

3.4 Proposed modifications to the Statement of Commitments

Modifications are required to the approved Statement of Commitments. Words proposed to be deleted are shown in ~~**bold italics strike through**~~ and words to be inserted are shown in **bold italics**.

Design Excellence

The proponent will 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 3.6 of this Modification Application.

Ecologically Sustainable Development

UTS will adopt the following sustainability targets for the site:

- 6 star Green Star Education target for the new Thomas Street Building;
- 5 star Green Star Education target for the new Broadway Building, ***extended Building 1 podium and new Building 2;***
- 4 star Green Star Education target for major refurbished buildings ~~***and podium extensions to Buildings 1 and 2;***~~
- Reduction in overall water campus consumption by up to 20 percent by 2010 (based on 2002 levels); and
- Meet or exceed the requirements of Section J of the Building Code of Australia for energy efficiency in building fabric and environmental systems.

To meet these targets, UTS will:

- Ensure the new Building 6 Tower for student accommodation meets the energy and potable water targets for residential flat buildings;
- Work with the proponents of the nearby Frasers Broadway development to investigate opportunities to incorporate complementary sustainability projects on both sites;
- Adopt water sensitive urban design principles, such as stormwater reuse and rainwater capture across the campus; and
- Adopt practices to minimise construction and operational waste including reuse 80% of demolition waste and investigate strategies.

In addition, UTS will investigate the following ESD initiatives as part of the Concept Plan:

- Integrating a 1.2-1.5 megawatt trigeneration plant into the UTS City Campus utilities system;
- Installing of a bio-digester plant in Building 2 to reduce operational waste; and
- Installing blackwater recycling system with sewer mining capacity (to enable black water to be used for chiller and toilet flushing purposes).

3.5 Proposed Modifications to Urban Design Principles

Modifications are required to the approved Urban Design Principles. Words proposed to be deleted are shown in ~~**bold italics strike through**~~ and words to be inserted are shown in **bold italics**.

High quality design

Achieve ~~**design excellence in architectural design through a design competition process**~~. UTS is committed to achieving **design excellence** ~~**an excellent standard of architectural design**~~ on the ~~**campus site**~~ through a design competition process **or direct appointment of a renowned architect with a record of achieving design excellence**. ~~**described in detail at Section 3.9.**~~

Multiple development opportunities

Transform multiple, disparate development sites into new education facilities that meet UTS's long-term needs. Development should be staged as the University's needs for additional student accommodation and educational, cultural and recreation services are refined over time.

Improved permeability

Capitalise on the site's urban character and maintain the informal transition between the campus and the remainder of the city by creating multiple entrances to the site, rather than a single front door. Each new building should be orientated to facilitate active uses on internal and external streets and provide new, or improve existing connections through and beyond the site.

The centre of the campus

Establish the centre of the campus as its academic, social and ceremonial heart. It encompasses the learning commons, which accommodates an expanded library, Great Hall, student services and social facilities. Services for staff and students are to be integrated with the centre of the campus to provide linkages and reinforce UTS's core.

New identity and entrances

Transform the ~~current~~ Broadway frontage of the site into a new “front door” to the campus. ***The creation of this new identity will be achieved through a new building constructed along Broadway between Jones and Wattle Streets together with the extension and integration of Building 1 and Building 2 podiums and additional floors above the Building 2 podium – completing a relationship in form with One Central Park.*** The extension of Buildings 1 and 2 will create a new multi storey entrance to the campus. Active uses at and below ground level will invite the community into the campus. ~~***A new building will be constructed along Broadway between Jones and Wattle Streets to create a new identity for UTS on Broadway: of the University's 320 metre street frontage to Broadway, 230 metres will be new or refurbished.***~~

Integration and connection

Improve the legibility of the campus by locating and emphasising major gateways and creating new internal and external streets. Multiple north-south and eastwest pedestrian “streets” will facilitate safe and attractive circulation across the campus and to the remainder of the city. Improved functional relationships will result from relocation of faculties into new and refurbished buildings.

Cultural and recreational hubs

Locate new cultural and recreational hubs across the campus. They include purpose-designed facilities such as ~~***a an cinema,***~~ art gallery, multi-purpose sports hall, cafes and retail outlets.

Improved open spaces

Create new, useable open spaces that will receive solar access throughout the year. Alumni Green will provide a prominent landscaped entrance to the campus from Jones Street, while new entrances through Building 6 will facilitate an accessible path from ~~***the UPN The Goods Line***~~ into the campus. ***Opportunities for useable open green roof spaces are to be explored.***

Sustainability

Achieve a high level of environmental performance for new and existing buildings on the site. All new construction on the campus will target a 5 star rating using the Education Tool prepared by the Green Building Council of Australia. Existing buildings that are to be refurbished will target a rating of 4 stars using the Education Tool.

Access

Capitalise on the site's excellent connections to public transport and pedestrian links to locality and beyond. New accessible pedestrian connections will be created across the campus to improve permeability, the existing quantum of on-site car parking will be maintained, and deliveries will be rationalised through dedicated entrances off Thomas Street.

3.6 Proposed Modifications to Design Quality Controls

Modifications are also required to the approved Design Quality Controls. Words proposed to be deleted are shown in ~~***bold italics strike through***~~ and words to be inserted are shown in ***bold italics***.

Building 2

- Limit the height of the ***podium*** building to 30 metres from ground level (including plant) at Broadway.
- ***Limit the height of the additional floors above the podium to 64.5 metres from ground level (including plant) at Broadway.***

- ~~Refurbish external facades.~~
- ~~Refurbish and extend the existing atrium to provide daylight into the building.~~
- ~~Maximise the extent of~~ Provide permeability of the ground plane along Jones Street and Alumni Green ~~through retail and student union shopfronts and student and public facilities.~~
- *Provide activation and pedestrian movement between Building 1 and Building 2, supporting a truly integrated campus.*
- Provide **prominent and clear** pedestrian entries off Jones Street and Alumni Green.
- Provide pedestrian protection along the length of the Broadway frontage.
- ~~Provide a pedestrian colonnade or awning along the northern edge of the building to Alumni Green. Provide a weather proof pedestrian connection near the northern edge of the building with connections to Jones Street and Alumni Green.~~
- Consider an element of transparency in the building design to express functions within.
- Incorporate design solutions to address wind conditions in the locality.
- *Minimise overshadowing impacts on the public domain and adjacent residential development.*
- *Maximise opportunities for view sharing where feasible within the limits of the site's Global Sydney CBD location.*
- *Explore opportunities to provide visual extensions to Alumni Green through the provision of green spaces on upper level terraces and roof spaces.*
- *Respect the existing Building 1 tower.*
- *Provide additional floors above the podium that are setback from the Broadway Street wall, integral with the podium and positively contribute to its surrounds.*

4.0 Community Consultation

UTS is well known for its level of transparency and commitment to consult and engage with its students, staff and more broadly its neighbours. Following on from the significant level of consultation undertaken by UTS as part of the original Concept Plan application, UTS recognised early on that again an appropriate program of engagement with students, staff and the local community would be required in relation to the subject modification application. UTS has accordingly retained KJA to advise and carry out this consultation (refer to **Appendix B**).

Prior to formally lodging this modification application, a range of communication and community consultation activities were undertaken throughout March 2015 to gain feedback on the proposed modification.

The objectives of this community consultation process included, to:

- Raise awareness about the proposal and articulate the rationale for seeking a modification to the approved Concept Plan;
- Ensure stakeholders were provided with accurate, consistent and timely information;
- Demonstrate a commitment by UTS to open and transparent communication and engagement;
- Provide an outline of the assessment process and expected timeframe for future development; and
- Establish a two-way consultation process and provide an opportunity to identify the key areas of community interest, and consider how any issues could be addressed prior to lodgement of the modification application.

The range of consultation tools and activities used to raise awareness of the proposed modification application included:

- A dedicated webpage;
- A project email address to enable feedback, enquiries and comments;
- A project display consisting of 3 x B1 project boards (set up between 9 March and 23 March 2015)
- Letter notification and letterbox drop to approximately 4,500 residents and businesses within a 500m radius of UTS on 5 and 6 March 2015;
- Two community drop-in sessions, held on 14 March and 16 March 2015;
- Correspondence via direct mail, email and/or phone contact with key UTS stakeholders, including:
 - Australian Broadcasting Commission (ABC)
 - Chippendale Residents Interest Group
 - Frasers Property
 - Haymarket Chamber of Commerce
 - Powerhouse Museum of Applied Arts and Sciences
 - TAFE NSW Sydney Institute
 - Pyrmont Ultimo Chamber of Commerce

Overall, the feedback received was limited (refer to **Appendix B** for details). This could suggest the proposal has a low level of interest, associated with the nature of the application being associated with an existing University and that impacts are perceived to be minimal.

It is noted that additional consultation will take place during the formal exhibition period of the modification application. This phase will incorporate more detailed information and therefore may generate more community interest.

During the formal exhibition of the modification application, UTS will also undertake additional consultation.

5.0 Strategic Justification

The original assessment accompanying the UTS City Campus Broadway Precinct Concept Plan provided a comprehensive review of the proposal's consistency with the relevant strategic policies and plans applying to the site at the time. The underlying intent of the proposed modification is to fulfil the vision of the original Concept Plan. As such, the findings of the original assessment are still relevant as the proposal continues to contribute to the achievement of a range of targets and actions established under strategic policies and plans.

Since the approval of the Concept Plan, the strategic planning framework has progressed at both a state and regional level. As such, an updated assessment of the proposal against the current strategic policies and plans is provided below, with an emphasis on the appropriateness of the additional GFA.

5.1 NSW 2021: A Plan to Make NSW Number One

NSW 2021: A Plan to Make NSW Number One is a long-term plan to deliver services in NSW, and sets clear priorities to guide government decision-making and resource allocation.

NSW 2021 is based around five strategies to rebuild the economy, provide quality services, renovate infrastructure, restore government accountability, and strengthen our local environment and communities. NSW 2021 sets out numerous goals under each of the five strategies.

The proposed modifications to the Concept Plan are consistent with a number of these goals, including improving education and learning outcomes for all students and strengthening the NSW skill base.

Under NSW 2021, Regional Action Plans have been developed to provide more focused strategic aims to particular areas. The UTS site is located within the Eastern Sydney and Inner West Regional Action Plan (RAP). This is a region of 216km² incorporating the Ashfield, City of Botany Bay, Burwood, Canada Bay, Canterbury, City of Sydney, Leichardt, Marrickville, Randwick, Strathfield, Waverley and Woollahra Local Government Areas. The region has a strong and diverse employment base, with key industries including education and includes world renowned education and research precincts (e.g. UTS).

The overall UTS City Campus, including the additional educational floor space/capacity at the Broadway Precinct that would be facilitated as part of this modification, will contribute to a number of regional priorities, including:

- Strengthen the positioning of inner city for international education opportunities;
- Supporting links with business to commercialise technologies and increase innovation;
- Increase the employment capacity within an established highly accessible centre with access to a range of services and amenities; and
- Deliver urban renewal that is balanced and sustainable.

5.2 NSW Tertiary Education Plan

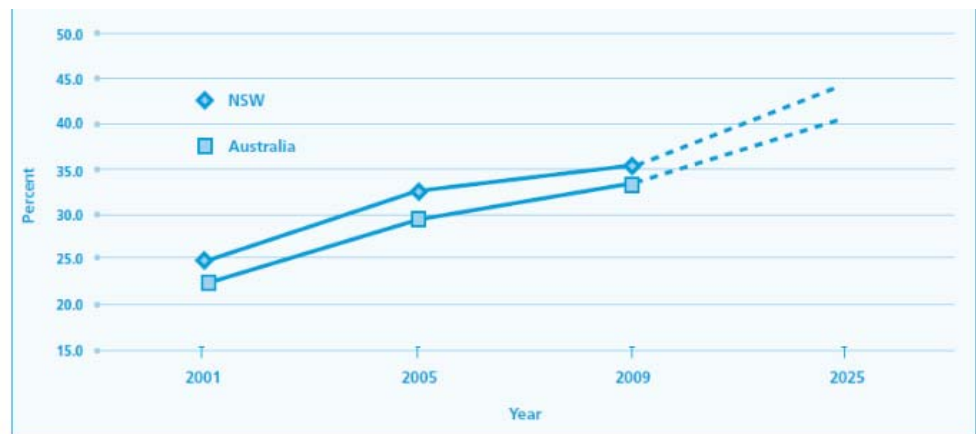
The NSW Government recognises that a strong and growing tertiary sector is critical to its economic future.

The NSW Tertiary Education Plan outlines the NSW Government's vision for strong and effective partnerships between government and the tertiary education sector, to drive the economic, social and cultural development of New South Wales.

The Plan sets out six strategic priorities for better aligning the tertiary education sector with the State's priorities for economic and social development.

One such priority is increasing participation and attainment in tertiary education to boost productivity. Aligning with the federal government's target, NSW has set a target to increase the percentage of 25 to 34 year olds who hold a bachelor degree or above to 44 percent by 2025 (refer to **Figure 13**). The proposed modification application and its resulting increase in the capacity of UTS's Broadway Precinct will support this goal.

Another goal relates to supporting education and research infrastructure initiatives (i.e. enable universities to respond more immediately to academic and commercial infrastructure needs, as well as student accommodation and transport needs). This modification application directly responds to this goal.



Source: ABS 6278 – Education and Training Experience 2009. NSW 2025 attainment rate calculated using ABS Series 8 population projections (ABS 3222).

Figure 13 – Proportion of 25 to 34 year olds with a bachelor degree or higher (trend and 2025 target)

Source: NSW Government

5.3 A Plan for Growing Sydney

A Plan for Growing Sydney (released in December 2014) is a strategic document that sets out the NSW Government's vision for the development of the Sydney Metropolitan area for the next 20 years. The Plan anticipates that the population of Sydney will increase by 1.6 million people over the next 20 years and sets out housing targets for the Sydney region (in which UTS is located within) at 664,000 additional dwellings. The NSW Government has also set a target of delivering 689,000 jobs by 2031.

The Plan aims to locate new housing in places to give people a choice of housing that is more affordable and to enable them to work closer to where they live. It encourages balanced growth by stimulating housing growth in both infill and greenfield areas and aims to make the best use of transport and infrastructure, making Sydney more sustainable and efficient. In planning for balanced growth, the Plan focuses urban renewal in areas surrounding existing centres, transport hubs and corridors, green spaces, and advocates efficient use of land in infill areas.

The proposed modification application directly supports a number of key goals, directions, actions and priorities established under the Plan which collectively aim to achieve the Government's vision for Sydney (as a strong global city and a great place to live).

Goals 1, 3 and 4 are of most relevance to the proposed modification application.

Goal 1: A competitive economy with world class services and transport

The modification application:

- Responds to the need to meet Sydney's growing needs in education;
- Supports new opportunities to grow the Sydney CBD footprint south;
- Supports the growth of tertiary education activities in a strategic centre/significant metropolitan health and education precinct (Broadway/Camperdown) – refer to **Figure 14** ; and
- Supports one of the NSW Government's priority industries (i.e. international education and research).

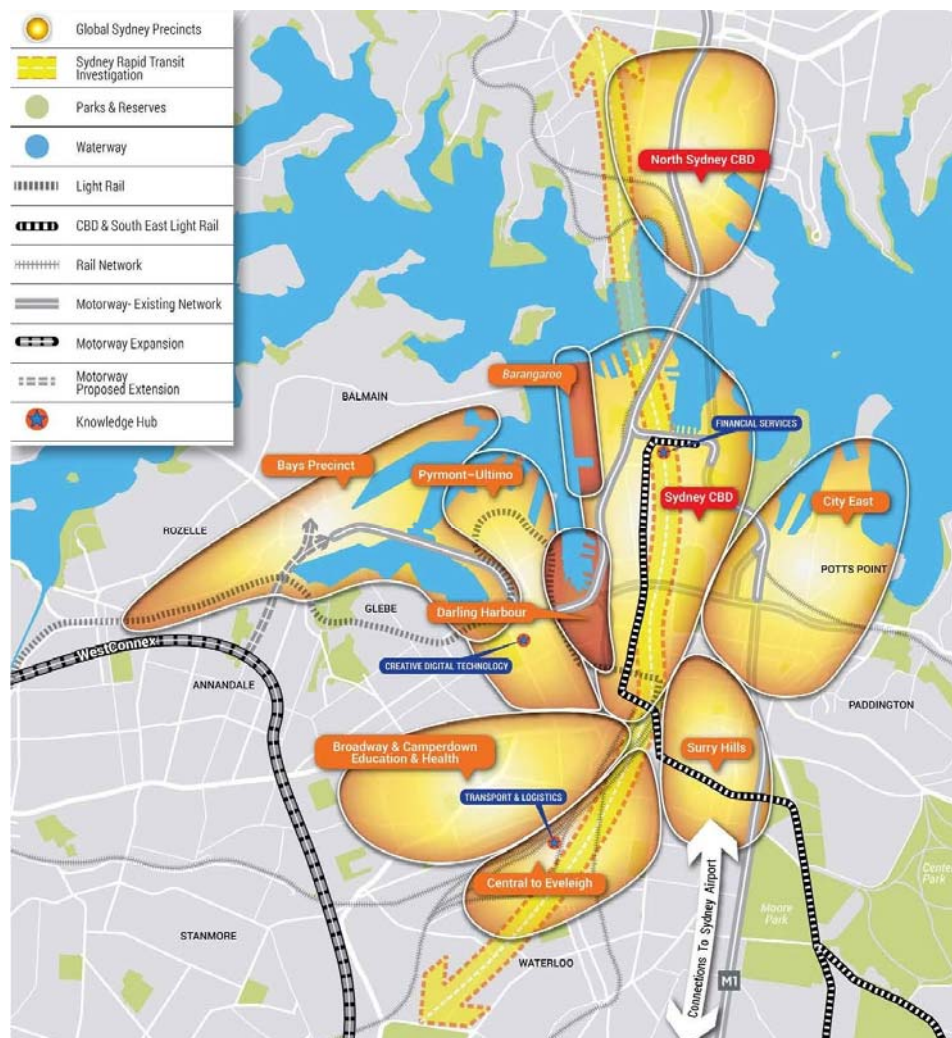


Figure 14 – Global Sydney

Source: NSW Government

Goal 3: A great place to live with communities that are strong, healthy and well connected

The modification application:

- Supports the delivery of a precinct that builds upon Sydney's vibrant cosmopolitan culture;
- Will provide an opportunity to create a new healthy built environment; and
- Matches a growing community with better access to jobs and essential social/cultural infrastructure.

Goal 4: A sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources.

The modification application enables the provision of additional density within a highly suitable urban infill location and therefore takes pressure off potential impacts on the natural environment (often) associated with urban sprawl.

Central Subregion

Key priorities established under the Plan for the Central Subregion (which includes the City of Sydney LGA) that the proposed modification application will support include:

- Supporting Global Sydney as a transformative place;
- Providing capacity for additional mixed use development in the precincts that make up Global Sydney; and
- Enhancing the Sydney CBD as Australia's premier location for employment, vibrant land uses, cultural activity, and iconic buildings/places.

Further, The Plan includes a specific priority for Broadway and Camperdown Education and Health Precinct in which the proposed modification application supports:

"Support education-related land uses and infrastructure around Sydney University, University of Technology Sydney, and Notre Dame University."

5.4 Sustainable Sydney 2030

Sustainable Sydney 2030 is a vision for the sustainable development of the City to 2030 and beyond. It includes ten specific targets to achieve a sustainable Sydney, five (5) big moves, as well as 10 strategic directions to guide the future of the City. The Proposed modification application supports a number of relevant targets, big moves, and strategic directions, including:

- Target 5 - 97,000 additional jobs with an increased share in finance, advanced business services, education, creative industries and tourism sectors.
 - The modification application supports a boost in the employment capacity of the site, directly contributing to the jobs target
- Big Move 1 – a revitalised City centre at the heart of Global Sydney
 - The modification application will contribute towards a stronger City Centre economy, along with providing for a more lively (day and night) and people-friendly City landscape;
- Big Move 2 - An integrated Inner Sydney transport network
 - The modification application supports sustainable travel patterns through increasing density that is reliant upon public transport
- Big Move 4 - Activity Hubs as a focus for the City's Village communities and transport
 - The modification application (supporting an increase in students in the locality) further strengthens the Harris Street activity hub.

- Big Move 5 - transformative development and sustainable renewal
 - With Central Park and UTS Broadway Precinct raising the bar in terms of design and sustainability, the modification application is able to further reinforce this growing green transformer.
- Direction 1 - A Globally Competitive and Innovative City
 - The modification application will support a future high quality urban design outcome that will provide new employment and learning opportunities. The investment into the site will help contribute to make Sydney attractive to global investors.
- Direction 2 - provides a road map for the City to become A Leading Environmental Performer
 - The modification application will support a more ecologically sustainable development on the site, with a target of achieving a minimum Greenstar rating of 5 stars.
- Direction 3 - Integrated Transport for a Connected City
 - The modification application will take advantage of the close proximity of existing heavy rail train stations, future light rail, a significant number of high frequency bus and ferry routes and the growing number of students choosing to live in the City.
- Direction 5 - A Lively and Engaging City Centre
 - The mix of uses expected to be accommodated on the site will improve the levels of activation in this part of the City.
- Direction 6 - Vibrant local communities and economies
 - The modification application supports a network of Activity Hubs as places for meeting, creating, learning and working for local communities.
- Direction 9 - Sustainable Development, Renewal and Design
 - The modification application will support a future development that is expected to include a range of sustainable building features.
 - The modification application is also consistent with the principle of Transit Orientated Development (TOD) in that new employment/education is provided in a highly accessible location thus reducing reliance on the private motor vehicle.

5.5 Summary of Strategic Justification

In summary, the proposed modification to the Broadway Precinct Concept Plan will:

- facilitate a significant boost in the capacity of UTS to provide tertiary education to meet the growing needs and demands of Sydney, NSW, Australia and the world more broadly;
- create additional jobs/workers;
- support a more skilled workforce; and
- pave the way for a further 'iconic' building to be delivered at UTS.

The provision of additional jobs and educational uses at UTS Broadway Precinct is consistent with all the relevant strategic planning documents established to guide the growth of Sydney, including the NSW 2021: A Plan to Make NSW Number One and A Plan for Growing Sydney. The proposal has significant planning merit and is consistent with these strategies as it will:

- Reinforce the Sydney CBD as a global city with world class services and infrastructure.
- Contribute to the delivery of a vibrant and liveable CBD through integrating land use planning with transport infrastructure. The UTS Broadway Precinct is highly accessible as it is located close to a train station, light rail and benefits from connections to a large number of bus services to the key destinations such as the Sydney CBD. The provision of additional capacity at UTS Broadway Precinct will allow more people to learn in such a highly accessible location, contributing to making Sydney connected through reducing travel times, growing patronage on public transport and providing people with easy access to alternative modes of transport.
- Contribute to providing additional capacity within the tertiary education sector.
- Contribute to providing new employment to meet the State Government's new jobs target, which requires over 34,000 new jobs to be created every year.

6.0 Environmental Assessment

This section of the report provides an assessment of the key environmental effects which relate to the proposed amendments to the Concept Plan as described in the preceding chapters of this report.

6.1 Urban Design and Built Form

6.1.1 Historic Context

The original plans developed by the Government Architect's Office of the NSW Department of Public Works (Design Architect Michael Dysart) for the UTS Broadway Precinct in the 1960s included along Broadway three buildings/towers of varying heights set above a podium (refer to **Figure 15**). The buildings were intended to act as the gateway to the University. Obviously this concept never materialised in full, with only one of the towers built (Building 1).

The proposed modification application however provides the opportunity for the Government Architect's concept to evolve and be re-imagined – re-introducing additional floors above the podium at the main entry/gateway to the campus (refer to **Figure 16**).

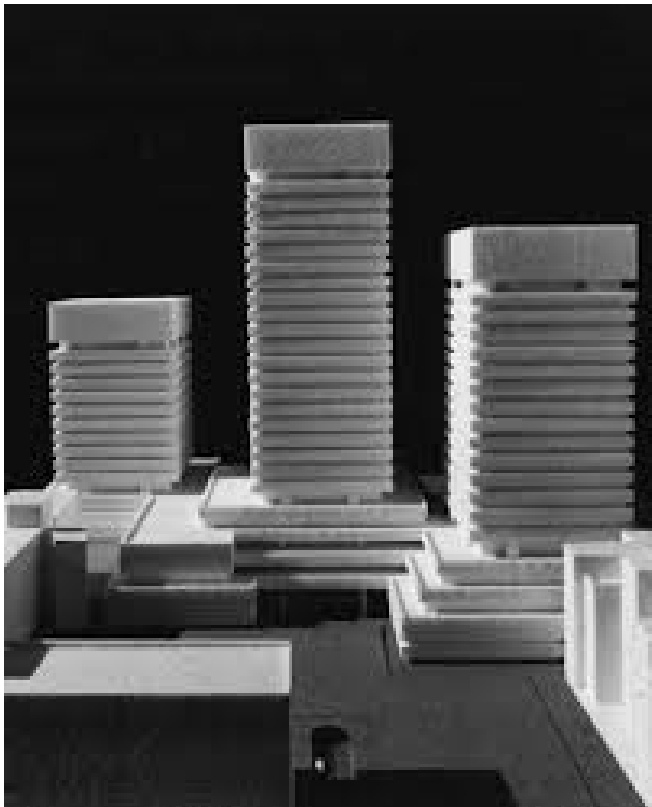


Figure 15 – Michael Dysart's 1960s UTS concept

Source: Michael Dysart

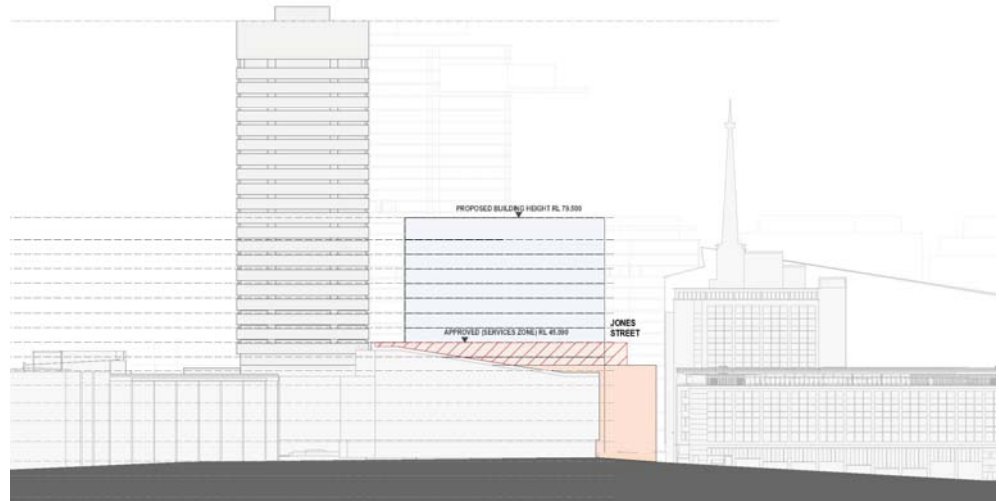


Figure 16 – Proposed amended Building 2 envelope (light blue)

Source: *fjmt*

6.1.2 Modern Context

Since the UTS City Campus Broadway Precinct Concept Plan was prepared and approved in 2009, there has been a seismic shift in the growth and development of the Sydney CBD, particularly the western and southern corridors (attributed to Barangaroo, the Sydney International Convention, Exhibition and Entertainment Precinct Project, Central Park, the Goods Line etc) – refer to **Figure 17**. The delivery of new buildings and spaces across the UTS Broadway Precinct as well as the UTS Haymarket Precinct has also contributed to this rejuvenation.

Together Central Park and the renewed UTS Broadway Precinct create an exciting and vibrant addition to the Cityscape – strengthening the western gateway into the CBD.

The momentum and renewed energy that UTS and Central Park have created in this southern corridor of the CBD is being embraced by the State Government with a key strategic planning policy underpinning the success of Global Sydney to grow the CBD south. It is still relatively early days in the planning, but it is evident (as illustrated within **Figure 18**) that significant height and density is planned in the Central to Eveleigh Corridor.

In this context, the additional capacity, height and density being proposed under this modification application at the UTS Broadway Precinct is considered to be appropriate.

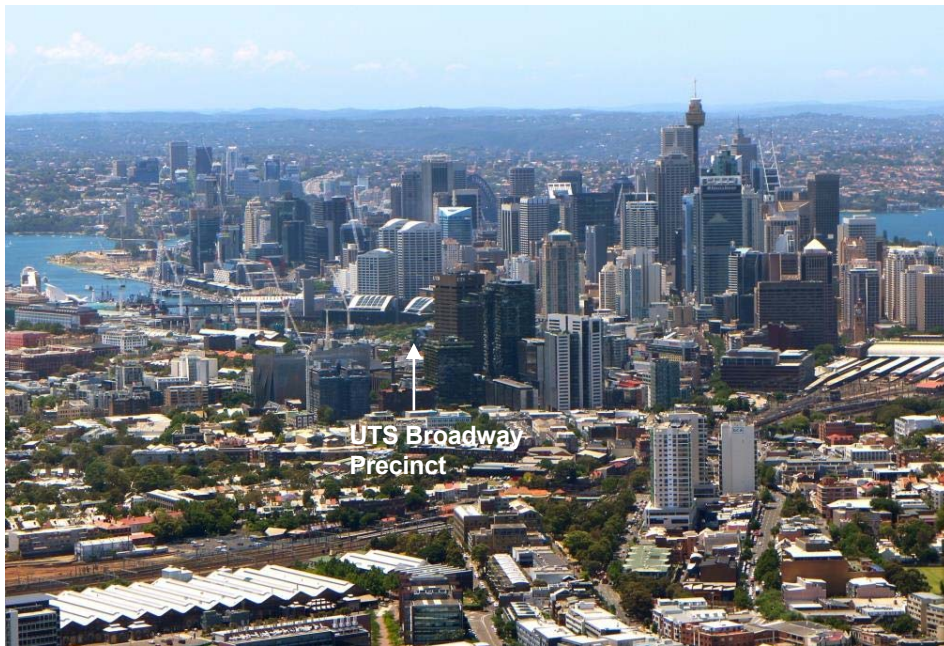


Figure 17 – The changing face of the Sydney CBD

Source: Michael Rowe



Figure 18 – Central to Eveleigh visioning

Source: UrbanGrowth NSW

6.1.3 Massing Form and Suitability

The design process involved in determining the amended Building 2 envelope has been the subject of a rigorous site analysis and understanding of the functional/capacity requirements of UTS.

Key factors that have influenced the amended Building 2 envelope include:

- The relationship and setting to the existing Building 1;
- Preserving solar access to the public domain and adjacent residential development within One Central Park;
- Maintaining important view corridors along Broadway (refer to **Figure 19** where it is evident that additional floors above the approved Building 2 envelope are not visible); and
- Relationship to the surrounding context.

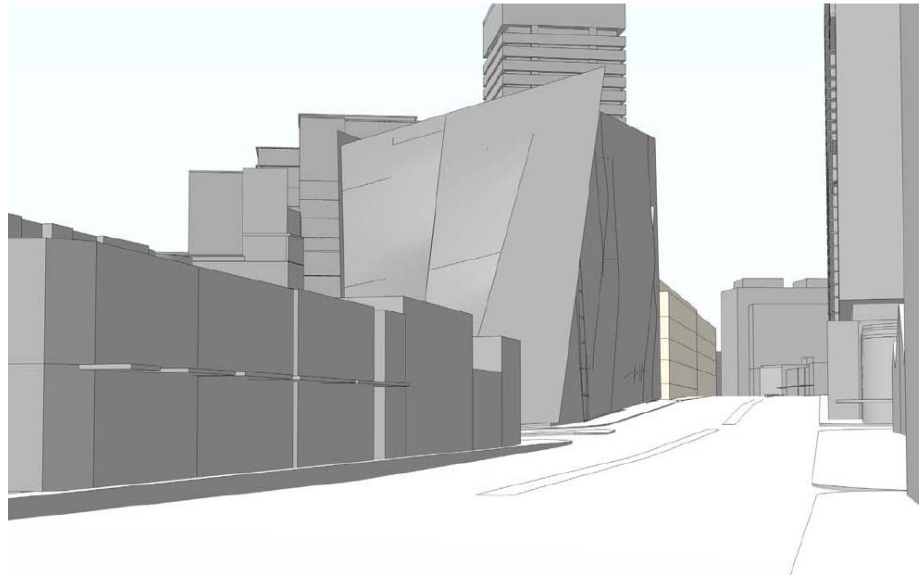


Figure 19 – View east along Broadway with proposed amended Building 2 envelope modelled

Source: Architectus

Fundamentally, the height datum of the amended Building 2 envelope has been set by One Central Park (West). In other words, One Central Park has opened up the opportunity for a new dialogue between the East and West towers of One Central Park with Building 1 and the proposed amended Building 2 of UTS (refer to **Figures 20 and 21**).

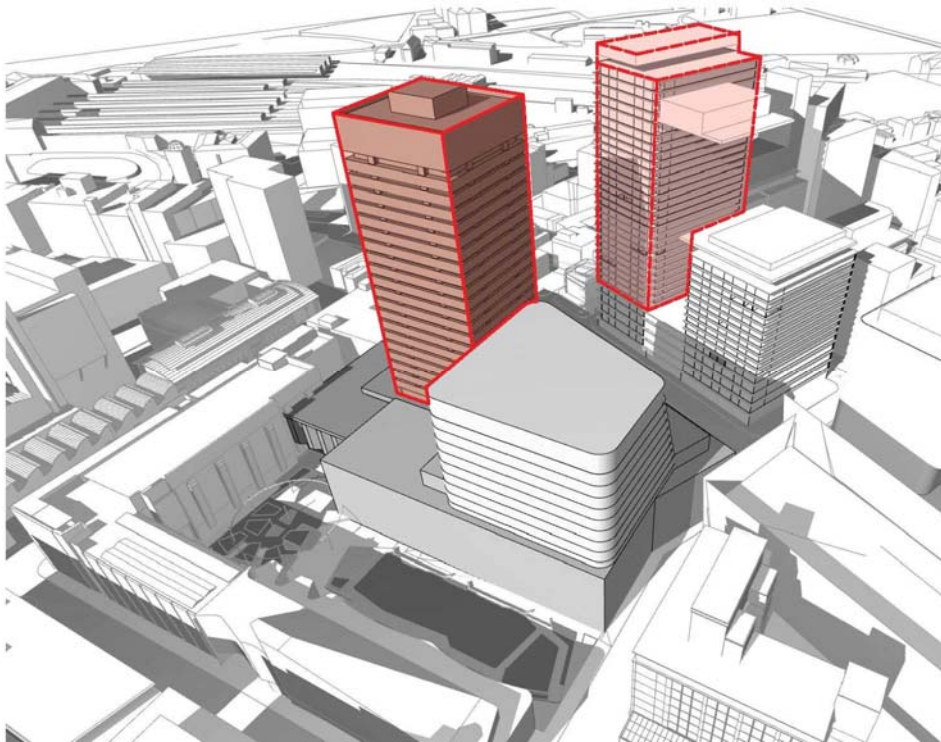


Figure 20 – Relationship - One Central Park East and UTS Building 1

Source: *fjmt*

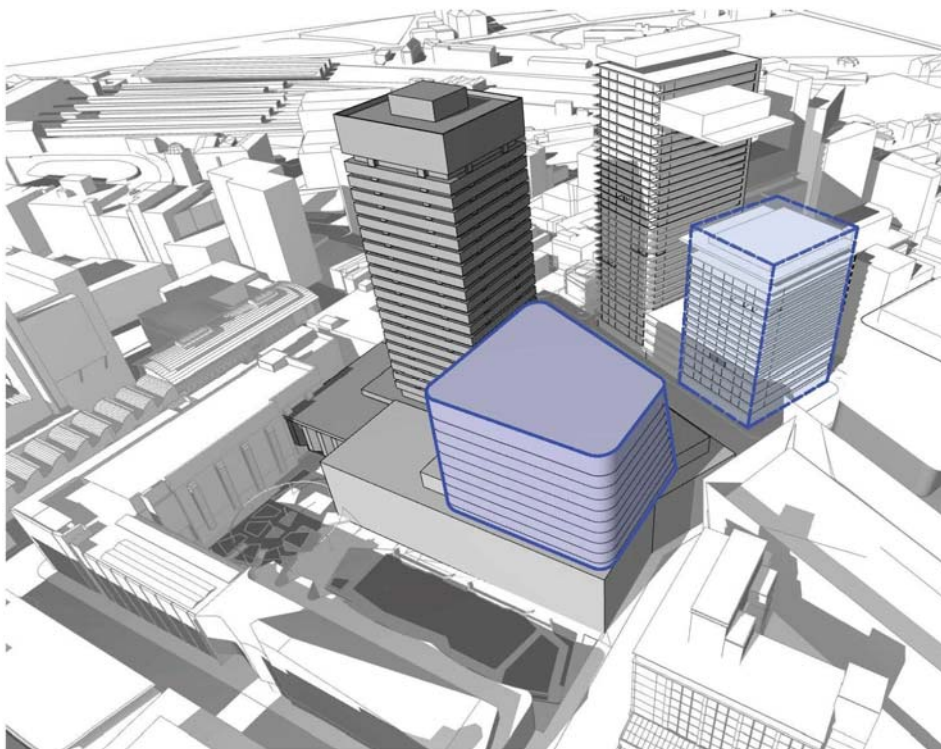


Figure 21 – Relationship – One Central Park West and Proposed modified Building 2

Source: *fjmt*

6.1.4 Overshadowing

A detailed analysis of the proposed additional shadows cast from the amended Building 2 envelope has been undertaken by fjmt and included at **Appendix A**. As illustrated, the form and massing of the amended Building 2 envelope has been strongly influenced by a key principle adopted by UTS and the project team to minimise overshadowing impacts on the adjacent residential dwellings within One Central Park.

The detailed shadow studies reveal the following:

- The additional shadows cast by the additional floors above the approved Building 2 podium envelope for the most part either fall onto non-residential floors/uses or are contained within the shadows cast by the approved Concept Plan envelopes (refer to **Figure 22**);
- The additional floors are configured to preserve solar access to all apartments within One Central Park in accordance with the planning controls/framework established for that site; and
- There is no adverse additional overshadowing impacts to Block 1, Central Park.

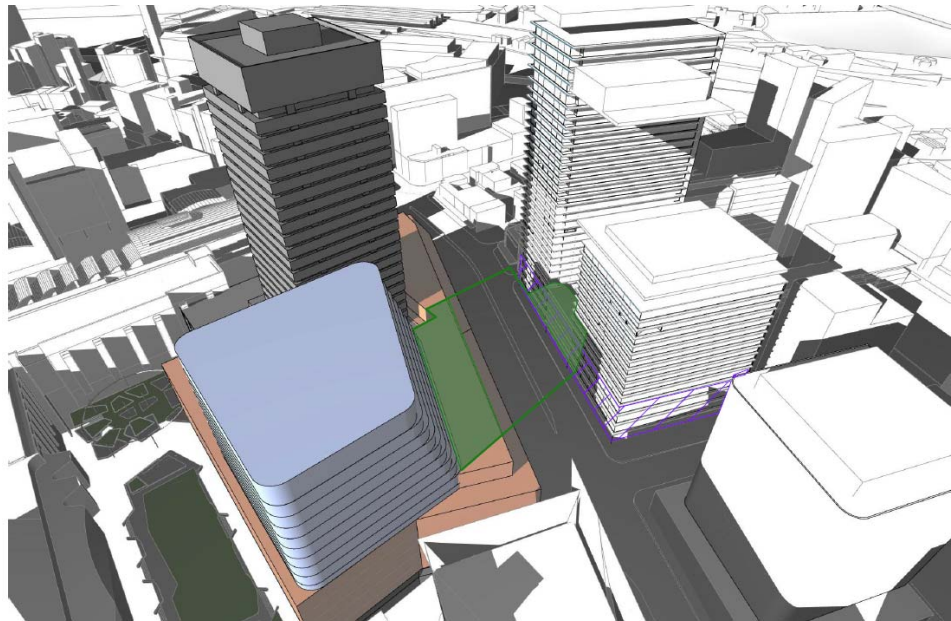


Figure 22 – Shadow analysis – 2.00pm winter solstice (green represents additional shadow cast by additional floors)

Overall, the additional floors above the approved Building 2 podium do not result in any material overshadowing impacts on the public realm or surrounding uses. The result has been achieved through a responsive and sensitively designed building form and massing. The future application for the detailed design of the building will address overshadowing impacts in detail.

6.1.5 Design Excellence

Appointment of Francis Jones Morehen Thorp as Concept Plan design and project architects for re-imagined Building 2

When selecting the architect for the new scope for Building 2, UTS was mindful of the need to select a firm that was compatible with the winners of the Building 1 and Building 2 Podium Extension Competition – Lacoste + Stevenson, and included as key criteria for selection:

- Methodology for collaboration with Lacoste + Stevenson;
- Adoption and full integration with the Lacoste + Stevenson scheme;
- Experience with University work; and
- Philosophy regarding contemporary library design.

A public expression of interest was accordingly launched in January 2014, with 22 submissions received. From these 22, six (6) firms were invited to participate in a Request for Tender (RFT) process/stage.

Evaluation of the RFT submissions resulted in the short listing of four (4) firms, with inspections subsequently undertaken by UTS of completed buildings by these firms. Ultimately, the selection panel were of the collective opinion that fjmt were the most suitable practice with a clear workable synergy with Lacoste + Stevenson and an exemplary record of design excellence.

It is considered that this approach of directly appointing/selecting the architect in this instance is valid and appropriate where it is necessary for the integration of the competition winning podium scheme into the broader UTS Central project (the project name given that encapsulates the Building 1 podium extension and Building 2).

fjmt credentials

Francis-Jones Morehen Thorp is a multi-award-winning Australian architectural practice dedicated to design excellence and the enhancement of the public domain. Through studios in Sydney and Melbourne, and project offices interstate and overseas, fjmt undertake public, institutional, commercial and residential commissions throughout Australasia and recently in Europe.

Of critical relevance to this project is fjmt's unrivalled track record and history of delivering tertiary education buildings. Included at **Appendix C** is a key selection of public and civic buildings, tertiary education buildings, and commercial buildings designed by fjmt which demonstrate the ongoing delivery of design excellence in buildings similar to that proposed by this project.

Importantly, fjmt have the capabilities and experience to appreciate the intricacies of and successfully deliver important tertiary education buildings in partnership with public authorities. Additionally they have extensive experience in library design and the requirements of Universities.

Summary

fjmt has been recognised and awarded throughout Australia and the world by government, industry and their peers. A full list of fjmt's education experience and list of awards is provided at **Appendix C**.

fjmt have the capability to design a building that will provide a positive interaction with its neighbouring buildings and environment and will greatly enhance the southern entrance to the Sydney CBD.

Ultimately, the future detailed development application for Building 2 (as proposed to be modified) and Building 1 podium (UTS Central Project) will need to demonstrate the achievement of design excellence. With designers fjmt and Lacoste + Stevenson working in collaboration, the ability to achieve design excellence is assured.

6.2 Traffic, Transport and Access

A Traffic and Parking Assessment Report (included at **Appendix D**) has been prepared by Positive Traffic in support of the proposed modification application. The assessment includes:

- a review and builds upon the previous comprehensive assessments undertaken to support the original Concept Plan;
- analysis of existing traffic conditions and public transport operations; and
- assessment of the traffic generation, parking provision and access arrangements of the Concept Plan (as proposed to be modified).

A summary of Positive Traffic's assessment is provided below.

Traffic

As the development does not propose any additional on – site parking it is not expected by Positive Traffic that the increase in floor space would have any significant traffic generation. Further, as the surrounding road network for some distance is extremely well protected with period parking / resident parking restrictions, the use of private vehicles is significantly discouraged.

Parking

Consistent with the approach adopted across the Broadway Precinct, the increase in floor space is not proposed to be supported with any increase in parking provision on site. This approach is considered by Positive Traffic to be appropriate given the extensive access available for students, staff and visitors to a range of local and regional public transport services.

Public Transport

The key transport implications of the modified Concept Plan are considered by Positive Traffic to be:

- Additional activity at the site, with higher trip generation than the Approved Concept Plan. The additional trip generation would be somewhere between 10% and 20% of that considered under the Approved Concept Plan.
- Given the excellent public transport accessibility of the site; the adequate bus capacity; and additional transit capacity that is expected to come on stream as major projects come to fruition, it is expected that a large share of this additional trip generation would be accommodated within the surrounding transit system.
- In addition, with the increasing supply of student and residential dwellings within the City South precinct, remaining travel demand is likely to be supported by walking and cycling from/to the local area.
- With no increase in car parking capacity as part of the proposed Modified Concept Plan, there is not expected to be an appreciable increase in traffic generation of the site.

Conclusion

In summary, Positive Traffic advise that:

- The proposed increase in floor space is not expected to generate any additional traffic.
- The potential traffic impacts of the Concept Plan as a whole have been fully assessed in previous investigations by the Roads and Maritime Services and were found to be acceptable.
- The approach to not provide any additional on-site parking is considered appropriate given the location of the development.

- The existing public transport network operations servicing the site is capable of accommodating any increase in demands which would occur with an increase in student population.

From the contemporary strategic transport planning context, Positive Traffic concludes that it is reasonable to conclude that the UTS City Campus, Broadway Precinct will continue to be well served by public transport, while the capacity of the trunk transit network will increase over time, and that additional floor space contained in this proposed Modified Concept Plan would be well supported by these future directions.

Overall the traffic impacts of the modified proposal are considered by Positive Traffic to be satisfactory.

6.3 Visual and View Analysis

A comprehensive Visual and View Impact Analysis has been prepared by Architectus in support of the proposed modification application and is included at **Appendix E**. This analysis builds on the original Visual Analysis prepared by Clouston Associates in support of the Concept Plan.

To support the visual analysis key public domain views, view corridors and public vantage points within and surrounding the UTS Broadway Precinct Site have been identified.

Computer model views have been prepared for a total of seven (7) public domain views and vantage points along Broadway, Jones Street and Chippendale Way (refer to **Figure 23**). Only two (2) key buildings in the vicinity of the Building 2 are identified as being impacted or potentially impacted on by the proposed amendments to the Building 2 envelope, being One Central Park and Block 1 Central Park (refer to **Figure 23**).

6.3.1 Public Domain Views

Architectus advise the following with respect to the visual impact of the proposed modification application on public domain views:

- The visual impact on the public domain is generally no more than moderate, with a low change from the approved Concept Plan.
- The amended Building 2 envelope is seen from well-utilised pedestrian locations, however does not block any views of items that are of high significance.
- The massing is considerably set back from Broadway, reducing its bulk and maximising opportunities to view the sky.
- The impacts are acceptable in light of the building form and scale being consistent with other buildings in the locality.



Figure 23 – Selected public domain and private views

Source: Architectus

6.4 Private Views

The detailed analysis undertaken by Architectus reveals that there will be some impacts on private views from Central Park, including impacts considered to be high (refer to **Appendix E** for details). On balance however, Architectus find the impacts to be reasonable/acceptable in the circumstances given:

- The site's context is one within a Global City (Sydney is Australia's leading global city and the gateway to Asia) and it would be unreasonable to expect that views from most of the adjoining residences should remain unobstructed.
- The impacts associated with the proposal are considered to continue to provide for a reasonable 'outlook' from apartments that may nonetheless have a change in 'view', consistent with current planning objectives, strategies, principles and development controls for the CBD which recognise that outlook, as distinct from views, is the appropriate measure of residential amenity within a global CBD context. Outlook is retained from all affected apartments with an appropriate separation distance between buildings/towers and with space / daylight provided.
- The reduction in some views is inevitable and results from a proposal to create a new modest building where there are only currently low rise buildings in existence. The interruption of existing private views that are currently unimpeded by any development is inevitable in the context of urban renewal and is not unreasonable having regard to the highly urbanised global CBD environment of Sydney within which the land is situated. Notwithstanding, the proposed development has accommodated view sharing between and above buildings and has achieved the principles of view sharing appropriate in an highly urbanised CBD location seeking to retain a combination of water, horizon and CBD skyline.

- The majority of apartments impacted are dual aspect and retain alternative views of value.
- A skilful approach has been adopted to the formulation of the amended Building 2 envelope in order to minimise impacts, whilst acknowledging there are functional requirements for an educational facility that present some limitations.
- There is strong strategic merit and justification to support the proposal and its delivery of additional capacity at a tertiary education facility.

6.5 Wind

The applicant has commissioned an independent review of the proposed amended Building 2 envelope to assess the potential wind impacts of the development on the pedestrian level wind conditions.

The review has been undertaken by Cermak Peterka Petersen Pty Ltd (CPP), who were also engaged by UTS during the Concept Plan stage, refer to **Appendix F**.

Existing Wind Conditions

Local existing wind conditions are characterised as follows:

- The site is relatively exposed to winds from the west and south.
- Uncomfortable wind conditions are known to occur at some locations throughout the UTS Broadway Precinct, most noticeably on Broadway in the vicinity of Building 1 under the action of winds from the west.
- Onshore winds from the north-east lose considerable intensity as they pass through the southern Sydney CBD and eastern suburbs. Winds from the north-east are more channelled along Broadway with the inclusion of One Central Park. Winds from the north-east have moderate but prolonged intensity at the site with potential to deliver cooling breezes in the summer months.
- Prevailing winds from the west are channelled along Broadway with minimal upstream blockage presented by the wide open roadway extending back to the University of Sydney. The staggered alignment of roads within and surrounding the UTS Broadway Precinct assist in mitigating the channelling effect in these areas remote from Broadway. Channelling is instigated by downwash from larger buildings on the edge of the development resulting in stronger wind conditions around the base of these buildings, which is expected to occur between the Faculty of Engineering and IT Building and the proposed building on the south-east corner of Abercrombie Street and Broadway (Central Park).

Assessment and Conclusions

The conclusions reached by CPP include:

- Due to the size and location of the proposed additional floors above the approved Building 2 envelope relative to the surrounding buildings, wind conditions at pedestrian level around the site are not expected to be significantly affected by the increase in building massing.
- Wind conditions at most locations around the site are expected to remain suitable for pedestrian standing and walking from a comfort perspective, and pass the distress criterion. The exception may be wind conditions on Broadway and Jones Street, and to quantify the advice, for a development of this size and location, wind-tunnel testing is recommended during detailed design development.

It is noted that the existing approved Concept Plan Statement of Commitments already addresses wind, where UTS commits to undertake detailed wind impact assessments (i.e. wind tunnel testing) for each new building during the detailed design phase.

6.6 Social Infrastructure

UTS has engaged experts HillPDA to prepare a Social Impact Statement (SIS) in support of the proposed modification application, included at **Appendix G**.

The SIS has been prepared having regard to the original Director General Requirements (DGRs) that were issued for the Concept Plan application which called for a need to demonstrate appropriate provision of social infrastructure and services to support the expected population increase. The SIS also builds upon the SIS prepared by RM Planning and submitted in support of the original Concept Plan application.

As noted, the existing student population (17,100 EFTSL) already exceeds the population planned for within the Concept Plan (15,000 EFTSL). The projected student population will see this number increase again (to 19,500 EFTSL). Staff numbers (Full Time Equivalent) are correspondingly expected to increase (from 2,540 in 2014/15) to 2,915 by 2020.

The social infrastructure associated with a university population can be divided into the following categories:

- Student accommodation;
- Open space;
- Sport and recreation facilities;
- Cultural facilities;
- Childcare facilities;
- Food and beverage outlets;
- Student services;
- Commercial services; and
- Retail.

HillPDA has undertaken an analysis of the above existing/planned provision of social infrastructure located on the UTS City Campus, Broadway Precinct and assessed its adequacy to accommodate increased demand from the proposed modification application.

Table 1 provides a summary of HillPDA's assessment of the adequacy of social infrastructure in the context of the proposed modification application, including identifying mitigation measures (if required).

Table 1 – Summary assessment of the adequacy of social infrastructure

Social infrastructure item	Consideration	Rating of impact	Mitigation measure	Commentary
Student housing supply	Will the modification application improve student housing supply?	Slightly negative	None required	The modification application does not include provision of student accommodation. The Concept Plan did provide for an additional 720 beds. The inner city campus context presents a constraint to additional provision. UTS is actively encouraging/supporting purpose built student accommodation in the locality. There is a significant pipeline of student accommodation projects that will address student accommodation needs.
Open space provision	During construction, will access to open space be compromised for students/staff/visitors?	Slightly Negative	Mitigation measure required	During construction, adequate signage should be put in place to advise students/staff/visitors of alternate routes to access Alumni Green.

Social infrastructure item	Consideration	Rating of impact	Mitigation measure	Commentary
	Post construction, will additional open space provision be provided for the student / staff on the Broadway Campus?	Significant Positive	None required	Additional open space will be facilitated through the modification application (podium and rooftop)
Sporting and Recreation Facilities	Will there be additional sporting and recreational facilities provided as part of the modification application?	Significant Positive	None required	Additional active and passive outdoor space will be facilitated through the modification application (podium and rooftop) Opportunities include facilities such as basketball courts and/or tennis courts and/or a running track.
Cultural Facilities	Will additional cultural facilities be provided as part of the modification application?	Moderate Positive	None required	The approved Concept Plan facilitates an additional +450sqm for a gallery, library and other exhibition areas..
Childcare	Is additional childcare provision proposed as part of the modification application?	Moderate Negative	Mitigation measure required	The modification does not incorporate a new child care facility but rather relies on the provision of spaces in the existing on and off campus facilities. UTS is investigating opportunities to provide additional child care facilities as part of its broader campus planning.
Food and Beverage Outlets	Are additional food and beverage outlets proposed as part of the modification application?	Moderate Positive	None required	On campus provision is currently underutilised and off campus provision is more than adequate.
Student Services	Will additional floorspace for student services be provided?	Moderate Positive	None required	The UTS Masterplan proposes an additional +200sqm of student services within either Building 2 or elsewhere on campus.
Commercial Services	Will additional commercial services be provided as part of the modification application?	Neutral	None required	The UTS Masterplan has capacity to include additional commercial services on campus if required by 2020.
Retail .	Is additional retail floorspace proposed as part of the modification application?	Neutral	None required	Some existing retail on campus is underutilised. There is also considerable off campus provision in particular at Central Park opposite and within 500m walk at the Broadway Shopping Centre thereby reducing the need for additional supply.

Mitigation Measures

In light of the above referenced impacts, there are two social infrastructure items that HillPDA recommend mitigation measures, being open space (from a future construction perspective) and childcare. These mitigation measures are reproduced below:

- During the reconstruction of Building 2 (CB02), UTS is to place alternate access routes in and around the Broadway Campus to ensure safety and ease of access for students, staff and visitors to the Broadway Campus;
- Prior to the reconstruction of Building 2 (CB02), UTS is to ensure appropriate signage is in place to inform students and staff on the building works to be carried out. The signage would include but not be limited to, a description of the nature and scope of the building works, where the works will be carried out, duration of works and the contact details of the site supervisor. The signage should be displayed from the first day to the last day of construction and should be placed prominently so it can be seen and read easily from each frontage of Building 2 (CB02) where building work will take place; and
- Further consideration and investigation by UTS of opportunities to provide additional child care spaces as either part of the campus Masterplan or in partnership with an external provider.

Conclusion

In summary, HillPDA advise the following:

- The additional floorspace and building envelope proposed as part of the modification application aims to better cater to the existing and forecast growth of students and staff on the Broadway Campus.
- Education is an important social benefit that enhances the economic and social well-being of individuals whilst also supporting the economic growth of NSW in accordance with the objectives of the State Government's Industry Action Plans.
- The future architecturally designed Building 2 forms part of the broader campus reinvigoration and enhances a range of services on campus.
- The proposed modification and the subsequent redevelopment of Building 2 has also been designed to positively contribute to the public domain by responding to the new development at Central Park and adjoining UTS buildings; thereby also creating a greater walking experience for pedestrians through the city domain.
- The inner city nature of the campus may be considered a constraint to the University's ability to provide all of the necessary services and facilities on site compared to some more suburban locations, however, the inner city location is also a significant positive in complementing and enhancing the quantum and range of social infrastructure provided on campus.
- Considering each of these factors the proposed modification to Building 2 is considered a positive change that would enhance educational and employment opportunities for a broader range of students and staff within a highly accessible and well serviced location of Sydney.

HillPDA concludes that the social impacts of the proposed modification are considered acceptable and the modification is supported.

7.0 Conclusion

This Section 75W modification seeks approval for amendments to the UTS City Campus Broadway Precinct Concept Plan, namely the provision of additional floor space; amendment to the approved building envelope for Building 2, and changes to the Design Quality Controls/Principles and Statement of Commitments.

Following the delivery of the majority of stages within the Concept Plan, it is clear that the original assumptions underpinning the Concept Plan with respect to student demand and capacity have changed due to changes in the tertiary sector. UTS is expanding significantly in to the future and is seeking to increase the amount of usable floor space at its Broadway Precinct so that the central facilities and five (of seven) faculties that are situated there can expand contiguously. Therefore, with only one site left that is capable of accommodating additional growth, this modification application is being sought to increase the floor space and height of Building 2.

The assessment contained within this report has resolved that there will not be any adverse environmental impacts resulting from the proposed modifications. The proposed modifications will facilitate the final stage of development within the Broadway Precinct Concept Plan and further strengthen UTS's position as one of Sydney's and Australia's leading tertiary education providers.

The proposal has significant planning merit as it will:

- Facilitate the addition of a new iconic (exemplar design excellence) building for the UTS City Campus Broadway Precinct and Sydney CBD more broadly, helping to reinforce its global status;
- Assist in meeting the increased demand for tertiary education;
- Support the creation of additional jobs;
- Support a more skilled workforce;
- Strengthen a key industry of Sydney and NSW that plays a crucial role in making NSW Number One;
- Provide opportunities to improve the extent of open space across the Broadway Precinct; and
- Strengthen the western gateway to the Sydney CBD

Due to the significant merit of the proposed modifications and the lack of any adverse environment, social and economic impacts or impacts on the amenity of existing residents at Central Park, the modifications are appropriate and supportable.