E T H O S U R B A N

Section 75W to Concept Plan (MP08_0116)

Bon Marche and Science Precinct Redevelopment UTS City Campus, Broadway Precinct GFA and Building Envelope Amendments

Submitted to the Department of Planning and Environment On behalf of the University of Technology Sydney

1 November 2018 | 218424



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 B Conservation Management Plan Paul Davies Pty Ltd
 C Secretary's Environmental Assessment Requirements (SEARs) Department of Planning and Environment
 D Landscape Concept Report Arcadia Landscape Architecture
 E Communication and Consultation Report KJA
- **F** State Design Review Panel Session 1 & Session 2 Response to Advice and Recommendations *Ethos Urban*
- **G** Bon Marche / CB04 Development Sustainability Brief UTS
- H Traffic and Transport Assessment TTPP
- I Contaminated Land Management Report Canopy Enterprises
- J Design Excellence Competition Strategy Ethos Urban
- **K** Environmental Wind Assessment *Arup*
- L Visual Impact Assessment Architectus
- M Heritage Design and Impact Statement Paul Davies Pty Ltd
- N Archaeological Assessment GML Heritage
- O Preliminary Stormwater Management Concept Plan Arup
- P Preliminary Infrastructure Assessment Arup

Executive Summary

This Environmental Assessment Report (EAR) has been prepared by Ethos Urban on behalf of the University of Technology Sydney (UTS) in support of an application to modify Concept Plan Approval MP 08_0116 under the former Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act). In particular, it relates to the proposed redevelopment of Bon Marche and Science Precinct that lies within the UTS Broadway Campus.

Initial Concept Plan Approval was granted by the Department of Planning and Environment (DP&E) under the former Part 3A of the EP&A Act in 2008 to guide the future development of the UTS Broadway Campus. It allowed UTS to make a \$1 billion-plus investment to fundamentally change the way teaching, learning and research is delivered at the university. It granted approval to provide 84,750m² of gross floor area (GFA) in addition to the existing GFA (estimated at approximately 150,000m²) at the Broadway Campus at the time. It further provided envelopes in which future buildings could be developed under separate planning approval.

Since the initial approval, UTS has experienced significant growth in student enrolments that exceeded projections concurrent with growth experienced by the wider tertiary education sector. The Concept Approval has been modified on five (5) occasions prior to this application, including most recently to allow for the redevelopment of the UTS Central building (Building 2). Notwithstanding the additional GFA provided by these modifications to date, UTS continues to see unprecedented demand for teaching and research space, to the point where the university is expected to experience a space crisis.

This application is therefore submitted to facilitate the redevelopment of (principally) Building 4 and Building 3 to accommodate additional floor space and enable the redevelopment of existing buildings to meet contemporary teaching and research needs. The Concept Plan Approval as modified does not provide for any additional development in this part of the Broadway Campus and therefore necessitates an amendment to unlock this important development opportunity.

The DP&E has advised that modifications to projects approved under the former Part 3A of the EP&A Act are currently only permitted if an application is received within 6 months of the issue of the Secretary's Environmental Assessment Requirements (SEARs) if SEARs were granted for a project by 1 March 2018. As SEARs were granted for this application on 1 February 2018, this application can continue to be assessed under the former Section 75W of the EP&A Act and will therefore represent the final modification to the Concept Plan Approval that can be granted under this planning pathway.

This application is therefore for a building envelope only to provide additional floor space for UTS. If approved, a future State significant development application/s will be required to gain consent for any significant development on the site. Such an application/s will be subject to a competitive design process that builds on the Concept Plan drawings prepared by BVN Architecture at **Appendix A** and are informed by the site-specific urban design principles.

Summary of Proposed Changes

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

- Conceptual demolition of existing Building 4, and rear section of Building 3,
- Conceptual modification to heritage items, Building 3, Building 9, and Building 18;
- Creation of a new building envelope for Building 4, Building 3 (part) and Building 9 (cantilevering over only), resulting in a maximum height of RL 86.55, an increase of approximately 45m above existing Building 4 and approximately 50m above existing Building 3;
- Corresponding increase in GFA for Building 4 and Building 3, comprising an additional increase of up to 36,500m² (with a limit of 26,500m² additional GFA above ground);
- Consequential amendments to the Urban Design Quality Controls/Principles to guide the future development of the Bon Marche and Science Precinct; and
- Indicative landscape and public domain concept for the precinct.

An indicative model of the proposed envelope is shown in Figure 1 below.

Rationale for the Proposal

The proposed modifications to the Concept Plan approval intend to achieve the following:

- Provide additional teaching and research space to keep pace with strong demand in the tertiary education sector;
- Provide significant additional open space for use by university students and faculty through the provision of a sky garden above a future building podium;
- Increase the amenity along Harris Street and provide new pedestrian connections through to Alumni Green;
- · Provide continued conservation of significant aspects of heritage assets on site;
- Significantly contribute to the State government's vision to create an 'Innovation Corridor' for the Harbour CBD;
- Maintain solar access to Alumni Green and nearby residential areas;
- · Provide a framework for a competitive design process for a future development; and
- Utilise a development approval pathway currently available under Section 75W of the EP&A Act, as if it were to lapse would have significant time and cost implications to the realisation of the project.

Conclusion

This application is in accordance with all relevant strategic planning documents. All environmental impacts of a future building that utilises the full extent of the envelope proposed under this application have been assessed and are capable of being appropriately mitigated. Given the importance of this project not only to UTS but also for strategic planning outcomes for Sydney, we have no hesitation in recommending that the application be approved by the DP&E.



Figure 1 Physical model of proposed envelope, looking north Source: BVN

1.0 Introduction

This EAR for modifications to the approved Concept Plan for the Broadway Precinct of the UTS City Campus is submitted to the Minister for Planning in accordance with Section 75W and Clause 3C of Schedule 6 of the EP&A Act.

The UTS City Campus Broadway Precinct Concept Plan (BPCP) was approved by the 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.

The approval has been modified as noted further below, including significant amendments involving Building 2 (Modification 5).

This report has been prepared by Ethos Urban on behalf of the UTS (the proponent). The reports 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 Concept Plan Design Report and Drawings (refer to **Appendix A**) prepared by BVN and supporting technical documents provided by the expert consultant team (refer to table of contents).

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

- Conceptual demolition of existing Building 4, and rear section of Building 3,
- Conceptual modification to heritage items, Building 3, Building 9, and Building 18;
- Creation of a new building envelope for Building 4, Building 3 (part) and Building 9 (cantilevering over only), resulting in a maximum height of RL 86.55, an increase of approximately 45m above existing Building 4 and approximately 50m above existing Building 3;
- Corresponding increase in GFA for Building 4 and Building 3, comprising an additional increase of up to 36,500m² (with a limit of 26,500m² additional GFA above ground);
- Consequential amendments to the Urban Design Quality Controls/Principles to guide the future development of the Bon Marche and Science Precinct; and
- Indicative landscape and public domain concept for the precinct.

The proposed new envelope for the Bon Marche and Science Precinct will accommodate a future building that will have an effective maximum height of 16/17 storeys above Harris Street and six (6) storeys above Thomas Street (i.e. excluding basement levels and plant). The resulting GFA for the Bon Marche and Science Precinct (new building envelope and retained existing buildings) will (depending on the extent of car parking) be in the order of 65,000m².

2.0 Background

2.1 The Site

The Broadway Precinct of the UTS City Campus is located on the southern edge of the Sydney Central Business District (CBD). The UTS City Campus is located entirely within the Sydney Local Government Area. The Campus has frontages to Broadway, Thomas, Wattle and Harris Streets. One building (CB06) is located on the other (eastern) side of Harris Street from the main campus.

The site has a direct connection to the Goods Line and is approximately 250 metres from Central Railway Station. Jones Street runs through the Precinct. The area covered by the Concept Plan (MP 08_0116) is shown in red in **Figure 2**.

The site is legally described as Lot 2012 DP 1183894. The entire site is within the ownership of UTS. The UTS City Campus Broadway Precinct (as shown in red in **Figure 2**) is 42,007m² in site area.



Figure 2 Site Context

More specifically, the Bon Marche and Science Precinct is located within the eastern part of the Broadway campus between Thomas Street and Broadway with frontage to Harris Street (shown in blue in **Figure 2**). It incorporates Buildings 3, 4, 9 and 18. Buildings 3, 9 and 18 are identified as heritage items under the Sydney Local Environmental Plan 2012 (SLEP 2012). It is approximately 8,050m² in site area. Refer to **Figure 3** and **Figure 4** for the location of the Bon Marche and Science Precinct.



The Site

() NOT TO SCALE

Figure 3 – Aerial image of Bon Marche and Science Precinct – May 2018 Source: NearMap



Figure 4 – 3D perspective of the existing Bon Marche and Science Precinct *Source: BVN*

2.2 Existing and Surrounding Development

The buildings, which comprise of tertiary education facilities and ancillary uses, at the UTS Broadway Precinct include the following:

- **Building 1 (CB01)**: opened in 1979 and also known as the UTS Tower, this Brutalist landmark on Broadway is where the university's administrative units are located. It has a maximum height of RL 132.
- **Building 2 (CB02)**: currently under construction on Broadway as part of the UTS Central project, this building will become a new student, faculty and research hub when it is completed. It has a maximum height of RL 80.
- Building 3 (CB03): also known as Bon Marche, it accommodates various facilities for the Faculty of Arts and Social Sciences. It is a locally listed heritage item. Refer to Section 2.3.1.
- **Building 4 (CB04)**: developed in the 1950s, Building 4 is the original Faculty of Science building along Harris and Thomas streets.
- **Building 6 (CB06)**: also known as the Peter Johnson Building, it accommodates the Faculty of Design, Architecture and Building and fronts Harris Street next to the Australian Broadcasting Corporation (ABC).
- Building 7 (CB07): also known as the Vicki Sara Building, it accommodates the Faculty of Science and Graduate School of Health.
- **Building 9 (CB09)**: also known as The Loft and former Apothecary building, this building accommodates a small hospitality venue for the campus.
- **Building 10 (CB10)**: previously known as the old Fairfax Building, it accommodates the Faculty of Health and Faculty of Arts and Social Sciences.
- Building 11 (CB11): completed in 2014, this new building fronting Broadway accommodates the Faculty of Engineering and IT. It has a maximum height of RL 62.
- Building 18 (CB18): the three heritage terraces fronting Broadway, these buildings accommodate a range of retail outlet at ground level and the university's radio station 2SER. Refer to Section 2.3.2.

In addition to the above buildings, there is a 7,000m² area of central open space known as Alumni Green. Specifically, this modification application relates primarily to Building 3 and Building 4, whilst also having broader interface and connectivity with Building 9 and 18 as discussed throughout this report.

Located in a dense urban context, the following development surrounds the UTS Broadway Precinct:

- To the north: TAFE NSW (Ultimo College) and the broader mixed-use area of Ultimo-Pyrmont.
- To the south: Across Broadway is the Frasers development known as Central Park which contains residential apartments, commercial spaces, student accommodation and open space. One Central Park has a maximum height of RL 132. Further to the south is the suburb of Chippendale.
- To the east: Across Harris Street is the ABC's Sydney studios and the former Ultimo Pedestrian Network, now known as the Goods Line.
- **To the west:** Mixed-use development runs along the length of Broadway to the west before reaching Victoria Park and Sydney University.

2.3 Heritage Significance of the Site

The Bon Marche building and adjacent terraces are listed as heritage items under the *Sydney Local Environmental Plan 2012* (Sydney LEP 2012) as detailed below in **Table 1**. Neither of these items are listed on the NSW State Heritage Register.

Suburb	Item Name	Otherwise known as	Address	Property Description	Significance	Item No.
Ultimo	Commercial building including interior	Terraces and former Apothecary	9-13 Broadway	Lot 1, DP 1079855	Local	12004
Ultimo	Commercial building (1-7 Broadway) including interior	Bon Marche Building	15-73 Broadway	Lot 2004, DP 1053548	Local	12005

Table 1 Details of Heritage Listings on Site

Further to the above, several additional heritage items are located within proximity to the site. All four corners of the intersection of Harris Street and Broadway are locally listed heritage buildings, including the Agincourt Hotel, Sutherlands Hotel and Former Bank of NSW Building.

A Conservation Management Plan (CMP) has been prepared by Paul Davies Pty Ltd (refer to **Appendix B**). The CMP has assessed and graded each of the heritage items on site with regard to the extent of heritage significance. Further description of these items is included below.

2.3.1 Bon Marche Building

The Bon Marche Building was constructed in 1909 as a retail department store for the Marcus Clark retailing chain to a design by architects McCredie & Anderson. A 1928 addition was made to the rear of the building in Harris Street. The name *Bon Marche* derives from the *Le Bon Marche* store concept in Paris, with the French store introducing the design paradigm of departments stores with voluminous, continuous interior spaces with upper floors and galleries.

The exterior of the building has been altered over time, however, continues to retain the original form, window openings, some decorative features and the hipped roof from the original design (refer to **Figure 5**). The interior of the building has been significantly modified over time, resulting in the loss of all visible original detail and structure and the insertion of new elements including stairs, lifts, services, changes in floor levels and new concrete structural elements.

Areas of high significance include:

- overall form in relation to street presentation;
- 1909 facades to Broadway and Harris Street (with the exception of windows, shopfronts and awnings);
- 1928 facades to Harris Street (with the exemption of windows, shopfronts and awnings)¹; and
- façade features including parapet, pilasters, cupola and window openings where they remain as designed.



Figure 5 Bon Marche Building as viewed from Broadway

¹ Note: This element has only been assessed as having high/moderate significance.

2.3.2 Terraces and Former Apothecary

The three retail terraces fronting Broadway were constructed in 1887 to a design by architects Wardell & Vernon. The Central Terrace (formerly No.11) was originally designed as a bank. The former Apothecary Building at the rear of the terraces was built in 1887 at the same time as the retail terraces, and originally appears to have operated in conjunction with the chemists which were the original occupants of No. 9 Broadway (the eastern-most of the three terraces).

The exteriors of the terraces are largely intact, except for ground floor shopfronts, awnings, southern entry door at No. 11 and the installation of air conditioning condenser units to various window openings (refer to **Figure 6**). The interiors of the terraces are also relatively intact. New interior fitouts have generally been undertaken in a reversible manner, with original detail such as decorative ceilings, skirting boards and fireplaces remaining. Amenities such as toilets have been upgraded over time including for disabled access. The interior of the former Apothecary Building has been stripped out and refitted for restaurant and venue use.

Areas of high significance include:

- facades generally (excepting shopfronts to the former Nos. 9 and 13 and awnings);
- interior generally (retains high level of original fabric);
- exterior of the former Apothecary Building including overall form, exterior brick walls, roof form, window and door openings; and
- timber roof structure and timber board roof lining of the former Apothecary Building.



Figure 6 Rear view of terraces from Tower 1

2.4 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 (not as modified) are illustrated in Figure 7.



Figure 7 3D model of original approved concept plan

Source: BVN, DCM and Ethos Urban (in their former capacity as JBA)

The Concept Plan did not set new maximum heights and GFA for the Bon Marche and Science Precinct as demand for growth or redevelopment of these buildings was not identified at the time, nor was there any budget allocated to these buildings. The Concept Plan (2009) was informed by UTS's Growth Plan at the time to 2020, which had not foreseen that additional floor area and significant modifications and upgrades to existing buildings was required in the Bon Marche and Science Precinct. The 2009 Concept Plan also did not take into account the lifecycle status of Building 4, which was recently investigated and reported to be nearing end of life in 2026.

2.5 Concept Plan Modifications

Since the Concept Plan was approved, five (5) 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).

Modification No 5

Modification No 5 (MP 08_0116 Mod 5), approved on 17 March 2016, sought to modify the Concept Approval for the design and Construction of Building 2 (UTS Central). It included an increase in the approved additional GFA for Building 2 to 38,261m², comprising an increase of 31,511m². This included an 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. Consequential amendments to the Urban Design Quality Controls/Principles for Building 2 and Statement of Commitments were also approved.

2.6 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 8), designed by Denton Corker Marshall Architects.
- Multi-Purpose Sports Hall (Figure 9), designed by PTW Architects.
- Alumni Green (Figure 10), designed by ASPECT Studios Landscape Architects.
- Faculty of Science and Graduate School of Health Building (Figure 11), designed by Durbach Block Jaggers in association with BVN Architecture.

- Library Retrieval System, designed by Hassell Architects.
- Great Hall and Balcony Room Upgrade, Designed by DRAW Architects in association with Kann Finch Architects.



Figure 8 Faculty of Engineering and IT Building



Figure 9 Multi Purpose Sports Hall



Figure 10 Alumni Green



Figure 11 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 2 and Building 1 Podium Extension project, with Lacoste + Stevenson in association with Darryl Jackson Robin Dyke Architects (Lacoste + Stevenson) awarded the design commission (refer to **Figure 12**). State Significant Development Application SSD 7382 was approved by the DP&E in September 2016. Stage 1 of the building is anticipated to be completed by 2019.



Figure 12 Lacoste + Stevenson winning design competition entry for Building 2 and Building 1 podium

2.7 Secretary's Requirements

In accordance with Section 75F of the EP&A Act, the Secretary of the DP&E issued the requirements for the preparation of the Environmental Assessment Report. **Table 2** provides a detailed summary of the individual matters listed in the SEARs and identifies where each of these requirements has been addressed in this report and the accompanying technical studies.

Table 2 SEARs requirements

Re	quirement	Location in Environmental Assessment			
Ge	neral Requirements – The Modification Request must include:				
1.	An executive summary which includes a summary of the proposed changes, a rationale for the proposal and a conclusion based on the findings of the assessment	Executive Summary			
2.	A site analysis including site plans, aerial photographs and a description of the existing and surrounding environment	Section 2.1 Section 2.2			
3.	A background section covering the approval history for the site	Section 2.4 Section 2.5			
4.	A thorough description and numerical table of the proposed modifications compared with the approved concept plan	Section 3 Section 6.3			
5.	An assessment of the key issues (specified below) and a table outlining how those key issues have been addressed. This is to include a detailed assessment of the potential impacts of the proposal, particularly any additional impacts associated with the modification beyond those already assessed and approved.	Section 6			
6.	A description outlining how the potential impacts associated with the modification would be mitigated and managed including any new or amended statement of commitments	Section 6			
7.	The plans and documents (outlined below) clearly showing the proposed changes compared with the approved concept plan	Refer to Appendices in the Table of Contents			
8.	A conclusion justifying the modified concept plan taking into consideration the environmental impacts of the proposal, the suitability of the site and whether it is in the public interest	Conclusion			
Ke	/ Issues – The modification Request must address the following specific matters:				
	Relevant Environmental Planning Instruments (EPIs) EA is to address the statutory provisions applying to the site and all relevant strategic nning objectives outlined in the documents at Attachment A .	Section 5 Section 6.1			
2.	Comparison with the Concept Approval (MP 06_0116)				
	Demonstrate how the proposed modification can be assessed and determined within the scope of section 75W of the <i>Environmental Planning and Assessment Act 1979</i> , and particularly address any environmental impacts beyond those already assessed for the Concept Approval				

Requireme	nt	Location in Environmental Assessment
against t	a comparative assessment (qualitative and quantitative) of the proposed modification ne Concept Plan, a rationale for the proposed amendments and comparison plans entifying the proposed changes.	Section 6.2
	ustification for the proposed changes with consideration of previous justifications in relation to student projections.	Section 6.2.4
	consideration of feasible alternatives in relation to the proposed changes, including the ences of not carrying out the proposed modified development.	Section 6.2.5
. Built F	orm and Urban Design	I
	a detailed site and context analysis, including a building envelope study, to justify the I site planning, built form and design approach.	Appendix A
	a Design Excellence Competition Strategy for the future stage(s) of the development monstrates how design excellence will be achieved.	Appendix J
	lans and building envelopes of the concept plan detailing height, density, bulk and tback in relation to the surrounding development and streetscape.	Appendix A
	an indicative building and landscape design showing a possible built form within the I building envelope/s	Appendix A Appendix D
Universit	ppropriate design guidelines and development parameters within the context of the y campus and the locality, including but not limited to: n excellence;	Section 3.5.2 Appendix A
herita	yout, with consideration to preserving significant historic view corridors and the ge curtilage of the heritage items;	
Ũ	floor area;	
	ng footprints; : and massing of the building envelopes;	
 neight site a 		
	caping, open spaces and tree planting; and	
	ng materials, colours and finishes.	
	Domain / Open Space	
	changes to public domain improvements, pedestrian linkages, street activation and	Section 3.5 Section 6.4
Demons	rate the public domain and open spaces will:	Section 6.4
- maxir	nise permeability and street activation throughout the development;	
	e sufficient open space for the expected population;	
- ensur	e access for people with disabilities; and	
– minim	ise potential for vehicle, bicycle and	
. Enviro	nmental Amenity	Section 6.5
rovide info	rmation detailing the provision of solar access and any overshadowing impacts, pacts, view loss and wind impacts. A high level of environmental amenity must be	
6. Heritag	le	
significar	statement of significance and an assessment of the impact on the heritage ice of any heritage items and/or conservation areas and/or potentially archaeologically at areas in accordance with the guidelines in the NSW Heritage Manual.	Section 6.6 Appendix B
	a revised Conservation Management Plan that incorporates the proposed	Appendix B

Requirement	Location in Environmental Assessment
• modelling of the traffic impacts associated with the proposed modifications to the concept plan, including an estimate of the total daily and peak hour vehicle trips generated by the proposal	Section 6.7
 an assessment of the current and future performance of key intersections providing access to the site under the approved and proposed scenarios, and identify any additional upgrades required as a consequence of the proposal 	Section 6.7
an assessment of the impacts of all modifications to the approved road network and infrastructure, and use of the Austroads Guidelines to identify appropriate mitigation measures.	Section 6.7
 detailed plans of the proposed layout of the internal road network and on-site parking in accordance with the relevant Australian Standards 	Section 6.7
an assessment of traffic and transport impacts during construction and demonstration of mitigation of impacts	Section 6.7
an assessment of the adequacy of public transport services to meet the likely future demand of the proposed development	Section 6.7
 8. Contributions and/or Voluntary Planning Agreement Address the provision of public benefits, services and infrastructure having regard to Council's Contribution Plan, and/or provide details of any new/amended Voluntary Planning Agreement. Flooding and Drainage 	Section 6.8
 Provide a stormwater report which identifies the impacts, if any, of the proposed modification and how water quality and quantity impacts on the drainage system would be managed. 	Section 6.9
Assess any flood risk on the site including consideration of any relevant provisions of the NSW Floodplain Development Manual (2005).	Section 6.9
 9. Statement of Commitments Include any new or modified Statement of Commitments detailing measures for environmental management, mitigation measures and monitoring for the project. Consultation 	Section 3.6.1
 During the preparation of the EA, you are required to consult with the relevant local, State or Commonwealth authorities, service providers, including: City of Sydney Council; and Government Architect NSW The modification request must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to those issues. Where amendments have not been made to address an issue, a short explanation should be provided. 	Section 4
Plans and Documents The modification request must include all relevant plans and relevant documentation, including:	

• site analysis plan;	Appendix A
• site survey plan, showing existing levels, location and height of surrounding site features;	Appendix A
locality / context plan;	Section 2.1
 drawings including building envelope plans, elevations and photomontages clearly showing the proposed amendments compared with the concept approval. The plans are to include a maximum RL and dimensions; 	Appendix A
shadow diagrams; and	Appendix A
• public domain plans, including a landscape master plan.	Appendix D

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:

- Conceptual demolition of existing Building 4, and rear section of Building 3,
- Conceptual modification to heritage items, Building 3, Building 9, and Building 18;
- Creation of a new building envelope for Building 4, Building 3 (part) and Building 9 (cantilevering over only), resulting in a maximum height of RL 86.55, an increase of approximately 45m above existing Building 4 and approximately 50m above existing Building 3;
- Corresponding increase in GFA for Building 4 and Building 3, comprising an additional increase of up to 36,500m²;
- Consequential amendments to the Urban Design Quality Controls/Principles to guide the future development of the Bon Marche and Science Precinct; and
- Indicative landscape and public domain concept for the precinct.

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

3.1 Conceptual Demolition of Building 4 and Partial Demolition of Building 3

The proposal as envisaged under the modification to the Concept Plan will require the complete demolition of Building 4 along Harris Street and Thomas Street. The internal areas and rear of the 1928 addition of Building 3 (i.e. Bon Marche Building) are also proposed to be demolished. The proposed demolition does not include any elements of Bon Marche Building constructed in 1909 (with the exception of possible parts of the external walls at street level and internal courtyard to facilitate improved pedestrian connections and possibly some internal walls to facilitate spaces satisfactory for educational uses), nor does it include the façade of the 1928 extension.

3.2 Conceptual Modification to Heritage Items

As identified in **Section 2.3**, Buildings 3, 9 and 18 are identified as local heritage items. Careful consideration has been made with respect to the Conservation Management Plan (**Appendix B**) to propose the following conceptual modifications to each of the respective buildings:

- Building 3 (Bon Marche): The façade of the original building and addition is proposed to be retained (as above, with the exception of possible parts of the external walls at street level and internal courtyard and possibly some internal walls). However, at street level, a more porous façade is proposed to alleviate pedestrian congestion. A major new entry to the campus is proposed at the original southernmost section of Bon Marche. The interiors of Bon Marche, identified as being of limited heritage significance, are proposed to be demolished as identified in Section 3.1 above.
- **Building 9 (Loft and Former Apothecary):** The Loft is proposed to be retained, however, the extension to Building 3 is proposed to cantilever over this space. A refurbishment to the Loft is proposed.
- Building 18 (Terraces): The Terraces are proposed to be retained and undergo a refurbishment. The rear of the Terraces are proposed to be amended to allow for pedestrian circulation through the Campus as the result of the new proposed pedestrian access point at Bon Marche.

3.3 Creation of a New Building Envelope for Building 4 and Building 3 (Part)

Approval is sought for the creation of a new building envelope for Building 4 and Building 3 (part). Much of the building form (including basement levels and up) also occupies part of the existing Building 3 from the commencement of the 1928 extension northward, excluding the façade as indicated above and then cantilevers over a portion of the retained original Building 3. It primarily consists of a podium that runs the length of Harris Street and connects to Building 7 up Thomas Street. A longitudinal form sits above the podium along the length of Harris Street only.

The height and form of the additional storeys has been determined by BVN Architecture following a detailed contextual urban design and amenity study and following an understanding of UTS's brief and requirements. This includes a large floorplate for the tower element 36m in width to be suitable for its proposed use as a teaching and research building.

Further justification for the form of the building envelope is provided in **Section 6.3.2**. Refer to **Figure 13** and **Figure 14** below for the extent of the building envelope. The envelope includes areas below ground (basements) to accommodate potential car parking and/or teaching space. The envelope has also been designed and sized as a 'loose fit' to enable suitable flexibility and creativity during the detailed design phase (including competitive design process). A range of design principles and guidelines have been developed to provide the framework within which to design the building within the envelope.

3.3.1 Maximum Height

The maximum height of Building 4 is proposed to increase from RL 41.22 to RL 86.55 (an increase of around 45m), with Building 3 (part) proposed to increase from RL 36 to RL 86.55 (an increase of around 50m). A podium level is proposed to generally match the height of the existing Building 3 parapet at RL 35.5, which meets the height of Level 5 of Building 7. The proposed envelope includes an opportunity for future plant above Thomas Street podium immediately adjoining the existing Building 7 plant with a consistent maximum height of RL 43 proposed fronting Thomas Street.

This proposed building can accommodate up to six (6) levels in the podium (excluding basement parking/teaching), a 'sky garden' above the podium at Level 8 and an additional approximately nine (9) levels above the podium excluding a dedicated plant level. This results in a proposed 16/17 storey building with an additional plant level.

3.3.2 Setbacks

The setbacks of the proposed building envelope to surrounding streets are captured in **Table 3** below. In addition to this, the extent that the tower will cantilever over the Bon Marche (original) building is 8m.

Broadway		Harris Street	Thomas Street	
Podium Setback	40m	0m	0m	
Tower Setback	32m	Om	32m	

Table 3 Setbacks of proposed envelope to surrounding streets

It should be noted that the above setbacks relate to minimum requirements should the envelope be maximised at any point. The proposal provides the space for articulation and modulation within the building envelope. Accordingly further setbacks within the approved envelope will be a consideration under Design Principles 4 and 5. The Design Principles allow for flexibility in a design response to be developed as part of the competitive design process rather than set a particular setback from Harris Street at this stage for instance. A further measure to be employed to ensure certainty around the adherence to the design principles is to set an above ground maximum additional GFA of 26,500m².



Figure 13 Proposed envelope looking north west
Source: BVN



 Figure 14
 Proposed envelope looking south west

 Source: BVN

3.3.3 Indicative Building Design

Illustrative design material, showing indicative design concepts has been prepared by BVN. This material is included as part of the Design Report (refer to **Appendix A**), but does not form part of the modification application approval. It is provided for information purposes only to assist the consent authority in its assessment of the proposal.

The illustrative design plans show one option of how a future education building could be programmed within the proposed building envelope to support the vision for Bon Marche and Science Precinct. A range of other potential indicative design outcomes have also been modelled and included for information purposes within the Design Report.

3.3.4 Access and Parking

Vehicular Access and Parking

Access for cars and service vehicles for the future development is to continue to be provided from the driveway on Thomas Street. Provision for a possible two levels of basement carparking (accommodating approximately 150 parking spaces) has been made within the Concept Plan drawings at **Appendix A** on Level B1 and B2 Mezzanine. The existing service entry at Turner Lane (off Harris Street) would be discontinued and consolidated with the Thomas Street entry (refer to **Section 6.1.1**) as part of the new development. Turner Lane is proposed to be integrated into the new building.

Provision will be made to provide a new access point at the Thomas Street entry to allow clear separate entries for cars and service vehicles. A portion of the basement loading dock will be reconfigured, whereby eight small loading bays would be converted to four larger bays to accommodate existing loading activities from Building 2 which is currently under construction and Turner Lane as well as loading activity from the development site.

Formal set-down/pick up parking restrictions are proposed in Thomas Street to address existing issues relating to drivers stopping on the carriageway to drop-off passengers to UTS.

Pedestrian Access

Provision for multiple new access points to Building 4 are made in the Concept Plan drawings (**Appendix A**). This includes direct new access to Alumni Green at the south-eastern corner of the courtyard. Between this access point and Broadway, the ground floor of the buildings are proposed include a pedestrian circulation zone with porous façade to alleviate pedestrian congestion at the corner of Broadway and Harris Street.

Connections to the wider campus are also proposed including retention of the existing pedestrian bridge over Harris Street connecting to the new building envelope, and providing connections from the proposed podium roof level (sky garden) to the existing function space (podium level) and via stairs/lift to roof garden of Building 7 (level below) and the future landscaped roof level of the proposed Building 1 podium extension either via a stair or ramp at roof level or via a direct bridge connection from within the podium extension (floor level below). Refer to **Figure 15** below for a graphic representation of this pedestrian connectivity across the wider campus.



Figure 15 Pedestrian connectivity through the UTS campus with proposed building envelope Source: BVN

As demonstrated by the proposed modifications to the Statement of Commitments (**Section 3.5.1**), UTS will consult with RMS, Transport for NSW and City of Sydney Council in relation to the potential closure of a lane on Harris Street to improve pedestrian amenity in the precinct including safety at the corner of Broadway and Harris Street.

3.3.5 Indicative Staging

In order to meet the feasible requirements of UTS in the delivery of the future building, the project is proposed to be delivered in a minimum of two (2), possibly three (3) stages which could potentially be along the following lines:

- Stage 1: Tower (northern half) and podium elements integrated with and above the Bon Marche building;
- Stage 2: Remainder of the tower (southern half) and podium element along Harris Street; and
- Stage 3: New Thomas Street building incorporating corner of Thomas and Harris Streets.





3.4 Corresponding Increase in the Approved GFA

The provision of additional floor space within the proposed new building envelope will facilitate the delivery of much needed additional education floor space. An additional maximum of 36,500m² of GFA is sought specifically under this application as explained further below (excluding a proposed reconciliation of additional GFA approved under a local development consent).

GFA under the UTS Broadway Site Concept Plan approval is calculated under the provisions of the *Sydney Local Environmental Plan 2005* (due to its initial 2008 approval). Prior to the approval of the Concept Plan, the UTS Broadway site comprised approximately 153,825m² of GFA for education uses accommodated in nine buildings. GFA approved under the original Concept Plan, additional GFA approved as modifications to the Concept Plan and as proposed in this modification for the UTS Broadway Precinct are shown in **Table 4** below.

Building	Existing GFA		Additional GFA Under Co		r Concept Plan	
	(2008)	MP 08_0116 ²	Mod 3 ³	Mod 5 ⁴	Proposed GFA under Mod 6	Proposed GFA
Building 1	49,639m ²	4,050m ²	4,050m ²	4,050m ²	4,050m ²	53,869m ²
Building 2	22,096m ²	6,750m ²	6,750m ²	38,261m ² (+31,511m ²)	38,261m ²	60,357m ²
Building 3	7,060m ²	-	-	-	36,500m ²	67,646m ^{2^}
Building 4	28,286m ^{2*}	-	-	-	(+36,500m ²)	
Building 9	205m ²	-	-	-	-	-
Building 18	1,052m ²	-	-	-	-	
Building 6	15,872m ²	25,250m ²	25,250m ²	25,250m ²	25,250m ²	41,122m ²
Building 10	32,229m ²	-	-	-	-	32,229m2
Broadway Building	0m ²	34,650m ²	32,500m ² (-2,150m ²)	32,500m ²	32,500m ²	32,500m ²
Thomas Street Building	0m ²	10,000m ²	12,150m ² (+2,150m ²)	12,150m ²	12,150m ²	12,150m ²
Multi-Purpose Sports Hall	0m ²	1,800m ²	1,733m² (-67m²)	1,733m ²	1,733m ²	1,733m ²
LRS and Storage Building	0m ²	2,250m ²	4,719m ² (+2,469m ²)	4,719m ²	4,719m ²	4,719m ²
Total	156,439m ²	84,750m ²	87,152m ² (+2,402m ²)	118,663m ² (+31,511m ²)	155,163m ² (+36,500m ²)	311,602m ²

Table 4 Additional GFA for UTS Broadway under the Concept Approval as approved and proposed to be modified (Calculated under SLEP 2005)

*Of note, Development Application D/2017/1591 was approved by the City of Sydney independent of the Concept Plan approval to infill parts of Building 4, resulting in an increase in GFA of 2,614m². This modification application seeks to increase the GFA of Building 3 and 4 by 36,500m², which in addition to the Building 4 infill already approved results in a total increase in the GFA under the Concept Plan (as proposed under Mod 6) of 39,114m².

^ Assumed existing GFA across Buildings 3, 4, 9 and 18 for the purposes of this application is 31,146m², which includes 2,614m² of GFA approved as part of the Building 4 infill.

From the original approval, subsequent modifications (including the proposed Mod 6) have sought an additional 70,413m² GFA. The overall GFA for the Bon Marche and Science Precinct (existing retained and proposed) is in the order of 65,000m².

Notwithstanding GFA approved under the Concept Plan, not all buildings that have been approved to date have utilised all this floor space. An analysis of approved and utilised GFA reveals a surplus of approximately 17,000m².

An overview of the key floor area metrics for the UTS Broadway Precinct (excluding Building 6) is captured below.

Table 5	Key floor area metrics for the UTS Broadway Precinct (excluding Building 6)
Table 5	Rey noor area metrics for the ors broadway Frechict (excluding building o)

	Mod 5 as approved (excluding approved Building 4 extension)	Mod 6 (excluding reconciliation of Building 4 extension)	Mod 6 (including reconciliation of Building 4 extension approved by Council)		
Site Area	36,989m ²				
GFA	231,366m ²	268,064m ² (15.8%)	270,480m ² (16.9%)		
FSR	6.25:1	7.24:1	7.31:1		

² Source: Development Consent MP 08_0116

³ Source: Environmental Assessment Report for Modification 3; UTS Concept Plan MP 08_0116 (BVN, 2009)

⁴ Source: Development Consent MP 08_0116 Mod 5

FSR minus	5.80:1	6.78:1	6.85:1
unutilised			
GFA			

3.5 Indicative Landscape and Public Domain Improvements

A Landscape Concept Report has been prepared by Arcadia Landscape Architecture and is included at **Appendix D**. The purpose of this report is to provide an overview of indicative landscape and public domain improvements that can be pursued in a future development application to be informed by a competitive design process.

Proposed landscape and public domain improvements for the project are associated with an identified need to provide additional open space for the students and staff of the university. The limited availability of open space is due to the dense urban context in which the university is located. Opportunities presented within the proposed modifications to the Concept Plan to provide additional high-quality open space include:

- Ground Level: along Harris Street and Thomas Street and throughout the pedestrian circulation areas of the future development; and
- Sky Garden: large opportunities for accessible public space located on the podium of a future building.

These indicative design improvements are explained in further detail below.

Ground Level

Arcadia Landscape Architecture has identified options at ground level including:

- the introduction of new street trees and respite areas along Harris Street;
- possible seating and planting arrangements in internal courtyards;
- green wall opportunities in internal courtyards and fronting Alumni Green; and
- new access points between Harris Street and Alumni Green.

Sky Garden

A Sky Garden has been considered within the Concept Plan drawings at **Appendix A** to provide a significant quantum of open space above the podium as part of the proposed redevelopment. This opportunity has been explored further by Arcadia Landscape Architecture, who have provided the following indicative design for the Sky Garden (refer to **Figure 17**) which includes:

- study/social pods at various locations throughout the podium level;
- pollinator planting of native species to attract native bees;
- viewing areas to Alumni Green at the eastern and north-eastern edges of the courtyard;
- three larger congregation spaces spread evenly throughout the podium;
- science/community gardens;
- · opportunities for internal pavilions, wellness centre and café; and
- a meandering pathway throughout the full extent of the garden.



Figure 17 Indicative Landscape Plan for Sky Garden

Source: Arcadia Landscape Architecture

3.6 Amendments to Urban Design Quality Controls and Principles

3.6.1 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**.

Design Excellence

The proponent will adopt the design excellence **process** strategy at **Section 3.9** Appendix J of the EAR for **Section 75W Modification Application (Mod 6)** and incorporate the design quality controls at Section **3.10** 3.5.3 of the EAR for **Section 75W Modification Application (Mod 6)** 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 for the proposed Building 4 (in addition to the part of Building 3 included in the new envelope) is to be the result of a competitive design process/es in accordance with Appendix J of the EAR for Section 75W Modification Application (Mod 6). The design of the new building is to address the seven design principles outlined in the BVN Architecture Design Report dated November 2018 and incorporate the design quality controls at Section 3.6 of the Environmental Assessment Report for the Section 75W Modification (Mod 6).

Heritage

To minimise impacts on the heritage significance of buildings on and around the site, the proponent will implement the following measures:

- 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.
- Limit the built form of the proposed Broadway Building to maintain distant views of the Building 10 radio tower from the south and west.
- Ensure that demolition of Building 11 (the Bradshaw Building) is contingent on the architectural design of the Broadway Building achieving design excellence.
- 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.
- Ensure that development of Building 4 (in addition to part of the Building 3 site that is included in the new envelope) addresses the recommendations of the Heritage Design + Impact Statement and Conservation Management Plan prepared for Building 3 (the 'Bon Marche' Building) and Building 18 ('Three Terraces and Former Apothecary').

Traffic, Transport and Access

To facilitate cycling and the use of public transport, the proponent will undertake the following:

- 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; and
- Provide facilities for cyclists. Prepare and submit a Bicycle Strategy as part of a detailed Development Application for a future building within this precinct to provide adequate facilities for cyclists.

To manage any impacts on traffic and pedestrian movements during construction, the proponent will require the preparation of Construction Traffic Management Plans for every development on the site.

UTS will consult with Sydney Metro during detailed design of the Broadway Building in relation to any potential impacts on the West Metro tunnel alignment.

UTS will consult with City of Sydney Council in relation to provision of a pickup/set down zone along Thomas Street.

UTS will consult with RMS, Transport for NSW, GANSW and City of Sydney Council in relation to the potential closure of a lane on Harris Street and a new mid block signalised pedestrian crossing to improve pedestrian safety along Harris Street between Broadway and Thomas Street.

Visual Impacts

To minimise visual impacts, the proponent will implement the following:

- Use architectural treatment of facades to break down the perceived scale and massing of new buildings; and
- Retain street trees or provide additional mature plantings to improve the streetscape.

The proponent will undertake a reflectivity assessment of the architectural feature proposed for the Broadway Building during detailed design.

Solar Access

The proponent will undertake a detailed shadow impact study of the Broadway Building during detailed design.

Wind

The proponent will incorporate the following measures into the detailed design of buildings to mitigate any adverse effects on wind conditions:

- 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; and
- Locate pedestrian entrances to new buildings along internal pedestrian links to intercept strong wind flows.

Landscape Design

UTS will undertake the following in relation to landscaping on the site:

- 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.

Contamination

To identify any adverse impacts associated with potentially contaminating activities on the site, the proponent will undertake the following:

- A Stage 2 Environmental Assessment that includes soil and groundwater sampling;
- · Waste classification for offsite disposal of soil and bedrock; and
- A Hazardous Building Material Survey for buildings that are to be refurbished and demolished.

Management and mitigation, if required, will be a function of the outputs of these investigations.

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;
- 5 star Green Star Education target for the new Building 4 and Building 3 (part);
- 4 star Green Star Education target for major refurbished buildings;
- Reduction in overall water campus consumption by up to 20 percent by 2010 (based on 2002 levels);
- A target of 30% reduction in greenhouse gas emissions based on 2007 levels by 2020-21; 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).

Ultimo Pedestrian Network The Goods Line South

UTS will undertake the following in relation to upgrading the area of the **Ultimo Podestrian Network** the Goods Line South to the east of Building 6:

 In consultation with the Sydney Harbour Foreshore Authority Property NSW, the Sydney Institute of TAFE, RailCorp, the Council of the City of Sydney and a representative of DOP_DP&E, investigate options to activate the area and improve its aesthetic appeal, to be completed by the end of 2010 2020.

Develop a strategy to implement the preferred option by the end of 2011 for approval by DOP.

Implement any agreed works in 2012.

3.6.2 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**.

High quality design

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.

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 oriented to facilitate active uses on internal and external streets and provide new, or improved 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 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 Street 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 on 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. *The redevelopment of Building 4 (in addition to part of the Building 3 site that is included in the new envelope) is to provide new direct access points to Alumni Green, including opening up the north east corner towards the Haymarket Precinct.*

Integration and connection

Improving the legibility of the campus by locating and emphasising major gateways and creating new internal and external streets. Multiple north-south and east-west 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 a purpose-designed facilities such as an 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 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.

3.6.3 Urban Design Principles for Bon Marche and Science Precinct

Urban Design Principles identified in the Design Report (**Appendix A**) specific to the Bon Marche and Science Precinct include:

Indigenous Heritage and Culture

Opportunities for the project include mapping, recording and communicating Aboriginal cultural heritage as it pertains to the site and area. This will include considering the academic, social, cultural and emotional wellbeing of Aboriginal and Torres Strait Islander people through the design of its spaces.

Entry and Identity – Bon Marche Repurposed

The Bon Marche building should be considered as a major entrance to the new development, enabling its ground plane to open up and act as a civic plaza to provide connection to the new building lobby and campus beyond.

Western Lane

The proposed building envelope sets back on its south-western edge as it aligns with the current Building 1 podium to create an access into Alumni Green from Broadway. This enables this direct connection as well as joining into the new civic entry space created in Bon Marche and the Terraces.

Experience at street level – Harris Street and Thomas Street

The ability to rebuild an entire block addressing the street and both corners is almost unparalleled in the context of the city. There is an excellent opportunity to transform the urban domain and pedestrian experience along Harris Street and Thomas Street, to focus on transparency, connections and building quality at street level, and to broaden public engagement with the UTS campus.

Articulation and Expression of form - Podium and Upper Form

Utilising the capacity in the allowable envelope, the overall building form should be shaped and articulated to give the best appropriate response in regards to the environmental, urban and university requirements. It should be engaging and perforate at ground level, its facades varied and experimental, and its character representative of UTS as a home for innovation.

Rooftop Gardens – Landscape in the Sky

The opportunity to provide significant new green space to supplement Alumni Green is a key consideration in this proposal.

Alumni Green Experience

Alumni Green is a key open air landscaped space at the heart of the UTS Broadway Precinct. With limited other quality outdoor space in the district, preserving Alumni Green's amenity by maintaining sunlight and outlook from within and enhancing connections to the Green are key to keeping an activated, and inviting public realm.

For further detail on each of the above principles, refer to the Design Principles in the Concept Design Report at **Appendix A**.

3.6.4 Proposed Modifications to Design Quality Controls

As no future development was envisaged under the Concept Plan approval as modified for Building 4 or Building 3, no Design Quality Controls specific to this building have been drafted. The following controls are therefore proposed in relation to Building 4 and Building 3 (part).

Building 4 and Building 3 (part)

- Limit the height of the podium building to approximately RL 35.55 for the entire proposal.
- Limit the height of the additional floors above the redeveloped podium to RL 86.55.
- Provide permeability of the ground plane to connect Harris Street and Alumni Green.
- Provide prominent and clear pedestrian entries off Broadway, Harris Street and Thomas Street.
- Provide pedestrian protection along the length of the Harris Street frontage.
- · 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.
- Respect the heritage significance of the Bon Marche Building, the Terraces and former apothecary.
- Establish an appropriate relationship and setback to the Bon Marche building to support its appreciation and setting from wider viewpoints. Minimum setbacks of 32m from Broadway are to be provided.

3.7 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 proposed 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, as modified 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 (MO08_0116)" dated November 2015, prepared by JBA Urban Planning Consultants, and as **amended by "Section 75W to Concept Plan (MP08_0116) UTS City Campus, Broadway Precinct GFA and Building Envelope Amendments" dated November 2015, prepared by Ethos Urban including:**

- (a) New Broadway Building and Thomas Street Building, with a combined GFA of 44,650 sqm;
- (b) Expansion of Building 1 podium (4,050 sqm) and new Building 2 (60,357 sqm), with a combined GFA of 64,407 sqm;
- (c) Expansion of Building 6 for the provision of student housing, with an additional 25,250 sqm GFA;
- (d) Expansion of Building 4 and Building 3 (part), with an additional 36,500 sqm GFA (with a limit of 26,500 sqm located above ground);
- (e) Modifications to Buildings 3 (part), 4 and 9, 10 and 18;
- (f) Modifications to Alumni Green, with a new Multi-Purpose Sports Hall and book vault beneath;
- (g) Public domain improvements to Broadway and Thomas, Harris, Wattle and Jones Streets.

<u>Reason</u>: This condition is proposed to be updated to reflect the additional GFA and amendment to the Building 4 and Building 3 (part) envelope sought under this modification. A limit on the amount of GFA to be located above ground has been provided in order to address concerns raised by the DRP around ensuring flexibility within the envelope to accommodate sculpting and articulation. Further modifications are proposed to Buildings 3, 9 and 18.

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 UTS City Campus Concept Plan" dated October 2009 and as modified 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, and as **amended by "Section 75W to Concept Plan (MP08_0116) UTS City Campus, Broadway Precinct GFA and Building Envelope Amendments" dated November 2018, prepared by Ethos Urban.**

<u>Reason</u>: This condition is proposed to be updated to reflect the additional GFA and amendment to the Building 4 and Building 3 (part) envelope sought under this modification. Further modifications are proposed to Buildings 3, 9 and 18.

4.0 Consultation

A Communication and Consultation Report has been prepared by KJA and is available at **Appendix E**. The Report summarises all consultation undertaken on the project to date along with that planned to occur in the future. A brief summary of key stakeholders that have been consulted as part of this project is provided below.

4.1 NSW State Design Review Panel

A first session was held with the NSW State Design Review Panel on 25 July 2018. The Panel supported the preliminary proposal and made a number of recommendations to support the achievement of the project aims with a high level of design guality and contribution to the public realm. Their recommendations included the following:

- **Massing and height:** Recommend further testing and design iteration of the building envelope, at ground level and on the podium roof level with particular focus on the Harris Street setback and the cantilever over the Bon Marche Building.
- Heritage: Request further information detailing the conservation approach to the Bon Marche Building, extent of work and interface of the proposal with the Loft courtyard and Terraces.
- Open space: Strong support of the rooftop garden and recommends the proposal improves throughconnections and the internal interface of the Building 4 redevelopment to maximise the accessibility, functionality and amenity of the Alumni Green for students and the public.
- **Public realm, access, entry and circulation:** Multiple recommendations made with the intent to improve the poor pedestrian safety, amenity and lack of campus address along Harris Street.
- Aboriginal cultural heritage: Recommend engagement with the UTS Centre for the Advancement of Indigenous Knowledges and to demonstrate a response to Aboriginal culture and heritage through the design.
- Design principles and controls for the design excellence process: Request further information relating to the proposed design excellence competition, including a clear vision for the building defined along with controls to guide the desired outcome.
- **Drawings and documents:** A number of additional documents were requested to facilitate the provision of further design advice from the Panel.

A second session was held on 12 September 2018, with the DRP noting in their written advice that the proponent has generally responded to the comments raised within the first DRP session. Additional commentary was also provided in order to improve the project prior to exhibition and this has been subsequently addressed/incorporated within the subject modification application. A detailed schedule outlining responses to the key recommendations made by the DRP is included at **Appendix F**.

4.2 City of Sydney Council

The Design Team met with City of Sydney Council (Council) on 14 August 2018. Council were provided with an overview of the proposal and were invited to make comment on the scheme. Following the meeting, an additional comment was made by Council that it would be more beneficial to undertake wind tunnel testing rather than a desktop study to understand the wind impacts on Harris Street. In response to this comment, Council were advised that further detailed wind assessment beyond a desktop study would be undertaken at future stages of the project.

4.3 Agency Consultation

Consultation has occurred with respective agencies by various consultants in preparation of the supporting documentation of this report. This has included the Government Architect of NSW and relevant utility and service providers. Ongoing consultation with relevant agencies will continue to occur throughout the project.
4.4 Community Consultation

UTS intends to consult with the following stakeholders by providing a notification letter, undertaking direct engagement through existing UTS relationships and providing information through the UTS website:

- Central Park (residents and Frasers Property Australia);
- · ABC television and radio studios; and
- Sydney Institute of TAFE.

UTS' program of communication and community engagement to support the proposed modification in the future include:

- Key stakeholder correspondence and briefings;
- Community notification;
- Community information session;
- Project boards/display;
- Project FAQ sheet;
- · Project email; and
- Website and intranet information.

5.0 Strategic Justification

5.1 NSW State and Premier's Priorities

The NSW State plan sets the strategic direction and goals for the NSW Government across a broad range of services and infrastructure. The initial Plan, created in 2011 by incumbent Premier Barry O'Farrell has been revised following subsequent premierships by Mike Baird and Gladys Berejiklian. The current focus of the Government is outlined in 12 Premier's priorities and 18 state priorities.

The 12 Premier's priorities and how the proposal meets these priorities is captured in the table below.

Premier's Priority	Proposal
Building infrastructure – key infrastructure projects to be delivered on time and on budget across the state.	The proposal will lead to the delivery of key tertiary educational infrastructure.
Creating jobs – 150,000 by 2019.	The proposal aims to attract new teaching, research and administrative jobs to the site that will utilise existing connections to advance health and education operations within the precinct.
Driving public sector diversity – Increase the number of women and Aboriginal and Torres Strait Islander people in senior leadership roles.	Not applicable to this application.
Faster housing approvals – Ninety per cent of housing approvals determined within 40 days.	Not applicable to this application.
Improving education results – Increase the proportion of NSW students in the top two NAPLAN bands by eight per cent.	Not applicable to this application.
Improving government services – Improve customer satisfaction with key government services every year, this term of government.	Not applicable to this application.
Improving service levels in hospitals – 81 per cent of patients through emergency departments within four hours.	Not applicable to this application.
Keeping our environment clean – Reduce the volume of litter by forty per cent by 2020.	Whilst not directly applicable to this application, this application and the subsequent development application will result in best practice environmental management techniques relating to water quality and conservation and energy reduction techniques.
Protecting our kids – Reduce the proportion of domestic violence perpetrators re-offending within 12 months by 5%.	Not applicable to this application.
Reducing youth homelessness – Increase the proportion of young people who successfully move from Specialist Homelessness Services to long-term accommodation by 10%.	Not applicable to this application.
Tacking childhood obesity – Reduce overweight and obesity rates of children by 5% over 10 years.	Not applicable to this application.

 Table 6
 Assessment of the Proposal against Premier's Priorities

The 18 State priorities being actioned by the NSW Government are grouped under five main themes. These priorities and how the proposal meets these priorities is captured in the table below.

State Priority	Proposal	
Strong budget and economy		
Making it easier to start a business	Whilst not directly applicable to this application, this application will assist in increasing the capacity of the university to educate and train students in how to start businesses in the future.	
Encouraging business investment	This application will allow for a significant increase in investment into research and teaching spaces within the recognised Innovation Corridor.	
Boosting apprenticeships	Whilst not directly applicable to this application, additional investment opportunities on the site as a result of this application will increase business opportunities in the region, therefore increasing opportunity for apprenticeships.	
Accelerating major project assessment	Whilst not directly applicable to this application, this is a major project for the Harbour CBD. The framework established through this application will assist government in the future assessment of development on the site.	
Protecting our credit rating	Whilst not directly applicable to this application, the level of investment anticipated on the site as outlined above will contribute to the protection of the State credit rating.	
Delivering strong budgets	Whilst not directly applicable to this application, the level of investment anticipated on the site as outlined above will contribute to the delivery of strong budgets.	
Building Infrastructure		
Improving road reliability	Consideration has been made within this application to ensure ongoing reliability of traffic along Harris Street and other key roads surrounding the site. Refer to Section 6.7 for further detail.	
Increasing housing supply	The precinct also has a significant supply of student housing and other affordable, diverse and multi-purpose housing options.	
Protecting the vulnerable		
Transitioning to the National Disability Insurance Scheme	Not applicable to this application.	
Creating sustainable social housing	The precinct also has a significant supply of student housing and other affordable, diverse and multi-purpose housing options.	
Better services		
Improving Aboriginal education outcomes	UTS has a strong history of ongoing improvement of Aboriginal education outcomes. The increase in available teaching and research space will continue to improve these outcomes by providing further capacity to deliver on outreach programs.	
Better government digital services	Not applicable for this application.	
Cutting wait time for planned surgeries	Not applicable for this application.	
Increasing cultural participation	UTS has a multitude of ongoing events and programs aimed at increasing cultural participation. This application will increase UTS' capacity to continue seeking to increase cultural participation.	
Ensuring on-time running for public transport	Whilst not directly applicable to this application, increased capacity of research and teaching spaces on a site with direct access to Central Station and bus services along Broadway will encourage public transport use and increase the efficiency of services.	
Safer Communities		
Reducing violent crime	Not applicable for this application.	
Reducing adult re-offending	Not applicable for this application.	
Reducing road fatalities	Not applicable for this application.	

Table 7 Assessment of the proposal against the State Priorities

5.2 Greater Sydney Commission's Draft Central District Plan

Whilst in the SEARs, it is requested that the applicant address the relevant planning provisions, goals and strategies in the Greater Sydney Commission's (GSC) draft Central District Plan, we understand the most recent applicable strategy is the Eastern City District Plan.

The Eastern City District Plan was released in 2018. It aims to guide the transition of the District within the context of Greater Sydney's three cities to improve the District's social, economic and environmental assets.

The Plan provides a District 20-year strategic housing target of 157,500 dwellings, equating to an average annual supply of 7,875 dwellings over 20 years, or approximately one in five of all new homes in Greater Sydney over the next 20 years. In the City of Sydney LGA there is a 0-5 year housing supply target (2016-2021) of 18,300 dwellings.

The site is located within the identified Harbour CBD, and more specifically, the Harbour CBD's Innovation Corridor and the Camperdown-Ultimo health and education precinct. Refer to **Figure 18** below for the extent of the Innovation Corridor.



Figure 18 Harbour CBD Innovation Corridor

Source: Eastern City District Plan

Relevant actions in relation to these precincts, and how the proposal responds to these actions, is captured in **Table 8** below.

Table 8 Assessment of the Proposal against applicable provisions of the Eastern City District Plan	Table 8	Assessment of the Pro	posal against applicabl	le provisions of the Eastern	City District Plan
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Ac	tion	Proposal	
26	26. Facilitate an innovation corridor that:		
a.	provides access to a sufficient supply of affordable and scalable spaces	UTS continues to provide supply of spaces for all students to collaborate and innovate with their existing and proposed spaces. The proposal will increase this supply through the ultimate delivery of teaching space and collaborative learning areas.	
b.	promotes co-location and increased business- to-business interaction	UTS has a strong history of collaboration with industry and will continue to provide opportunities for their students for ongoing interaction.	

Action		Proposal
C.	connects with event spaces	Whilst this application seeks consent for a modified envelope only, the future spaces of the building are likely to include event spaces for ongoing use by the university and the public (where appropriate).
d.	delivers a high amenity, highly walkable and safe corridor	This application has considered impacts on amenity and transport/accessibility/walkability. Refer to Section 6.7.
e.	has access to affordable, diverse and multi- purpose housing options	The precinct also has a significant supply of student housing and other affordable, diverse and multi-purpose housing options.
f.	supports a strong night time economy	Contribution to the night time economy is a factor that will be able to be assessed as part of a future design competition for the site.
27.	Facilitate health and education precincts that:	
a.	create the conditions for the continued co- location of health and education facilities, and services to support the precinct and growth of the precincts	The growth of UTS relies on this application. Without an increase in the available floorspace for the university to grow, the conditions for the continued co-location of health and education facilities will not be met.
b.	have high levels of accessibility	The subject site is in a highly accessible location, being approximately 250m from Central Station. Consideration has been made at this Section 75W stage to ensure that opportunities to enhance pedestrian circulation in and around the site have been made. Further consideration with respect to DDA compliance can be made at DA stage.
C.	attract associated businesses, industries and commercialisation of research	Ongoing attraction of associated businesses, industries and commercialised research requires ongoing supply of attractive workspaces that will be delivered as part of this application.
d.	facilitate housing opportunities for students and workers within 30 minutes of the precinct	The precinct also has a significant supply of student housing and other affordable, diverse and multi-purpose housing options.
	Deliver a Place Strategy for the Camperdown- mo health and education precinct.	The Place Strategy for the Camperdown-Ultimo health and education precinct has yet to be finalised. Notwithstanding this, any outcomes of a Place Strategy can be further delivered during a future Design Competition and detailed Development Application for the site.

5.3 Better Placed – An integrated design policy for the built environment of NSW

Better Placed is an integrated design policy for the built environment of NSW and was released by the Office of the Government Architect in 2017. It includes seven (7) distinct objectives to define the key considerations in the design of the built environment. Whilst this application seeks consent for an envelope only, with the ultimate development to be driven by a competitive design process, these objectives and how the proposal responds to these objectives at this stage of the process are outlined below:

- Better fit contextual, local and of its place: The final configuration of the proposed envelope has been determined following an extensive analysis of the urban context. The principles used to determine this configuration are outlined in Section 6.3.2.
- Better performance sustainable, adaptable and durable: A Sustainability Brief has been prepared by UTS and is available at **Appendix G**. This Brief outlines the sustainability aspects that are being targeted to ensure a high performing building.
- Better for community inclusive, connected and diverse: Enhanced connectivity particularly with regard to improved access to Alumni Green – has been a key driver of this proposal to ensure access to community facilities. UTS has a strong history of celebrating diversity and inclusivity and will continue to do so throughout the development of this site.
- Better for people safe, comfortable and liveable: Options for the improvement of safety have been strongly considered under this proposal, particularly through issues involving pedestrian congestion along Harris Street. As per the modified Statement of Commitments, UTS will consult with RMS, Transport for NSW and City of Sydney Council in relation to the potential closure of a lane on Harris Street to improve pedestrian safety at the corner of Broadway and Harris Street. Key moves to enhance comfortability and liveability include the proposal to incorporate a Sky Garden above the podium.
- Better working functional, efficient and fit for purpose: The way teaching and learning occurs at
 universities is constantly changing. Whilst this proposal does not provide a level of detail regarding the function

and layout of internal areas, it acknowledges and does not preclude innovative approaches to the design of these spaces in the future. The envelope proposed enables flexibility for creativity, formal manipulation and innovation in future design solutions and provides floor plates that are suitable for the uses of research and teaching buildings to enable effective planning and future flexibility.

- Better value creating and adding value: Being located within the identified Innovation Corridor under the District Plans, the enhanced value of the proposal is associated with the cumulative effect associated with the co-location of innovative industries and universities within this corridor.
- Better look and feel engaging, inviting and attractive: The ultimate design of the future building will be the product of a competitive design process, thereby ensuring that the building is engaging, inviting and attractive.

5.4 Draft Future Transport Strategy 2056 and supporting plans

Released in 2018, *Future Transport 2056* is an overarching strategy, supported by a suite of plans to achieve a 40year vision for NSW's transport system. It provides a vision for transport, which is that transport is an enabler of economic and social activity and contributes to long term economic, social and environmental outcomes. The vision is built on six outcomes:

- customer focussed;
- successful places;
- a strong economy;
- safety and performance;
- · accessible services; and
- sustainability.

The above outcomes are more a focus for Transport for NSW in the delivery of infrastructure throughout the State. The infrastructure itself is relevant to this application. The future of the wider network is captured the documents and describes that the Harbour CBD will continue to be a key metropolitan centre that will be well serviced by public transport. Ultimately, the location of the site within 400m of Sydney largest transport interchange (Central Station) makes it highly accessible and suitable for increased development. This coincides with planned upgrades to improve the functioning and aesthetic of Central Station and develop above the railway corridor as part of the delivery of the Innovation Corridor envisaged in the District Plans.

5.5 RMS Guide to Traffic Generating Developments

Schedule 3 of the *State Environmental Planning Policy (Infrastructure) 2007* establishes development that should be referred to RMS as a Traffic Generating Development. Educational establishments are not specifically listed as a use. A use for 'any other purpose' require 200 or more motor vehicles to be referred to RMS. The proposed development includes the provision of a new basement car park containing 150 car spaces for use by staff members of UTS. Therefore, this policy does not apply and therefore the development will not be referred to RMS.

The content of a *Guide to Traffic Generating Development* has been considered at a high level in the amended concept proposal and will be considered in more detail as part of the future development applications at the site.

5.6 Austroads Guidelines

Austroads publishes a range of Guides which cover the design, construction, maintenance and operation of the road network in Australia and New Zealand. Accordance with relevant guidelines is addressed in the Traffic and Transport Assessment provided at **Appendix H** and also described in further detail in **Section 6.7**.

5.7 NSW Bicycling Guidelines

The NSW Bicycle Guidelines were released by the former RTA in 2005 to assist road designers, engineers and planners to construct high-quality bicycle transport facilities for the people of New South Wales. Whilst this proposed modification to the Concept Plan does not provide or preclude bicycling infrastructure, the ongoing management and encouragement of bicycling by future staff and students of the building will be provided for in an

updated version of the Green Travel Plan for the campus which will include information on the provision of end of trip facilities and the like for the campus.

5.8 NSW Planning Guidelines for Walking and Cycling

The NSW Planning Guidelines for Walking and Cycling were released by the NSW Government in December 2004 to assist land-use planners and related professionals to improve consideration of walking and cycling in their work. The Guidelines relate primarily to the design of wider precincts in and around transport nodes, rather than proposed redevelopment of single buildings. Notwithstanding this, the proposed modification to the Concept Plan is consistent with the Guidelines in that:

- It capitalises on a site that is well connected to public transport interchanges and encourages to encourage non
 private vehicle usage;
- It is located and connected to key pieces of pedestrian infrastructure, such as the Ultimo Pedestrian Network connecting through to the Goods Line;
- It is within close and immediate proximity to bicycle friendly roads (including Harris Street) and dedicated bicycle trails (including Jones Street);
- · A future design will consider and encourage pedestrian permeability throughout the building; and
- Ongoing negotiation is occurring with relevant authorities including RMS to address safety concerns relating to
 pedestrian congestion at the corner of Harris Street and Broadway.

5.9 Crime Prevention Through Environmental Design (CPTED) Principles

CPTED is a crime prevention strategy that focuses on the planning, design and structure of neighbourhoods. Whilst the proposal does not contain detailed elements that may provide further design deterrents for criminal activity, an outline of the key principles of CPTED in relation to the proposed modifications to the Concept Plan are provided below:

- Surveillance: The site is located at the juncture of two highly used roads (Harris Street and Broadway). There
 is also a significant pedestrian flow, primarily along Broadway, between key transport interchanges at Central
 Station across to the key tertiary institutions. The UTS Campus itself also has a high number of students and
 faculty moving throughout it on a daily basis. This significant activity and surveillance acts as a deterrent to
 criminal activity.
- Lighting and Technical Supervision: Whilst this application does not provide or preclude lighting, Harris Street and Broadway are suitably lit by street lighting provided by RMS. There will be opportunity to provide additional lighting and technical supervision at future stages of the development process.
- Territorial Reinforcement: Whilst a future building on the site will act to invite people into the building, there
 will be a clear delineation that the site will be UTS property through the use of signage and wayfinding elements
 to be incorporated into a future approval.
- Environmental Maintenance: Management of a future building on site will be provided by UTS in line with standards maintained across the remainder of the campus currently.
- Activity and Space Management: A future building at UTS can be expected to provide suitable activity and space management through everyday coordination of classes, lectures and research in addition to irregular or one-off events coordinated by the University.
- Access Control: Whilst this application does not provide or preclude access control elements, it can be
 expected that access control will be implemented in a similar way to existing university operations which
 include restricting access to certain areas of the campus for students or faculty with access cards.

5.10 Healthy Urban Development Checklist, NSW Health

Released in 2009, the Healthy Urban Development Checklist aims to assist health professionals in providing advice on urban development policies, plans and proposals. It provides a list of matters for consideration to assess the health effects of urban development and provides examples for how to improve development to provide better health outcomes. Whilst this application is only in relation to a modification of a building envelope and not for a physical building, the application is consistent with the Healthy Urban Development Checklist in that:

- the site's close proximity to key transport interchanges including Central Station, light rail stops and bus services encourage a reduction in car dependence and encourage active transport;
- concept plans for the eventual building on the site have considered ways to encourage active transport including along Broadway and linkages through to the Goods Line;
- the concept proposal has included key areas of open space, including an open space to the top of the podium level as a sky garden;
- as well as delivering new social infrastructure as part of the proposed project, the site also has access to existing facilities and amenities to support the existing university population; and
- through a design excellence process, the eventual development will exhibit the highest standards of sustainable design and ensure ongoing maintenance of air and water quality.

6.0 Environmental Assessment

6.1 Relevant Environmental Planning Instruments

6.1.1 State Environmental Planning Policy (Infrastructure) 2007

Clause 101 (2a) of the ISEPP states 'where practicable, vehicular access to the land is provided by a road other than the classified road'. As Harris Street is designated as a classified road, upon redevelopment of Building 4 UTS will seek to discontinue the existing service access on Turner Lane (which connects to Harris Street) at that time, with all vehicular access to Building 3 and 4 loading areas and parking consolidated to the existing driveway on Thomas Street.

Schedule 3 of the ISEPP establishes development that should be referred to RMS as a Traffic Generating Development. Educational establishments are not specifically listed as a use. A use for 'any other purpose' require 200 or more motor vehicles to be referred to RMS. The proposed development includes the provision of a new basement car park containing 150 car spaces for use by staff members of UTS. Therefore, this policy does not apply and therefore the development will not be formally referred to RMS.

The application does however include proposed concepts for safety and public domain improvements to Harris Street including a mid block signalised pedestrian crossing on Harris Street and possible conversion of the far right lane on Harris street between Broadway and Thomas Street to public domain, which require consultation with RMS.

6.1.2 State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP) identifies various types of development and particular sites upon which certain development is defined as State significant development (SSD). As of 2017, relevant thresholds relating to SSD designation for educational establishments has been transferred to *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* (Education SEPP). Development for the purpose of a tertiary institution within the meaning of the Education SEPP, including associated research facilities, that has a capital investment value of more than \$30 million is SSD. This will be relevant to a future development application on the site.

6.1.3 State Environmental Planning Policy No 55 (Remediation of Land)

State Environmental Planning Policy 55 – Remediation of Land (SEPP 55) aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. It requires that a consent authority must not consent to the carrying out of any development on land unless it has considered whether the land is contaminated, and that if the land is contaminated whether or not the land can be made suitable for the proposed use.

Given the proposed modification application involves conceptually provision for proposed basements (teaching spaces and/or parking), a Contaminated Land Management Report has accordingly been prepared by Canopy Enterprises (refer to **Appendix I**). Canopy Enterprises in reviewing previous contamination reporting and investigations undertaken across the Broadway Precinct advise that subject to following due procedures and risk mitigation strategies, that the site can be made suitable for the development.

6.1.4 Sydney Local Environmental Plan 2012

The Concept Plan Approval (MP 08_0116) continues to have substantial weight and force. The terms of the approval of the Concept Plan prevail despite anything to the contrary in an environmental planning instrument (i.e. Sydney LEP 2012) or development control plan. The maximum gross floor area, building height, land use, and other controls specified in the Concept Plan Approval function in effect as development standards and therefore continue to apply to the site and future development applications.

Notwithstanding this, the relevant controls under the Sydney LEP 2012 are captured in the table below for reference. Refer to Section 6.3.3 and **Appendix J** in terms of Design Excellence and details for how this will be achieved across the precinct.

Sydney Local Environmental Plan 2012		
Zoning	B4 Mixed Use	
Height of Buildings	45m, with the exception of the Terraces (Building 18) which is 15m	
Floor Space Ratio	5:1, with the exception of the Terraces (Building 18) which is 2.5:1	
Heritage	 Two items are mapped under the SLEP 2012 as having local heritage significance: Item I2004: Commercial building including interior at 9-13 Broadway (otherwise known as the Terraces – Building 18); and Item I2005: Commercial building (1-7 Broadway) including interior at 15-73 Broadway (otherwise known as the Bon Marche building – Building 3). 	

Table 9Controls for the site under SLEP 2012

The proposed modifications to the Concept Plan result in a built form that varies from the height and floor space ratio considerations of the SLEP 2012. Refer to **Section 6.3** for further analysis on the built form of the proposed modification.

The heritage items identified under the SLEP 2012 are proposed to be retained and conserved (excluding the nonoriginal built form of Bon Marche). Refer to **Section 6.6** for a further assessment of the heritage implications of this project.

With regards to the land use zoning, educational establishments are permitted with consent in the B4 Mixed Use zone. The table below provides an assessment of how the proposed modifications meet the objectives of the B4 Mixed Use zone. Notwithstanding that the controls of the SLEP 2012 are not strictly applicable, the table demonstrates consistency with these objectives.

Table 10 Assessment of the Proposal against the Objectives of the B4 Mixed Use Z	Table 10	Assessment of the Proposal against the Objectives of the B4 Mixed Use Zone
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Objective	Proposal
To provide a mixture of compatible land uses	The subject site has a history of ongoing use as an educational establishment. This use is entirely compatible within the context of the Innovation Corridor envisaged under the relevant District Plan. The proposed modification to the Concept Plan retains this land use.
To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.	This modification to the Concept Plan does not define future uses for the site. The integration of suitable land uses will be the subject of future applications for the site.
To ensure uses support the viability of centres	As above, this modification to the Concept Plan does not define future uses for the site. The integration of suitable land uses will be the subject of future applications for the site.

6.2 Comparison with the Concept Approval (MP 06_0116)

6.2.1 Assessment and Determination within the scope of Section 75W

The UTS City Campus Broadway Precinct Concept Plan was approved under Part 3A of the EP&A Act, which has since been repealed. In 2017, the Department of Planning and Environment exhibited a Draft Amendment to the EP&A Act that included a suite of reforms including the discontinuation of Part 3A and therefore S75W. The transitional arrangements supporting the discontinuation of Part 3A provide that where Secretary's Environmental Assessment Requirements have already been given for a modification application under the former Section 75W, the application will be determined under S75W provided an environmental impact statement is lodged by 1 September 2018.

SEARs were granted for the proposal on 1 February 2018. Therefore, under the transitional arrangements, if the application is lodged prior to 1 September 2018, it will remain subject to assessment in accordance with the Transitional Part 3A provisions included in Schedule 6A of the Act. Under Schedule 6A, a Concept Plan approved under Part 3A may continue to be modified in accordance with the provisions of S75W of the Act.

With regard to addressing any environmental impacts beyond those already assessed for the Concept Approval, refer to **Section 6.3** to **Section 6.9** below. Demonstration that the proposal is substantially the same with the Concept Plan as modified is further demonstrated below.

Strategic planning commonalities between Mod 5 and Mod 6

Concept Plan (Mod 5) and Concept Plan (Mod 6) have the following strategic planning commonalities:

- The land use type, being a tertiary education facility with a range of educational and ancillary educational uses;
- The building footprint and public domain concept, namely the retention of open space and amenity at ground level at Alumni Green;
- Continued contribution and support of the Innovation Corridor for the Harbour CBD;
- · Ecologically Sustainable Development targets and objectives;
- Transport and travel planning strategy for students; and
- Design quality excellence outcomes are retained.

The above items are fundamental elements of the approved strategic development outcomes for UTS, and are significant to the extent that they encapsulate the underlying purpose of the project as a whole, and also the matter in which the project is intended to be implemented.

Importantly, there are no differences between the Concept Plan (Mod 5) and Mod 6 that affect the fundamental strategic planning elements of the approved development outcomes for UTS that are identified above.

Physical commonalities and differences between Mod 5 and Mod 6

The Concept Plan (Mod 5) and Concept Plan (Mod 6) have the following physical development commonalities:

- Quantity and amenity of ground floor open space at Alumni Green;
- Retention of all other building envelopes with the exception of Buildings 3 (part) and Building 4;
- Retention of the external façade significance of heritage buildings on site; and
- Planned and completed public domain improvements to Broadway and Thomas, Harris, Wattle and Jones Streets.

The main physical differences from a planning perspective between Mod 5 and Mod 6 are:

- An increase in GFA of 36,500m²;
- Provision of additional usable open space for the UTS Broadway Campus of approximately 2,000m²;
- Improved pedestrian access throughout the campus, namely through new direct connections between Alumni Green and Harris Street; and
- Amendments to envelopes of Buildings 3 and 4 which previously did not consider any additional floorspace.

Whilst there are physical changes, relevantly, the Concept Plan, as approved, establishes a planning framework that has as an overarching objective, the delivery of:

- Accommodating growth in teaching spaces and student capacity;
- Accommodating updated teaching philosophies;
- Improving the functionality of the University;
- Creating a new "learning commons" to serve the whole campus;
- Improving sustainability; and
- Improving pedestrian and learning connections across the campus.

In addition to the above, Mod 5 considered an amendment to the building envelope to cater for a new building (UTS Central). Mod 5 was considered to be an acceptable application of the provisions of Section 75W of the Act by the DPE, as stated in the Secretary's Environmental Assessment Report:

Section 75W of the EP&A Act provides for modification of a Minister's approval including 'revoking or varving a condition of the approval or imposing an additional condition of approval.'

Section 75W(2) of the EP&A Act provides that a proponent may request the Minister to modify the Minister's approval of a project. The Minister's approval of a modification is not required if the approval of the project as modified would be consistent with the original approval. As the proposed modifications seek to increase the size of the approved building envelope, the modifications will require the Minister's approval.

As was the case with Mod 5, Mod 6 also requests a modification to the approved building envelopes under Section 75W of the Act, consistent with the approval of Mod 5.

6.2.2 Comparative Assessment between the Proposed Modifications and the Concept Plan

The maximum height of the Bon Marche and Science Precinct was set by the Concept Plan as predominantly the existing building height. The Concept Plan approval did not set a Floor Space Ratio control for the Broadway Precinct. It did, however, establish the maximum GFA and additional GFA to be developed for new buildings and building extensions within the Broadway Campus. The Concept Plan assumed the GFA for the Bon Marche and Science Precinct as the existing GFA. In other words, the approved Concept Plan did not include provisions for the development of the Bon Marche and Science Precinct. The Concept Plan (2009) was informed by UTS's Growth Plan at the time to 2020, which had not foreseen that additional floor area and significant modifications and upgrades to existing buildings was required in the Bon Marche and Science Precinct.

As noted above, the Bon Marche and Science Precinct adjoins the Building 1 podium extension, and it is essential to the delivery of the new Building 1 podium extension that the site planning for the adjoining Bon Marche and Science Precinct is carried out in context with this approval.

The proposed modifications will provide an additional GFA of 39,114m² (including reconciled additional floorspace from Building 4 infill DA). A comparison of GFA approved per building under the initial concept approval, as modified and as proposed to be modified is provided in **Table 4**. A list of guantitative changes between the proposed modifications and the Concept Plan relating to Buildings 3 and 4 only are captured in **Table 11** below.

Table 11	le 11 Quantitative Comparison between Concept Plan and Proposed Modifications for Buildings combined	
	Sydney LEP 2012 / Approved Concept Plan	Proposed Modifications

	Sydney LEP 2012 / Approved Concept Plan	Proposed Modifications
Maximum height of building	49.5m (45m SLEP 2012 control + 10% Design Excellence, noting current building is RL 41.22 (approximately 32m) in height)	RL86.55
Gross Floor Area	 32,732m² (as stated in original Concept Plan) 28,532m² (revised assumed existing GFA) (GFA of existing buildings i.e. no additional GFA approved under the Concept Plan as modified) 	 71,846m² (+39,114m²) 67,646m² (+39,114m²)

6.2.3 Rationale for the Proposed Amendments

The proposed modifications to the Concept Plan approval intend to achieve the following:

- Provide additional teaching and research space to keep pace with strong demand in the tertiary education sector;
- Provide significant additional open space for use by university students and staff through the provision of a sky garden above a future building podium;
- Increase the amenity along Harris Street and provide new pedestrian connections through to Alumni Green;
- Provide continued conservation of heritage assets on site; ٠
- Significantly contribute to the State government's vision to create an 'Innovation Corridor' for the Harbour CBD;
- Maintain solar access to Alumni Green and nearby residential areas;

- · Provide a framework for a competitive design process for a future development; and
- Utilise a development approval pathway currently available under Section 75W of the EP&A Act, as if it were to lapse there would be significant time and cost implications to the realisation of the project.

6.2.4 Justification of Proposed Changes

Due to changes in the tertiary sector since 2008 when the UTS Concept Plan was prepared, as well as since the most recent modification to the approval (Mod 5, 2015), student demand has exceeded all projections and research has grown substantially. The UTS Science facility is experiencing significantly increased demand for sustained growth, across teaching, academics and research space. The research space demand for science is generally greater than some other facilities due to the associated need for lab space.

The Concept Plan was based on providing facilities for a student load of 15,000 Equivalent Full Time Student Load (EFTSL) on the Broadway Precinct by 2015. Upon the latest amendment to the Concept Plan (Mod 5, 2015), the projection for 2020 was 29,142 EFTSL for the City Campus (19,500 Broadway and 9,642 Haymarket). As detailed in **Table 12** below, this projection has already been exceeded in 2017. By 2020, the student load is now forecast to be approximately 40,153 EFTSL across both the Broadway and Haymarket campus – greater than 10,000 more students than was forecast under Mod 5.

	Broadway	Haymarket	Total
2017	25,467	10,955	36,422
2020	30,505	9,648	40,153
2028	32,358	10,033	42,391

Table 12 – Current EFTSL Forecast – UTS City Campus⁵

The following factors have contributed to student numbers increasing beyond previous projections:

- Planned strategic increases in response to current market and competitive conditions including to fund the provision of new courses, student services and facilities.
- Strong growth in both Science and Design, Architecture and Building (DAB) faculties (which has a strong direct impact on available space within Building 4).
- 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.
- 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.
- 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.
- The UTS Kuring-gai campus closed in December 2015. Courses offered at Kuring-gai continue to be offered at the Broadway and Haymarket campuses.
- UTS has provided a number of new and refurbished facilities on the City Campus during the past few years. These have allowed UTS to improve efficiency and provide a better learning experience to students.
- The UTS learning model. This provides a learning foundation that is practice oriented, globally focussed and research – inspired.

⁵ Teaching spaces are shared across the whole City Campus. It is possible that a student could have a morning class at the Broadway Campus and the next class at the Haymarket Campus, making it relevant to read the student population of the City Campus as a whole. These numbers do not include numbers for professional staff, academics and research. The numbers for Haymarket are decreasing, as some of the Haymarket Students will be transferring to UTS Central in 2019.

The Tertiary Education Facilities Management Association (TEFMA) broad planning guideline is 14-15sqm/EFTSL. Prior to the Concept Plan, the Broadway Precinct had a combined GFA of 150,000sqm. The Concept Plan approved an additional 83,750sqm of floor space to cater for an anticipated 15,000 EFTSL by 2015 (totalling 233,750sqm) equating to 15.58sqm/EFTSL. The total GFA approved in addition to the initial concept plan under the 5 previous modifications was 84,750sqm (totalling 318,500sqm). Under the current EFTSL forecasts, this would equate to 11.52sqm/EFTSL for the Broadway Campus alone i.e. without considering the relationship between students attending the Haymarket Campus. This calculation also does not recognise the associated growth in professional staff, academics and researchers that has occurred since the inception of the Concept Plan, which is also forecast to rise.

It should be noted that the UTS learning model is based on a collaborative learning and teaching environment which epitomises contemporary education model, however this model is significantly more space intensive than a traditional learning model. The UTS 2020 Masterplan assumed 50% of teaching and learning spaces across campus would be repurposed or developed as collaborative classrooms, theatres and labs however the take up has been significantly higher with a consequential increase in demand for space to facilitate modern learning.

Accordingly, UTS is now experiencing a space crisis, and additional space within the Broadway Campus is urgently needed.

6.2.5 Consideration of Feasible Alternatives

Four (4) options are available to UTS in responding to the identified need for accommodating increase in student numbers.

Option 1 – Do Nothing

Under the 'do nothing' scenario, the current facilities at UTS would not be able to accommodate the projected increases in student numbers. This would threaten UTS' competitive advantage to provide world-class tertiary education to prospective local and international students alike. It would also jeopardise the NSW Government's strategy to realise the vision for the Harbour CBD's Innovation Corridor and the Camperdown-Ultimo health and education precinct as detailed in the District Plans. This would be a poor outcome for the University, the City of Sydney and the State of NSW.

Option 2 – Planning Proposal

Whilst a Planning Proposal to amend the controls of the SLEP 2012 is a legitimate planning approval pathway, this will add a significant time and cost to the approvals process. As detailed in **Section 6.2.1**, a modification to the approved Concept Plan under Section 75W is a legitimate planning approval pathway and therefore the most appropriate pathway whilst it is still available.

Option 3 – Modify Concept Approval at Alternative Locations

The suitability of modifying alternative buildings within the Concept Plan has been assessed by UTS. Proposals for major modifications depend on the use and remaining lifespan of each of the applicable buildings. This follows major investments into new building infrastructure at UTS in recent times, including the construction of the Thomas Street Building, Broadway Building and Building 2. Ultimately, the modification of the Concept Plan as proposed in this application (involving primarily a modification to Building 4) has been considered to be the most suitable addition to the Broadway Campus considering the time limitations on expansion in other areas, the current location of Science within the Broadway Campus and the forthcoming end of life scenario associated with existing Building 4.

Option 4 – Pursue increases in floor space at Alternative Locations not subject to the Concept Approval

The Concept Plan as approved applies only to the Broadway precinct. UTS also has assets within their Haymarket precinct, including Buildings 5, 8, 13 and 15. Consideration was given to the expansion of these facilities to accommodate increases in floor space. Whilst these buildings are of an age where redevelopment is considered a viable option, as identified in Option 2 above, the available planning pathway under Section 75W for the Broadway Precinct is a more efficient pathway and therefore is being pursued above any potential future redevelopment of the Haymarket buildings, which would need to be subject to a detailed and intensive masterplanning process and an independent planning process.

6.3 Built Form and Urban Design

6.3.1 Historic Context

The original plans development 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 19**). The buildings were intended to act as the gateway to the university. As can be seen from Broadway today, this concept never materialised in full, with only one of the towers built (Building 1).

However, this proposed modification application provides the opportunity for the Government Architect's concept to evolve and be re-imagined by re-introducing additional floors above the main entry / gateway to the campus. With the pending completion of Building 2 (UTS Central), the completion of a modern interpretation of the three towers concept can be enabled by this application.



Figure 19 Michael Dysart's 1960s UTS concept Source: Michael Dysart

6.3.2 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, and in particular support one of Sydney's most important innovation and education corridors. UTS, along with its other education partners play a crucial role in contributing towards and realising the full potential this corridor has to the prosperity of Sydney and NSW more broadly.

The additional capacity of Central Sydney and surrounds that will be unlocked through the step change public transport investment in Sydney Metro is also a key factor in understanding the context of UTS's plans to renew and increase its educational facilities.

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.

6.3.3 Massing Form and Suitability

The design process involved in determining the amended Building 4 and Building 3 (part) envelope has been the subject of a rigorous site analysis and understanding of the functional/capacity requirements of UTS.

The configuration of the building envelope presented at **Appendix A** has been designed to:

- preserve sunlight to the north facing apartments of Central Park on Broadway in accordance with the planning controls for that site (2 hours of solar access between 7.30am and 4.30pm);
- preserve the façade and form of the heritage listed Bon Marche building;
- set back from the corner of Broadway and Harris Street to enable the form and height of the Bon Marche building to be read clearly and distinctly;
- preserve the sunlight amenity that Alumni Green currently enjoys in mid-winter between the hours of 10am 5pm;
- provide large floor plates that are suitable for the uses of research and teaching buildings to enable effective planning and future flexibility;
- provide a height and form that is appropriate for the surrounding urban context; and
- provide an envelope that enables flexibility for creativity, formal manipulation and innovation in future design solutions.

Figure 20 below provides a comparison between the Concept Plan Approval as modified (which did not foresee any development above Building 4) to the proposed envelope under this application. The comparison demonstrates that the proposal retains the longitudinal form of Building 4 along the length of Harris Street. Fronting Broadway, the building form also responds to the Michael Dysart's 1960s UTS Concept, as described in **Section 6.3.1** above.



Figure 20 Comparison between current and proposed building envelope Source: BVN

The envelope has been designed to respond to the emerging urban setting on Broadway and the form of existing buildings on Harris Street, including the ABC Building and Building 6 of UTS. The alignment of the tower from Broadway is also consistent with Building 1 and the Taragon Central Building. The street wall along Harris and Thomas Street is retained, with envelope and principles to be applied to ensure an appropriate upper level response above podium.

The proposed height of the envelope is consistent with the predominant height datum for:

- UTS Building 2 RL80;
- UTS Broadway Building RL 62;
- Lower tower in Block 2 and Block 1 of Central Park RL 80;
- ABC Building RL 72; and
- UTS Building 6 RL80.

6.3.4 Site Density

This proposal seeks to increase the GFA of the Concept Plan by 36,500m². Reconciling GFA already approved under a separate application in Building 4, this results in a total additional GFA of 39,114m². This will result in a total GFA for the Bon Marche and Science Precinct (Buildings 3, 4, 9 and 18) of some 65,000m². This will bring the total amount of additional GFA sought under the Concept Plan (as proposed to be modified) to 155,163m² – an increase of 70,413m² since initial concept approval.

This will result in a total GFA for the UTS Broadway Precinct (excluding Building 6) of 7.31:1 (including reconciliation of Building 4). This exceeds the FSR stipulated under the SLEP 2012, which is 5:1 (and 2.5:1 for the Terraces). The FSR also exceeds the FSR of 5.5:1 permissible under the bonus provisions where buildings demonstrate design excellence. These controls are provided here for reference only, as they do not apply to concept plans. This modification would prevail over any Local Environmental Plan.

It is noted that the FSR controls within the LEP are over 10 years old, as they were adopted from the Sydney LEP 2005. Since this time, there has been considerable growth and renewal within Central Sydney corresponding with a significant investment in infrastructure. The context and importance of the broader UTS precinct within the now formally recognised 'Innovation Corridor' since this time has also had a significant bearing on the appropriate density for the site.

It is further noted that as part of the draft strategic plan for Central Sydney (*Central Sydney Planning Strategy*) released in July 2016 identified the future new growth/tower cluster within the Haymarket precinct, which includes and adjoins the UTS Broadway Precinct. This further reaffirms the suitability for the additional density proposed, given the future context is one where growth is expected and will be promoted. Refer to **Figure 21**.





The proposed increase in density is considered acceptable, as it responds to the dense urban setting whilst simultaneously providing for increased opportunities for open space provision through a Sky Garden. The ultimate design and how it could further respond to the urban setting will be resolved as part of a future design excellence process.

6.3.5 Design Excellence

In accordance with the SEARs, a Design Excellence Competition Strategy for the future stages of the development is required to demonstrate how design excellence will be achieved. This Strategy is available at **Appendix J**.

The achievement of design excellence 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.

UTS has a proven track record and is at the forefront of delivering the highest standard of architecture, urban design and landscaping – consistent with the objectives of Design Excellence under Clause 6.21 of Sydney LEP 2012. The proposed building envelope has been specifically developed as noted in order to provide a range of design solutions and ideas to be developed for the Precinct and will therefore support the future competitive design process/es to be undertaken.

6.4 Public Domain/Open Space

6.4.1 Sufficiency of Open Space Provision

The Broadway Precinct Concept Plan provided for the delivery of additional open space within the campus in the form of ground level Alumni Green, Podium roofs and Sky Terraces within UTS Central (Building 2) and Roof Garden within Building 7. Open space was also provided within the Building 6 Student Housing development contained within the concept plan site, however this has not been included here as its use is restricted only to the 720 students residing in that housing development.

Other existing open space available for student and staff use within the Broadway Precinct includes two courtyards within Building 6 and two north facing roof podium terraces within Levels 5 and 6 of Building 1, one of which incorporates indigenous garden beds associated with the adjoining Jumbunna Institute for Indigenous Education and Research.

UTS is also currently liaising with the City of Sydney Council in relation to potential redevelopment of Jones Street as a new landscaped public domain area post completion of new Building 2. If successful, a future application will be lodged for additional open space within the Jones Street footprint further increasing provision of open space for the public in addition to student use. This area is to be determined as part of the liaison and negotiation with Council and therefore not included in assessment of area below.

The additional open space delivered (or under construction in the case of UTS Central) within the Broadway Precinct Concept Plan site is outlined as follows:

- Alumni Green 7,000m²
- Phase 1 UTS Central (Building 2) Level 8 and Level 17 landscaped open space 2,260m²
- Building 7 Roof Garden 750m²

Also approved but yet to commence construction is UTS Central (Building 1) Level 8 podium landscaped open space – 2,000m².

The total of above additional open space approved under the concept approval to date is around 12,010m². Alumni Green and Building 7 roof garden provided 7,750m² open space for 14,225 students and staff in 2008 with forecast growth at the time to reach 22,413 by 2020. Accordingly, the rate of *additional* open space provided as part of the original concept plan approval to meet the 2020 Masterplan requirements was 0.35m² per FTE staff/EFTSL student by 2020.

With student and staff growth exceeding initial projections for reasons explained in previous applications, the Concept Plan was modified in 2016 to facilitate the redevelopment of Building 2. A new Building 2 (known as UTS Central), is currently under construction and as outlined above includes three new significant landscaped open spaces areas totalling 2,260m² in size within phase 1. Building 2 is due to be completed and occupied by 2020. The second phase of the UTS Central project includes a new podium fronting Broadway for Building 1 which includes a level 8 landscaped terrace. Subject to detailed landscape design for the roof terrace, it is estimated based on the approved Level 8 footprint that the new Building 1 open space could deliver approximately 2,000m² additional open space.

In 2017, UTS student and staff numbers for the Broadway reached 25,467 exceeding the 2020 projections under Masterplan ahead of time. Student and staff numbers for Broadway Precinct are currently projected to reach 30,505 by 2020 largely related to the completion of UTS Central and relocation of Law and Library from Haymarket to Broadway Campus.

While the UTS Central project open space will provide additional open space to cater for the needs of an increasing campus population, by 2020 the provision of additional open space facilitated by the concept plan will be 10,010m² equating to an additional open space ratio of 0.33m² per FTE staff/EFTSL, which is slightly less in area than the original ratio though significantly enhanced in offering. This ratio shall increase to 0.37m² per FTE staff/EFTSL upon completion of UTS Central Phase 2 (Building 1 podium extension) based on growth figures to 2028.

The Bon Marche and Science Precinct incorporates a proposed sky garden as a key design principle intended to incorporate landscaped open space and a series of indoor and outdoor pavilions, teaching rooms and potential cafes and campus support facilities. The design of the sky garden level will be determined in subsequent stages of the project through a design competition and subsequent planning application/s. Allowing for some (assumed 30%) of the proposed sky garden envelope to accommodate some of the above uses, it is assumed that the proportion of the sky garden that will be usable as open space will be generally in the order of 2,000m².

UTS's current projection is for 32,358 EFT/EFTSL staff and students for the Broadway Precinct by 2028. Accordingly, the proposed Skygarden would increase the additional open space developed/approved under the concept plan from approximately 12,010m² to 14,010m², increasing the potential area of open space provided on a per student/staff basis to 0.43m² by 2028, based on current projected growth figures. This will positively enhance the student and staff experience and make a significant further contribution to the provision of open space within a highly constrained urban campus space. Further these figures do not account for any additional public domain/open space areas that may also be provided at ground level.

Apart from the numerical area calculations in relation to open space, the real benefit lies in the proposed design setting an envelope that will allow for future development of open space that links at an above ground level landscaped open space areas from Building 7 through the new development and future Building 1 podium extension to Building 2 roof terrace and library. This innovative design feature will facilitate a layer of open space that had not been contemplated before for such a dense urban university campus that started life with poor open space with minimal amenity.

6.5 Environmental Amenity

6.5.1 Solar Access

A shadow analysis has been undertaken by BVN to determine the extent that a development which occupies the full proposed envelope would impact on solar access (i.e. a worst-case scenario). Given the variety of land uses that may be affected by the proposal, the Design Team determined the extent of the envelope based on the following solar access parameters:

- preserve the sunlight amenity that Alumni Green currently enjoys in mid-winter between the hours of 10am 5pm;
- minimise shadow impacts to surrounding residential apartment buildings, in particular Central Park (also known as the Fraser's site) on Broadway in accordance with the planning controls for that site; and
- preserve sunlight to the Building 2 north podium.

The provisions of *State Environmental Planning Policy 65 (Design Quality of Residential Apartment Development)* and the associated Apartment Design Guide (ADG) apply in relation to solar access, in particular that living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9am and 3pm mid-winter.

A detailed analysis of the surrounding area revealed that there are six (6) key surrounding residential apartment buildings potentially affected by the proposal in terms of shadow impacts. These are:

- 12-26 Regent Street;
- 1-5 Dwyer Street;
- 16 18 Broadway;
- One Central Park (Block 2A);
- One Central Park (Block 2B); and
- 732 Harris Street.

BVN have undertaken a detailed cumulative assessment of potential shadow impacts to each of these buildings during mid-winter. The results reveal there are negligible overshadowing impacts resulting from the proposal. In short, current levels of solar amenity currently being received by occupants within these buildings will generally remain unchanged as a result of the proposal (this is evident within **Figures 22** and **23** below).

Given the proximity to Central Park, additional shadow modelling has been undertaken, including taking into consideration the solar amenity controls applied under MP 09_0078 (as modified), which states that a minimum of two hours solar access is required between 7.30am and 4.30pm in mid-winter, which is less than the requirements of the ADG.



Figure 22 Existing cumulative solar access to surrounding key residential apartment buildings, mid-winter Source: BVN



Figure 23 Proposed cumulative solar access to surrounding key residential apartment buildings, mid-winter Source: BVN

Alumni Green is not expected to be affected by additional shadow at any time after 9.30am. Additional shadow does extend across the Building 2 podium prior to 10am.

To summarise, the shadow study indicates the following at mid-winter:

- the proposed envelope will cast no additional shadow on Alumni Green between the hours of 10am and 5pm;
- Minimal to no overshadowing impacts to surrounding residential apartment buildings; and
- the proposed envelope will cast no additional shadow on the Building 2 podium after 10am.

6.5.2 Wind

An Environmental Wind Assessment has been prepared by Arup and is available at **Appendix K**. The purpose of the assessment is to provide an experienced-based impact assessment of the proposal's impact on the pedestrian level wind conditions for comfort and safety in and around the site.

Qualitatively, integrating the expected directional wind conditions around the site with the wind climate, it is considered that wind conditions would be similar to existing conditions with the majority of locations classified as suitable for pedestrian standing activities. Slightly windier locations are expected on the corner of Broadway and Harris Street where wind conditions may exceed the standing level and be classified as suitable for pedestrian walking. Other regions within Alumni Green and close to the façade along Harris Street would be expected to meet the pedestrian sitting classification. The setback from the north of the site is beneficial in allowing the flow to discharge over the roofs of the buildings to the east of the site rather than be directed at ground level.

An open podium roof level would be expected to experience relatively windy conditions for winds from all directions. The flow would be accelerated by the pressure differential on either side of the building inducing wind speeds faster than the incident flow. The intended use of this space would dictate the architectural design to combat the wind issues of this level. As per the Landscape Concept Report (**Appendix D**), a central access spine is proposed on the advice of Arup to protect either side.

All locations would be expected to meet the safety criterion. Further testing regarding the wind impact of the proposal will be made at future detailed design phases of the development.

6.5.3 View Loss

A comprehensive Visual Impact Assessment has been prepared by Architectus in support of the proposed modification application and is included at **Appendix L**. This analysis builds on previous Visual Analysis prepared by Clouston Associates in support of the Concept Plan in 2009, as well as two Visual Impact Assessments prepared by Architectus relating to the UTS Central development (now under construction).

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 20 public domain views and 19 private views. Of the 19 private views, twelve (12) were selected for detailed analysis. Refer to **Figure 24** for a location of these views.



Figure 24 Location of views selected for Visual Impact Assessment Source: Architectus

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.
- Views of moderate or greater importance that are expected to have a moderate or greater impact to view change include:
 - George St Railway Sq bus stands;
 - Corner of George St and Regent St; and
 - UTS Alumni Green.
- The above views take away an area of existing sky view, however do not take away any views of other items of significance.
- An LEP-compliant envelope would take away a similar or in some cases greater extent of the sky view.

Private Views

The detailed analysis undertaken by Architectus reveals there will be some impact on private views, with views of moderate or greater importance that will experience moderate or greater change including:

- **One Central Park (Levels 16 and Level 5**): This building enjoys views from the dining/kitchen across the front boundary to the city skyline and harbour, that could be obstructed by the proposal;
- The Hightown Building (Level 9): This building enjoys direct views across the front boundary down Harris Street. Key elements of this view include unobstructed views of the Bon Marche heritage buildings. There are some iconic elements captured in this view, with the Anzac Bridge and potentially some water view beyond Pyrmont impacted.
- The Taragon Central Building (Levels 16 and 12): This building enjoys views across the front boundary from the front balcony. The direct view includes buildings considered to be of prominence within the locality, notably Central Park and the UTS Tower, which could be partially obstructed by the proposal at both levels.

It is important to note that both of these buildings would be similarly affected by an LEP height compliant proposal. It is further noted that this impact has examined the full extent of the proposed envelope, and future view impact may be mitigated as part of the ongoing design excellence process associated with a future development.

6.5.4 Acoustic Impacts

Given that no physical works are proposed under this application, relevant assessment with regards to acoustic impacts will be made as part of a future State significant development application.

Considerations in terms of future design requirements to address noise sources (such as Harris Street) will also be further investigated and addressed as part of future DAs and the detailed design phase.

Further, given the isolation of the site from more sensitive residential receivers (with major roads bisecting the site), any future potential operational noise impacts are expected to be able to be appropriately managed.

6.6 Heritage

This section is informed be a Conservation Management Plan (CMP) prepared by Paul Davies Pty Ltd (**Appendix B**), a Heritage Design and Impact Statement prepared by Paul Davies Pty Ltd (**Appendix M**) and an Archaeological Assessment prepared by GML Heritage (**Appendix N**). As detailed in **Section 2.2**, the CMP is in response to two local heritage listings on site:

- Bon Marche Building; and
- Three retail terraces fronting Broadway and the former Apothecary.

6.6.1 Statements of Significance

In accordance with the SEARs, statements of significance have been prepared by Paul Davies Pty Ltd in relation to these heritage items. These are provided below as verbatim from the CMP.

Bon Marche Building (Formerly 1-7 Broadway, Ultimo) - CB03

The Bon Marche building, built in 1909 to a design by architects McCredie & Anderson as the Bon Marche department store for the Marcus Clark retailing empire, with its 1928 northern extension designed by architects Spain & Cosh, is of local historical significance as part of the Marcus Clark retailing empire which then included three city stores. The name Bon Marche derives from the Le Bon Marche store concept in Paris, with the French store introducing the design paradigm of department stores with voluminous, continuous interior spaces with upper floors and galleries. Though the Sydney Bon Marche building (from the architectural drawings) did not replicate this concept for the interiors, it did provide "spacious well-it" floors where "no overcrowding" was experienced.

The Bon Marche building is of local historical significance as evidence of early 20th century retailing and commercial development in the Ultimo/Pyrmont area along Broadway, the main thoroughfare into the city from the west, then a major tram route and also in proximity to Central railway station.

The Bon Marche building is also of local historical significance for its continuous use for higher education since 1959, initially for the Sydney Technical College and from 1974 for the Institute of Technology which later became UTS.

The 1909 and 1928 portions of the Bon Marche building have local historical association respectively with designers, architects McCredie & Anderson and architects Spain & Cosh. The Bon Marche building has local historical association with the Marcus Clark retail chain from 1909 to 1966, and with Sydney Technical College and UTS from 1966 to the present.

The Bon Marche building as a whole (both 1909 and 1928 portions), is of local aesthetic significance as a fine representative example of an architect-designed commercial building in the Federation Free style.

Research potential should be assessed if excavation is proposed.

The 1909 portion of the Bon Marche building is locally rare as an extant example of a major commercial/retail building designed by architects McCredie & Anderson. Many of the major works of this architectural partnership have been demolished, with the former Mark Foys building (302 Castlereagh Street, Sydney), and former Burns Philp building (5-11 Bridge Street, Sydney) being the only other remaining heritage-listed examples of major commercial/retail buildings designed by McCredie & Anderson within the City of Sydney area.

The Bon Marche building is a representative architect-designed commercial/retail Federation Free style building.

Terraces & Former Apothecary Building (Formerly 9-13 Broadway Ultimo) – CB08 and CB09

The terrace shops and former apothecary building are of local historical significance as a suite of commercial/retail buildings built in 1887 which provide evidence of late 19th century commercial/retail development along Broadway, the main thoroughfare into the city from the west, then a major tram route and also in proximity to Central railway station. The terraces and former apothecary building have additional historical significance for their original uses: of No. 9 as a chemist, the use relating to the use of the former Apothecary building at the rear; No. 11 as a branch of the Commercial Banking Company (CBC), Sydney; No. 13 as a tobacconist, and the former Apothecary building at the rear as an apothecary (manufacturing chemist) accessed from Broadway via a narrow passage adjacent to the terrace at No. 9. The buildings are of additional local historical significance due to having been designed by major architects of the time for the Commercial Banking Company (CBC), Sydney.

6.6.2 Impacts on Heritage Significance from the Proposed Modifications

A Heritage Design and Impact Statement has been prepared by Paul Davies Pty Ltd and is available at **Appendix M**. An assessment of the impacts of the proposed envelope changes has been made in this Statement, however, further assessment is required as part of a future detailed design process where fabric impacts, for example, can be understood or assessed.

Heritage impacts on the site can arise from either change to the building fabric, both small and large, or from the potential impact of the new built form on the setting of the heritage items. It should be noted that existing approvals are in place for development along Broadway to the south and west of the terrace buildings that will change the visual setting and context of the street in the future. A summary of potential impacts on the key heritage buildings on site includes:

- Terrace Buildings: generally, the Terrace Buildings are retained with little change. However, to facilitate new
 uses (appropriate to the scale and layout of the buildings), there will be some change and potential to recover
 significance where it may have been lost or altered, particularly in the more significant former public spaces of
 the building.
- Bon Marche Building (original section): no major heritage impacts are anticipated, as the changes will be
 largely internal where there is limited heritage significance. Recovery of the main area of significance of the
 building, the facades, will have positive heritage outcomes. While it is not possible to recover the original form
 due to rendering and fabric changes, works such as altering windows, reinstating colour schemes that are more
 consistent with the original form of the building and general recovery of opening forms will assist in recovering
 significance.
- Bon Marche Building (northern addition):. Recovery of the main area of significance, the facades, will have
 positive heritage outcomes. The remainder of this part of the rear addition is to be demolished and redeveloped
 as part of new building.
- New built form: Potential new built form is proposed within an envelope that cantilevers over the rear wing of Bon Marche and part of the former Apothecary Building. While there is limited potential for impacts on heritage values from the proposed forms north along Harris Street (as they do not form part of the visual setting of the heritage buildings) the scale of new built form (putting aside design) has potential to adversely impact the setting of the Bon Marche Building. Future building fabric and form will be critical in reducing this impact and forming a positive relationship between the new and existing built form.

6.6.3 Archaeology

An Archaeological Assessment has been prepared by GML Heritage and is available at **Appendix N**. The assessment found that the study area was not connected with known and/or potential Aboriginal heritage or archaeology.

Historical records of the site indicate that European use of the site commenced as 'Ultimo Estate' (otherwise known as 'Harris Estate'), which was a series of grants to and purchases by John Harris between December 1803 and May 1818. Harris effected the realignment of Parramatta Street which previously ran through his property to the present alignment of Parramatta Road. An overview of potential archaeological resources within the study area are captured in **Table 13** below and are primarily associated with phases prior to, during and after the occupation of Harris Estate prior to more recent history in the preceding century. However, it is noted that deposits post 1900 are unlikely to hold any heritage significance.

Source: GML Heritage		Persikle Ambaselesisel Denseit
Date (Phase)	Feature / Deposit	Possible Archaeological Deposit
Pre-Harris Estate Pre-1800s	Parramatta Street (pre 1806)Lot boundariesOriginal Landforms	 Road fabric and surfaces (sealants, gravels, wood blocks), kerb stones, drainage features, culverts, pavement etc. Post hols and fence alignments Original landforms, soil horizons, soil deposits, bedrock etc.
The Harris Estate c. 1800-c. 1850s	Harris' Estate	Landscape modification, such as land fill and changing landforms for creation of the gardens
		• Features associated with the Harris Estate gardens – e.g. garden beds, paths, soils from agriculture, rubbish puts, miscellaneous relics, small structures associated with gardening and the garden area, fence posts etc.
Post Harris Estate From the 1830s	 Houses / shops Yards Stables Lot boundaries Lane ways Roads Baptist Church 	 Walls, internal sub-floor deposits, cellars, piers, post holes, shop paraphernalia. Cesspits, refuse pits, cisterns, wells, yard surfaces Walls, floors, surface and foundations etc associated with structures Post holes, fence remains Road base, bitumen surfaces, kerb stones, gutters Remains of the Baptist Church
Post 1950s	 Demolished historical buildings First UTS buildings (extant) 	 Debris from foundations / footings of earlier 19c structures Works associated with the earliest UTS buildings (extant).

Table 13	Overview of potential archaeological resources within the study area
Source: GML Heritage	

The impact assessment identified that some of the potential archaeological deposit identified in **Table 11** could be directly affected by development consequent of implementation of the proposed works, as shown in **Figure 25** below.





Figure 25 Indicative basement area within Section 75W Area, showing impacts to potential archaeological features

Source: GML Heritage

6.7 Transport and Accessibility

A Traffic and Transport Impact Assessment has been prepared by TTPP and is available at **Appendix H**. The assessment includes:

- analysis of existing traffic conditions and public transport operations;
- analysis of the existing pedestrian load in vicinity of site along Broadway, at the corner of Harris Street and Broadway and mid block between Thomas Street and Broadway;
- analysis of existing and future loading capacity; and
- assessment of the traffic generation, parking provision and access arrangements of the Concept Plan (as proposed to be modified).

A summary of TTPP's assessment is provided below.

6.7.1 Traffic

The indicative design scheme submitted with the proposal identifies that should the basement envelopes be developed for parking purposes they could accommodate a future car park with 150 spaces. This car park is anticipated to generate a similar level of traffic to Building 10. Based on equivalent rates of use from the Building 10 car park (0.27 and 0.24 trips per space for the morning and afternoon peak respectively), it is anticipated that the 150 space car park would generate 41 trips per hour in the morning peak and 36 trips per hour in the afternoon peak.

The estimated traffic to be generated by the proposed development is minor, resulting in approximately one to two vehicles per minute on adjacent roads which currently carry over 2,000 vehicles per hour. On this basis, the proposed development traffic is anticipated to have a negligible impact on the road network. This includes acceptable levels of intersection performance at all nearby intersections.

6.7.2 Parking

Parking requirements under the SLEP 2012 for education facilities is to be provided at a maximum parking provision rate of one space per 200m². Therefore, the proposed development with a potential total maximum floor area of some 65,000m² across the precinct has a maximum permissible parking requirement of 325 spaces. The proposed parking provision of 150 spaces for staff is therefore compliant with Council's maximum permissible requirements. The proposal does not include any parking for students, which is consistent with the principles of the approved Concept Plan, which focuses on sustainable transport modes for students.

6.7.3 Public Transport

Major upgrades to the public transport network are underway in Sydney which will provide significant additional capacity. Key projects that will impact on the site include the CBD and South East Light Rail (CSELR) and Sydney Metro, with both projects having new station locations at Central Station. On this basis, the future trip generation of the Broadway Campus with a total of 5,582 train and bus trips per day would equate to less than five per cent of the CSELR capacity and less than one per cent of the Sydney Metro capacity.

6.7.4 Pedestrian load

An analysis has been undertaken with respect to the existing pedestrian load of Harris Street and Broadway which indicates that up to 2,600 pedestrians per hour walk to and from the east via the Harris St intersection. Based on the footpath width, the Harris Street and Broadway footpaths are currently operating at a Level of Service (LOS) B and C respectively. This indicates that the footpaths have available capacity extending within the increasingly uncomfortable level, though pedestrians would experience some conflict from opposing movements.

The detailed design of the Bon Marche and Science Precinct will therefore look to improve the pedestrian connectivity and accessibility to and around the campus. As indicated in **Section 2.3.4**, at this Concept Stage, this includes possible direct new access to Alumni Green at the south-eastern corner of the courtyard. Between this access point and Broadway, the ground floor is of the building is proposed to include a pedestrian circulation zone with a porous façade to alleviate pedestrian congestion at the corner of Broadway and Harris Street.

6.8 Public Benefits, Contributions and/or Voluntary Planning Agreement

In relation to public benefits, services and infrastructure, universities are significant contributors to the NSW economy. Collectively, NSW Universities produce 70,000 graduates per annum, educate more than a third of Australia's next generation of professionals, provide payroll tax to the State of \$188M per annum, and make an estimated economic contribution to the NSW State of \$10B per annum.

In addition to education, research, and employment opportunities, Universities provide a range of essential and support services and infrastructure to their communities, as well as the wider population at large. Universities provide an extensive range of social and public benefits to the local community and broader region including significant areas of open space, sport and recreational facilities, libraries, museums, childcare centres and medical services, and public talks/events, all of which are available for use by the general public. Furthermore, Universities maintain and upgrade the roads, footpaths, cycleways, and stormwater/utility infrastructure within and near campus and site boundaries.

Universities are classified as Crown authorities for Development Applications (DAs) under the EP&A Act to ensure developments are not unreasonably refused or conditionally approved. This also extends to the levying of development contributions.

The existing Department of Planning Circular D6 - Crown Development Applications and Conditions of Consent (revised Issue 21 September 1995) ("Circular D6") applies to Crown Development Applications (DA's) to ensure Universities (amongst other Crown authorities) are not required to pay contributions for development, other than in very minor and specific cases.

It is noted that it has been accepted that no contributions were warranted on all previous major stages of development identified under the Concept Plan Approval and a Voluntary Planning Agreement does not exist, nor proposed, for the UTS Broadway Campus.

There are a number of reasons why the redevelopment of the Bon Marche and Science Precinct in accordance with the Concept Plan approval should continue to be exempt from contributions under Council's Contributions Plan, including:

- 1. UTS campus, open space, retail precincts, informal learning areas, library and facilities is open to public access and use.
- 2. UTS plan to undertake significant public domain works along Thomas Street, Harris Street and Broadway to enhance the public realm as part of the Bon Marche and Science Precinct redevelopment. This includes the delivery of significant additional landscaped space and footpath expansion along Harris Street should RMS support the proposal for modifications to the width of Harris Street between Thomas Street and Broadway.
- 3. UTS provides a wide range of facilities with social benefits including library, art gallery, child care facilities, recreation facilities, gym, medical centre, public events, talks and symposiums.
- 4. Universities are not for profit public authorities and education/research providers.

A further detailed justification for continued exemption from Council's Contribution Plan will accompany a future development application for works associated with the redevelopment of this part of the campus.

6.9 Flooding and Drainage

A Preliminary Stormwater Management Concept Plan has been prepared by Arup and is available at **Appendix O**. The purpose of the report is to summarise the proposed stormwater management strategies to be implemented as part of the development, with particular regard to flooding, stormwater detention, trunk drainage and water sensitive urban design (WSUD).

The assessment found that stormwater runoff from the existing buildings discharge to the street stormwater network via numerous connection points and kerb outlets along Harris Street and Thomas Street. From the corner of Thomas Street and Harris Street, the Sydney Water/City of Sydney stormwater network drains to the north.

Previous flood studies conducted by the City of Sydney show Broadway, Thomas Street and Harris Street adjacent to the proposed development to be free of flooding up to the 1% Average Exceedance Probability (AEP) event. In the Probable Maximum Flood (PMF), the Council flood maps show flooding to a depth of approximately 0.1m. Modelling that takes drainage works to Alumni Green into account indicates that flooding in the Alumni Green area adjacent to the proposed development is not anticipated. Based on this review, it is concluded that the development site is not flood affected in events up to the 1% AEP and therefore would not be subject to specific flood related development controls.

The proposed development does not include an increase in impervious area. Stormwater discharge from the site will utilise existing connections to the adjacent street stormwater network. Sydney Water has confirmed that on site detention is not required for the development. The proposed development is to include a combination of stormwater quality strategies including green roofs, rainwater harvesting and reuse, gross pollutant traps and filtration systems in order to meet Council water quality requirements. The final configuration of these features will be determined at later design stages.

6.10 Infrastructure and Services

A Preliminary Infrastructure Assessment has been completed by Arup and is available at **Appendix P**. The purpose of the report was to determine utility servicing requirements at the site.

Based on this preliminary assessment, the site will be able to be serviced via existing stormwater drainage, sewerage, potable water supply, electricity, telecommunications and natural gas infrastructure. Some on-campus infrastructure upgrades may be required, including the existing electrical substation, and a gas pressure reduction chamber. Further capacity assessments and connections to existing utility services can be made as part of future State significant development applications on the site.

7.0 Conclusion

This Section 75W modification seeks approval for amendments to the UTS City Campus Broadway Precinct Concept Plan, namely:

- Conceptual demolition of existing Building 4, and rear section of Building 3,
- Conceptual modification to heritage items, Building 3, Building 9, and Building 18;
- Creation of a new building envelope for Building 4, Building 3 (part) and Building 9 (cantilevering over only), resulting in a maximum height of RL 86.55, an increase of approximately 45m above existing Building 4 and approximately 50m above existing Building 3;
- Corresponding increase in GFA for Building 4 and Building 3, comprising an additional increase of up to 36,500m² (with a limit of 26,500m² additional GFA above ground);
- Consequential amendments to the Urban Design Quality Controls/Principles to guide the future development of the Bon Marche and Science Precinct; and
- Indicative landscape and public domain concept for the precinct.

UTS has experienced a period of unprecedented growth, whereby projected student number increases into the near future have already been surpassed. This growth has been driven by increasing demand from overseas students and strategic growth programs of the University. The proposed modifications will further strengthen UTS's position as one of Sydney's and Australia's leading tertiary education providers.

Strategic Merit

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;
- provide opportunities to increase the extent of open space to the top of the podium level as a sky garden;
- contribute to the creation of the Harbour CBD's Innovation Corridor and the Camperdown-Ultimo health and education precinct as envisaged under the District Plan; and
- strengthen the western gateway to the Sydney CBD.

Summary of Environmental Impacts

The proposed modification to the Concept Plan Approval is anticipated to have the following environmental impacts:

- built form and urban design: the configuration of the building envelope adequately responds to a range of criteria including preservation of solar access to Central Park/Alumni Green, maintaining heritage significance/appreciation of Bon Marche, providing floorplates suitable for educational use and providing a height/form suitable for the surrounding urban context.
- public domain and open space: concept plans have identified opportunities to provide significant additional quantities of open space on the podium as a 'sky garden'. Opportunities to improve the pedestrian experience along Harris Street connecting through to Alumni Green are also to be explored in a future competitive design process.
- solar access: the configuration of the proposed building envelope has been tested to ensure:
 - No impact from overshadowing on Alumni Green between the hours of 10am 5pm mid-winter; and
 - Minimal to no overshadowing impacts to surrounding residential apartment buildings.

- public view loss: the proposed building envelope will have a moderate or greater impact on the following views, however, it is noted that an LEP-compliant envelope would take away a similar or in some cases greater extent of the sky view:
 - George St Railway Sq bus stands;
 - Corner of George St and Regent St; and
 - UTS Alumni Green.
- private view loss: the proposed building envelope will have a moderate or greater impact on the following views, however, it is again noted that an LEP-compliant envelope would provide a similar impact:
 - One Central Park (Levels 16 and Level 5);
 - Tarragon Central (Levels 16 and 12) and
 - Hightown (Level 9).
- noise: given that no physical works are proposed under this application, relevant assessment with regards to
 acoustic impacts will be made as part of a future State significant development application.
- heritage: areas of high heritage significance on the Bon Marche building are primarily related to façade elements which are to be retained under the proposal. The impact of a new built form cantilevering over heritage assets will require sensitive design elements in a future built form, which can form part of a future competitive design process.
- vehicular transport: the estimated traffic to be generated by the proposed development is minor, resulting in
 approximately one to two vehicles per minute on adjacent roads which currently carry over 2,000 vehicles per
 hour. On this basis, the proposed development traffic is anticipated to have a negligible impact on the road
 network. This includes acceptable levels of intersection performance at all nearby intersections.
- pedestrian accessibility: concept plans have identified opportunities to improve pedestrian accessibility in and around the site, in particular by providing direct access from Harris Street to Alumni Green and by reducing pedestrian congestion at the corner of Harris Street and Broadway by providing a porous façade and generous pedestrian circulation on the ground floor. Further possibilities to dedicate a traffic lane on Harris Street to pedestrians will be explored.
- Infrastructure and services: a future building is capable of being serviced by available utility providers.

Therefore in summary, the proposal does not give rise to any environmental impact that is not capable of being appropriately mitigated.

Suitability of the Site

The site is suitable for the proposed development for the following reasons:

- it is located within and contributes to the identified Innovation Corridor under the District Plans;
- it is an existing educational facility with a proven history of delivering buildings of high design excellence and functionality to improve the teaching and learning outcomes of its students and staff;
- it has excellent access to public transport, including being within 250m of Central Station; and
- an assessment of environmental impacts of the proposal indicates that the proposal does not give rise to any environmental impact that is not capable of being appropriately mitigated.

The Public Interest

The proposed modification is within the public interest, as it will:

- increase the quantum of open space to be made available within a very dense urban fabric;
- ensure the ongoing protection of heritage assets on site;
- address safety concerns involving pedestrian congestion near the intersection of Harris Street and Broadway;
- improve the pedestrian experience along Harris Street;

- improve connectivity and pedestrian permeability throughout the UTS campus, in particular by providing new points of access between Harris Street and Alumni Green; and
- increase the capacity of UTS to continue to provide world class tertiary education to domestic and international students, therefore increasing the capability and attraction of Sydney as a global city.

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