

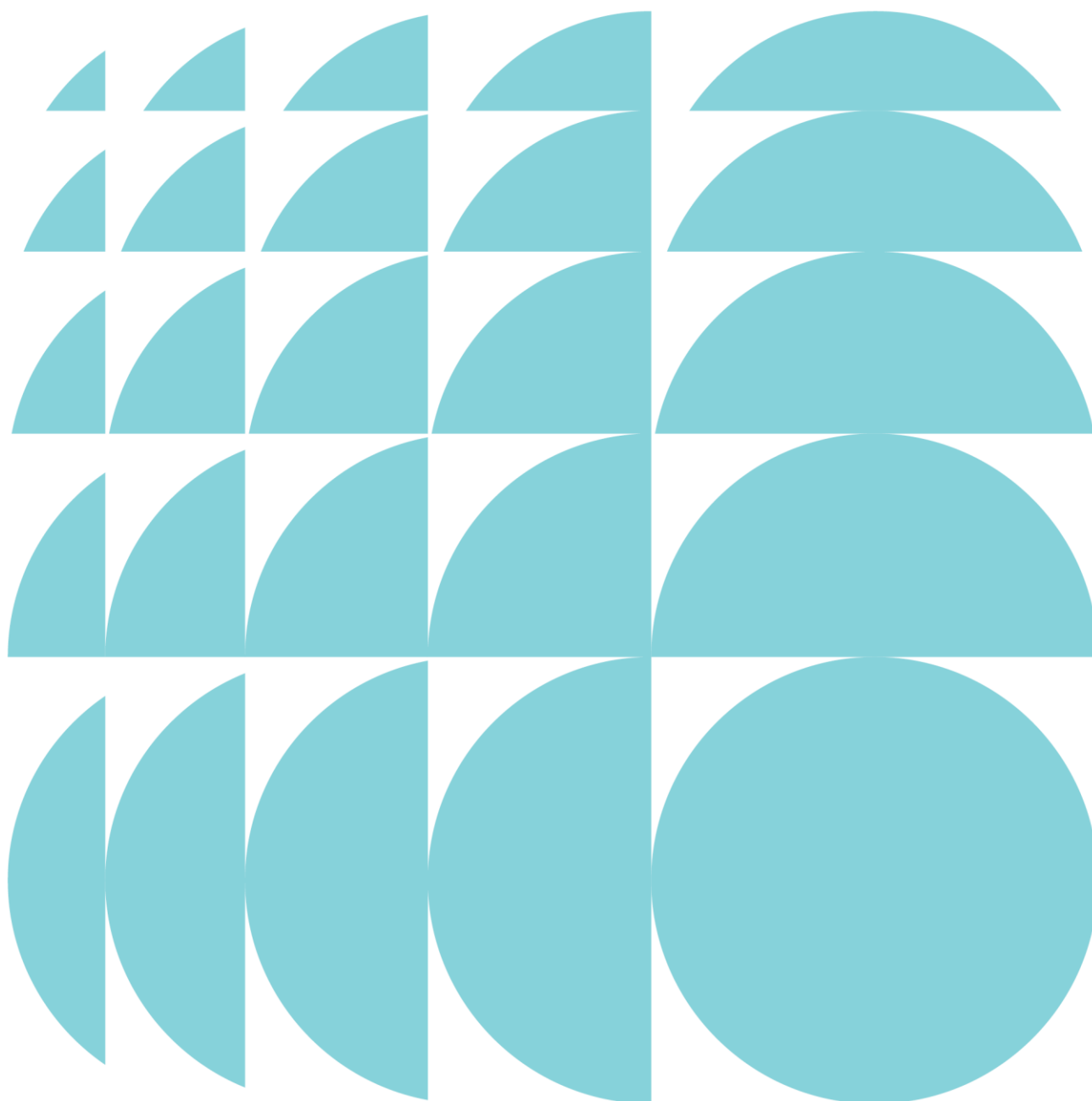
# ETHOS URBAN

## Section 75W to Concept Plan (MP06\_0016)

Macquarie University  
Amendments to GFA, GFA Distribution and  
Translation of LEP Standards

Submitted to Department of Planning and  
Environment  
On behalf of Macquarie University

November 2017 | 11230



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**VERSION NO. 1**

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# Contents

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<b>1.0</b>	<b>Introduction</b>	<b>4</b>
<b>2.0</b>	<b>Background</b>	<b>6</b>
2.1	Site Location and Context	6
2.2	Concept Plan Approval	6
2.3	Herring Road Priority Precinct and Repeal of State Significant Site Listing	9
2.4	Evolution of Concept Plan	11
2.5	Numerical Overview	13
2.6	Consultation	15

---

<b>3.0</b>	<b>Assessment of Environmental Impacts</b>	<b>16</b>
3.1	Modifications to the Herring Road Frontage (part Precincts E and D)	16
3.2	Increase to Academic GFA	20
3.3	Removal of Precinct-by-Precinct GFA Restrictions	21
3.4	Modifications to Condition C15	21
3.5	Proposed Modifications to the Design Excellence Strategy and Urban Design Guidelines	24
3.6	Proposed Modifications to the Approval	25
3.7	Proposed Modifications to the Statement of Commitments	31

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<b>4.0</b>	<b>Strategic Justification</b>	<b>39</b>
4.1	NSW State Priorities	39
4.2	NSW Tertiary Education Plan	39
4.3	A Plan for Growing Sydney	40
4.4	Revised Draft North District Plan	42
4.5	Macquarie Park Innovation District	43
4.6	Summary of Strategic Justification	44

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<b>5.0</b>	<b>Environmental Assessment</b>	<b>45</b>
5.1	Consistency with Concept Plan Objectives	45
5.2	Urban Design and Built Form	45
5.3	Overshadowing and Solar Access	48
5.4	Traffic, Transport and Access	49
5.5	Stormwater and Flooding	50
5.6	Utilities and Infrastructure	52
5.7	Social and Economic Impacts	52

# Contents

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## 6.0 Conclusion 53

### Figures

Figure 1 – Macquarie University Concept Plan precincts	7
Figure 2 – The Hearing Hub	12
Figure 3 – Height Map Extract – Ryde LEP 2014 overlay with MU development lot references	18
Figure 4 – FSR Map extract - Ryde LEP 2014 overlay with MU development lot references	18
Figure 5 – Lot reference diagram prepared during Priority Precinct discussions	20
Figure 6 – Proportion of 25 to 34 year olds with a bachelor degree or higher (trend and 2025 target)	40
Figure 7 – The Global Economic Corridor	42
Figure 8 – Sketch of the approved MU CP massing (looking north-west towards the Macquarie University train station)	47
Figure 9 – Photomontage of the LEP 2014 massing looking north-west towards the Macquarie University train station	47
Figure 10 – Urban Design Guidelines for development Lot A19, showing the overshadowing control	48
Figure 11 – 100-year-flood modelling results in University Creek	51
Figure 12 – Extract from Bewsher's report – 100 year flood modelling results in Mars Creek	51

### Tables

Table 1 – The maximum approved GFA for each precinct	7
Table 2 – Review of key Concept Plan conditions	8
Table 3 – Proposed height and FSR / GFA changes for key Herring Road sites	17
Table 4 – Lot E11 (2 University Avenue) area calculations	19
Table 5 - Area and EFTSL projections	23

# Contents

## Appendices

- A** Updated Design Excellence Strategy and Urban Design Guidelines  
*Macquarie University*
  
- B** Traffic and Parking Statement  
*ARUP*

## 1.0 Introduction

This Environmental Assessment Report (EAR) for modifications to the approved Concept Plan for the Macquarie University Campus is submitted to the Minister for Planning and Environment in accordance with Section 75W and Clause 3C of Schedule 6 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Macquarie University Concept Plan (MU CP) was approved by the then Minister for Planning on 13 August 2009 (MP06\_0016) to support development on the Campus for the next 25 years (from 2006, when the Concept Plan was lodged). The approved MU CP gave consent for:

- The provision of an additional 400,000m<sup>2</sup><sup>1</sup> of commercial gross floor area (GFA) and associated parking outside of the Academic Core;
- The provision of an additional 61,200m<sup>2</sup> of academic GFA within the Academic Core;
- The provision of an additional 3,450 beds within the University Housing Precincts for University purposes only;
- Infrastructure upgrades and improvements to the road network as required; and
- Rationalisation of University car parking locations.

This report has been prepared by Ethos Urban (formerly JBA) on behalf of the proponent, Macquarie University (MU). The report describes the proposed modifications, outlines the purpose of the modifications and provides an assessment of the potential environmental impacts. This report should be read in conjunction with the updated Design Excellence Strategy and Urban Design Guidelines prepared by Macquarie University (refer to **Appendix A**) and supporting technical documents provided by the expert consult team.

In summary, this Section 75W application seeks the following modifications to the MU CP approval:

- Increased height and floor space ratio (FSR) / gross floor area (GFA) controls along the Campus' Herring Road frontage (part Precincts E and D) to align with the recent changes to *Ryde Local Environmental Plan 2014* (Ryde LEP 2014);
- An increase to the permissible additional academic (and support) GFA by 95,800m<sup>2</sup> to a total of 157,000m<sup>2</sup> across the Campus;
- An increase to the maximum permissible GFA in Precinct D (Macquarie University Research Park) by 35,000m<sup>2</sup> to a total of 171,000m<sup>2</sup>;
- Partial removal of the precinct-by-precinct GFA limitations to provide greater flexibility to locate floor space across the Campus;
- Extension of the timeframe of the Concept Plan by 5 years to 2036;
- An increase in the anticipated number of students;

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<sup>1</sup> The 400,000m<sup>2</sup> reflected in the development description (Condition A1) is for Precincts E and F only, and excludes the maximum cumulative GFA cap of 136,000m<sup>2</sup> permissible in Precinct D

- An amendment to Condition C15 to enable separate agreements to be entered into with City of Ryde Council for construction of the missing cycleway connection / Shared Use Path, and the Minister for the remaining intersection upgrades; and
- Consequential amendments to the Design Excellence Strategy and Urban Design Guidelines and Statement of Commitments.

Importantly, the proposed modification does not seek to change the quantum of commercial floor space approved on the Campus and so does not require modification to the executed VPA with City of Ryde Council. Similarly, no changes are proposed to the precinct based parking caps or the total amount of parking that has been approved on the Campus under the Concept Plan.

As discussed throughout this report, the modifications are not driven solely by an increase in student numbers. Rather, the modifications are largely due to changes in the University's teaching offering and changing expectations around space allocations per student since the MU CP was determined in 2009.

As identified in this assessment, the proposed modifications respond to a number of key strategic initiatives for NSW, Sydney and Macquarie Park. The modifications will:

- Reinforce the University's role within the Macquarie Park strategic centre by providing world class teaching, learning and research facilities.
- Contribute to the delivery of a vibrant and liveable precinct through integrating land use planning with transport infrastructure. The provision of additional capacity at MU will provide improved education facilities in such a highly accessible location, contributing to making Sydney connected through reducing travel times, growing patronage on public transport and providing people with easy access to alternative modes of transport.
- Contribute to providing additional capacity within the tertiary education sector.
- Contribute to providing new employment to meet the State Government's new jobs target, which requires over 34,000 new jobs to be created every year.
- Facilitate the ongoing development of Macquarie Park as one of Sydney's leading districts for innovation and research.

## 2.0 Background

### 2.1 Site Location and Context

MU occupies approximately one third of the Macquarie Park Corridor. At the time the Concept Plan was initiated, Macquarie Park had been identified as part of the Global Economic Corridor under the NSW Government's Metropolitan Strategy for Sydney titled *City of Cities – A Plan for Sydney's Future*. The MU rail station, which forms part of the Epping to Chatswood rail line, had also recently been completed.

Recognising that the new rail line would improve accessibility to the Macquarie Park Corridor and the University, the State Government, through the Department of Planning (the Department) and City of Ryde Council (Council), undertook a series of studies in 2002 / 2003 including the Macquarie Park Structure Plan and the Transport Management and Accessibility Plan (TMAP).

One of the outcomes of this exercise was the preparation of the Macquarie Park Corridor Masterplan which was subsequently adopted by Council, on 17 February 2004. On 20 January 2006, *Ryde Planning Scheme Ordinance 1979* (RPSO) was amended by *Local Environmental Plan No. 137* (LEP 137) in order to implement the recommendations of the Macquarie Park Corridor Masterplan. LEP 137 rezoned a small portion of land on the MU Campus to allow for commercial uses.

Since the University's inception in 1964, a Development Plan had been in place to guide the growth of the University. In late 2002, in response to the growth of the Macquarie Park Corridor and the foreshadowed development of a new rail station on Campus, MU commenced a review of the 1997 Development Plan prepared by Conybeare Morrison. This resulted in the comprehensive Macquarie University Campus Development Plan 2004 (CDP) prepared by CRI/Cox.

The CDP identified opportunities to guide the future growth of the University and formed the basis of the Concept Plan, which supported a specific MU planning instrument to allow implementation of the development potential identified in the CDP.

In September 2005, MU wrote to the Minister for Planning (the Minister) requesting consideration of the MU Campus to be included in Schedule 3 of the then *State Environmental Planning Policy (Major Projects) 2005* (now referred to as the State Significant Precincts SEPP) as a State Significant Site (SSS). In January 2006, the Department advised the University that the Minister agreed to consider the site as a potential SSS, requesting that a Concept Plan be prepared for the Campus.

### 2.2 Concept Plan Approval

On 13 August 2009 a critical step in realising the University's vision and identity for the Campus was realised, with approval of the MU CP. The gazettal of the SSS listing followed on 11 September 2009.

The Concept Plan includes:

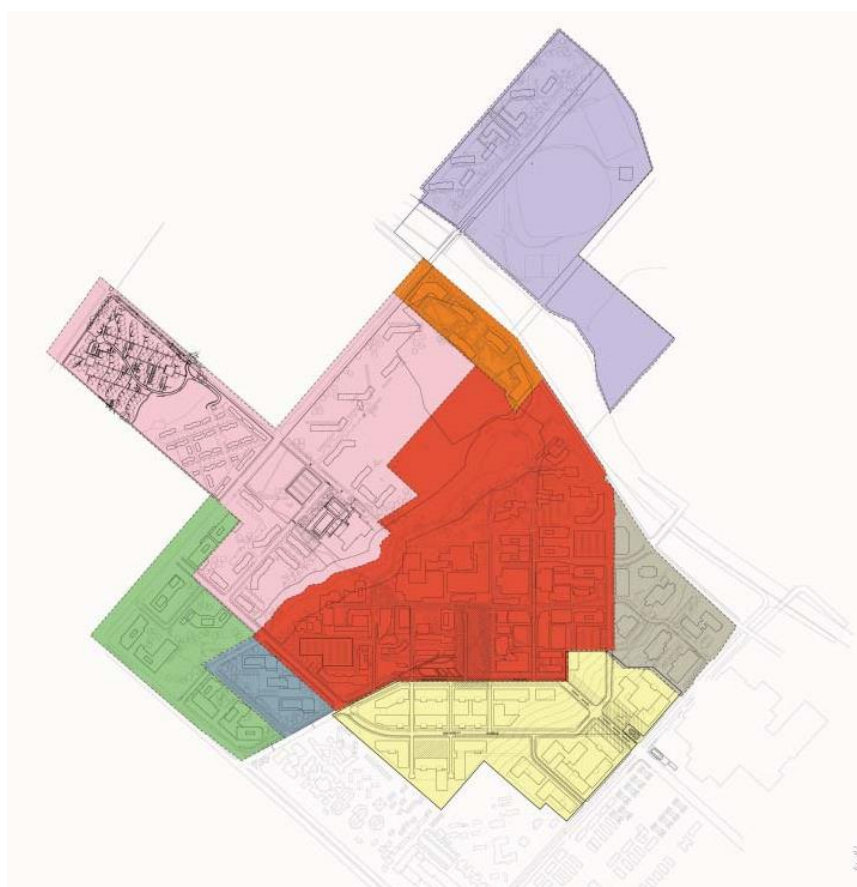
- The provision of an additional 400,000m<sup>2</sup> of commercial GFA and associated parking outside of the Academic Core;
- The provision of an additional 61,200m<sup>2</sup> of academic GFA within the Academic Core;

- The provision of an additional 3,450 beds within the University Housing Precincts for University purposes only;
- Infrastructure upgrades and improvements to the road network as required; and
- Rationalisation of University car parking locations.

Under Condition A3 of the approved Concept Plan, maximum GFA limits have also been specified for various sites and precincts. It should be noted that the additional 400,000m<sup>2</sup> of commercial GFA is the sum of Precincts E and F only and excludes the maximum cumulative GFA cap of 136,000m<sup>2</sup> for Precinct D. The eight precincts are shown in **Figure 1**.

**Table 1 – The maximum approved GFA for each precinct**

Precinct	Maximum Gross Floor Area (GFA)
Precinct D	136,000m <sup>2</sup>
Precinct E (Station North)	90,000m <sup>2</sup>
Precinct E (Station South)	85,000m <sup>2</sup>
Precinct E (Triangle South of University Avenue)	155,000m <sup>2</sup>
Precinct F	70,000m <sup>2</sup>
Academic Core	61,200m <sup>2</sup>



**Figure 1 – Macquarie University Concept Plan precincts**

## 2.2.1 Concept Plan Conditions of Consent

In addition to the above, the Concept Plan approval contains a number of conditions, several of which have now been satisfied, as outlined in **Table 2** below. The University is continuing to resolve those conditions which still need to be satisfied.

**Table 2 – Review of key Concept Plan conditions**

Condition	Resolution
A4 Consolidated Concept Plan	Resolved in February 2011. An updated consolidated Concept Plan will be prepared following determination of this modification to ensure that the proposed changes are reflected in the Concept Plan document.
A7 Lapsing of Approval	Consent preserved by virtue of the Hearing Hub approval (MP10_0032).
B1 Car parking	Ongoing condition. No change proposed to parking as part of this modification application.
B2 Transport and Pedestrian Management	A travel survey was completed in 2015. The 40% non-car mode share target has been exceeded.
B3 Road Works	The approval requires the upgrade of six (6) intersections. However, RMS has subsequently advised that only two (2) intersections now require upgrading. These works are now the subject of a VPA between the Department (on behalf of RMS) and the University. The terms of the VPA have now been agreed, and the VPA is currently being drafted.
B4 Design Excellence and Urban Design Guidelines	Guidelines were prepared for Precinct E in 2010, and are now subject to review as part of this modification application. The Guidelines for the remainder of the Campus (with the exception of Precincts E and D which were subject to the Priority Precinct process) were submitted to the Department in August 2015. The University understands that sign-off of these Guidelines is pending resolution of RMS's bus priority setback requirements.
B5 Setbacks	The requirement to provide setbacks along Balaclava Road (from Epping Road to University Avenue) and Waterloo Road (from Herring Road to Research Park Drive) to facilitate additional capacity improvements and bus priority is subject to ongoing discussions with RMS, TfNSW and Council. The University maintains that no setbacks are required, and is working with RMS, TfNSW and Council to reach resolution on this matter. Once resolved, a modification application will be submitted to amend the wording of Condition B5.
C2 Urban Design Details	These requirements will be addressed as part of the future development application for development north of Macquarie University Station. The setback requirements of Condition C2 are reflected in the updated Urban Design Guidelines at <b>Appendix A</b> .
C3 Landscaping	A Landscape Management Plan has been prepared for the Campus, and was submitted to the Department with the Campus-wide Design Excellence Strategy and Urban Design Guidelines in August 2015.
C4 Riparian Zone, Flooding and Stormwater	A Stormwater Management Plan has been prepared for the Campus, and was submitted to the Department with the Campus-wide Design Excellence Strategy and Urban Design Guidelines in August 2015.
C5 Bushfire Protection	A Bushfire Management Plan has been prepared for the Campus.
C6 Flora and Fauna	A Vegetation Management Plan, Threatened Species Plan and Weed Management Plan have been prepared for the Campus, and were submitted to the Department with the Campus-wide Design Excellence Strategy and Urban Design Guidelines in August 2016.

C7 ESD	Ongoing, with each application for new building work.
C8 Environmental Management and Contamination	Ongoing, with each application for new building work.
C9 Heritage / Archaeology	Resolved in December 2012.
C10 Access, Transport and Parking	A draft University Travel Plan has been prepared, and is subject to finalisation in consultation with Council. The micro-simulation model was completed in 2011 and has been subject to protracted discussions with Council and RMS. The University understands that this requirement is now nearing resolution.
C11 Childcare Strategy	Resolved in December 2012.
C12 Transitional matters	Satisfaction of this condition is subject to future development at Cochlear.
C13 Construction Staging	Ongoing, with each application for new building work.
C14 Utilities	Provided as part of the Design Excellence Strategy and Urban Design Guidelines for each precinct, and as part of each application for new building work.
C15 Agency and Council agreements	The agreement with Council (Condition C15(5)) was executed in February 2013. Resolution of Conditions C15(1)-(4) is subject to ongoing discussions with the Department, RMS and Council. As part of this modification, it is proposed to amend Condition C15 to enable the University to enter into a separate VPA with Council for the cycleway / shared use path rather than RMS as originally intended. Refer to further discussion at Section 3.4.

As noted above, in accordance with the requirements of Concept Plan Condition C15(5), a VPA was executed between MU and Council in February 2013. It is important to note that the currently in-force VPA does not require amendment, as this application does not propose any changes to the approved quantum of commercial floorspace.

### 2.2.2 Concept Plan Modifications

The Macquarie University Concept Plan has not previously been modified. It is anticipated that a further modification will be submitted to amend the wording of Condition B5 once a resolution has been reached around the bus priority setbacks.

## 2.3 Herring Road Priority Precinct and Repeal of State Significant Site Listing

The aim of the NSW government's Priority Precinct initiative is to deliver more homes in places with access to infrastructure, transport, services and jobs. In mid-2014, the Department publicly exhibited the *Herring Road, Macquarie Park – Urban Activation Precinct* (now referred to as a Priority Precinct). Herring Road was chosen as a Priority Precinct to accommodate some of Sydney's future growth as it is:

Strategically located close to the geographic centre of the Sydney metropolitan region;

- A key part of Sydney's Global Economic Corridor;

- An important part of the Macquarie Park Specialised Precinct, identified in the Metropolitan Strategy for Sydney as a location for future jobs and housing growth;
- Well serviced by public transport including the Macquarie University train station and bus interchange; and
- Contains a number of large landholdings that provide opportunities for redevelopment.

The Priority Precinct, which was gazetted in October 2015, provides for the renewal and revitalisation of the Herring Road precinct to enhance its role as a specialised centre. The gazetted Priority Precinct provides for:

- A mix of land uses to transform the precinct into an active place for living and working;
- A quality higher density urban community that utilises excellent transport infrastructure and access to job markets, educational facilities, retail, local services and recreational assets;
- Increased building heights and densities that can improve housing supply and choice;
- A transformation of Herring Road into an active street, with wider pavements, new landscaping and new places to meet;
- Better connected and finer-grained streets and pedestrian / cycle and networks provide safer, more convenient and pleasant access; and
- Opportunities for new and improved parks, spaces, playgrounds and community facilities.

Of particular note, the Priority Precinct has facilitated the following changes to the University's Herring Road frontage (part Precincts E and D), which were introduced into Ryde LEP 2014 in October 2015:

- Uplift in height along the Campus' Herring Road frontage with heights ranging from 45 – 120m;
- Uplift in FSRs along the Campus' Herring Road frontage with FSRs ranging from 2.5:1 – 6:1; and
- Rezoning of the majority of the Campus from SP2 Infrastructure to B4 Mixed Use in recognition of the changing nature of university campuses as dynamic mixed use precincts, the philosophy of combining academic and non-academic uses and to provide flexibility to accommodate a range of uses, where opportunities arise.

When these amended controls were inserted into Ryde LEP 2014, the University's SSS listing was repealed. As a result, the Macquarie University Campus is no longer a SSS under current legislation.

Whilst the SSS listing no longer applies, the MU CP continues to apply. The approved Concept Plan, by virtue of Clause 3B(2)(f) of Schedule 6A - Transitional arrangements—repeal of Part 3A under the EP&A Act, will continue to have effect and apply despite any provisions in either any environmental planning instrument (SEPPs, LEPs) or a DCP.

Ryde LEP 2014 now has higher height and density controls compared to those in the MU CP. In part, this modification seeks to translate the height and FSR uplift afforded by the Priority Precinct into the Concept Plan in order to re-establish the hierarchy of planning instruments applying to the Campus.

## 2.4 Evolution of Concept Plan

### 2.4.1 Campus Master Plan 2014

Together with the changes that have been occurring in the Macquarie Park Corridor as part of the State lead Priority Precinct process, in March 2014, the MU Council approved and adopted the Macquarie University Campus Master Plan 2014 (the Master Plan).

The review of the Master Plan was driven by the 2013 strategy 'Our University – A Framing of Futures' and the significant growth on the Campus since 2004. Ongoing changes in teaching methodologies, new course opportunities at Macquarie, a desire to increase industry engagement and the potential for commercial opportunities on the Campus were also key considerations.

The Master Plan sets out an updated physical framework to accommodate the University's predicted needs, while ensuring flexibility into the future and enhancing the existing qualities of the University's Campus.

The Master Plan acknowledges that change will be continuous and that new directions will evolve as the University grows, and identifies a strong but flexible framework for growth. It also identifies a series of initiatives aimed at improving the amenity of the Campus, while identifying over time how sites can be developed to their full potential and how future growth can be accommodated. Specifically, the Master Plan seeks to:

- Express the University's identity;
- Reinforce the sense of arrival, place and public domain;
- Create flexibility to adapt to new academic activities and approaches to learning as they emerge;
- Facilitate engagement with industry and business and optimise opportunities for commercial development;
- Create a framework to maximise commercial value and ongoing economic viability of Campus buildings;
- Identify areas of potential growth across all areas of the Campus;
- Provide a framework to attract and retain the best students, researchers, staff and commercial partners;
- Build on Macquarie University's sense of history and place;
- Provide a clear structure that appropriately respects and builds on the original 1964 Master Plan and enhance essential elements of the landscape and buildings on the Campus;
- Build on the public domain legacy of the original Master Plan - Mars Creek, University Creek, Wally's Walk and the Central Courtyard;
- Introduce distinctive new spaces within the Campus in anticipation of a growing population with a diverse and complex range of activities;
- Accommodate new student housing options on Campus; and
- Create a framework for optimising commercial value and ongoing economic viability of the Campus buildings.

Importantly, the Master Plan does not represent a significant change to the development potential achieved by the approved Concept Plan. However, it does extend the duration of the Concept Plan to cater for growth to 2064, rather than proposing growth within the Concept Plan's timeframe. The Master Plan is available for viewing on the University's website ([https://www.mq.edu.au/about\\_us/campus\\_master\\_plan/master\\_plan\\_2014/](https://www.mq.edu.au/about_us/campus_master_plan/master_plan_2014/)).

## 2.4.2 Existing and Planned Development

Since approval of the Concept Plan in 2009, the University has undertaken significant public domain and road works, as well as creek rehabilitation works and alterations and additions to existing buildings across the Campus. It is noted that the only significant new building to have been delivered under the Concept Plan has been the Australian Hearing Hub (MP10\_0032) in Precinct E. The Hearing Hub was completed in December 2012 (refer to **Figure 2**).

Other recent developments on the Campus, including the Library and Cochlear Global Headquarters, have been completed since approval of the Concept Plan, however were not approved under the Concept Plan.



**Figure 2 – The Hearing Hub**

Whilst there has been limited development of new buildings on the Campus since the Concept Plan was approved, the University recognises the need to continue to develop and improve its facilities. The University has a strong development pipeline, with the following projects all in varying stages of the design and planning process. It is anticipated that all of these projects will be delivered in the next five to 10 years:

- **2 University Avenue** – a mixed use academic, commercial and hotel development with a total GFA of up to 128,000m<sup>2</sup> at 2 University Avenue, within Precinct A.
- **8 and 10 University Avenue** - two commercial buildings, each with a height of 7 storeys and a GFA of approximately 45,000m<sup>2</sup>.
- **Biological Science Building** – a research facility located in Precinct B with a GFA of 3,035m<sup>2</sup> (approved by the Sydney North Planning Panel in May 2017).

- **Central Courtyard Redevelopment** – comprehensive redevelopment of the Central Courtyard precinct (Precinct A) for academic, student support and student accommodation uses (approximately 14,000m<sup>2</sup> of additional academic GFA and approximately 1,000 student beds).
- **Law School Redevelopment** – comprehensive refurbishment of Building C5C (Precinct A) to accommodate the MU Law School, with an additional GFA of approximately 8,000m<sup>2</sup>.
- **Engineering Precinct Redevelopment** – Redevelopment of the rear of Building E6 (Precinct A) to accommodate the Engineering and Physics and Astronomy Departments. The proposed development has a height of 8 storeys, and will accommodate approximately 15,000m<sup>2</sup> of GFA.
- **Analytics, Science, and Medicine Facility (ASMF)**: New development along Science Road and Research Park Drive (Precinct A) to accommodate various lab typologies with a focus on accommodating research activities. The proposal will be developed across two stages, and will accommodate 45,000m<sup>2</sup> of additional GFA.
- **Medical Teaching Facility**: New teaching facility for the Faculty of Medicine and Health Sciences with a GFA of approximately 3,400m<sup>2</sup> (Precinct A).
- **Macquarie University International College (MUIC)**: Redevelopment of the existing MUIC buildings with an additional GFA of approximately 1,000m<sup>2</sup>.

Together, the currently planned developments will accommodate approximately 89,435m<sup>2</sup> of additional academic floor space (predominantly in Precinct A), 173,000m<sup>2</sup> of new commercial floor space and approximately 1,000 student beds.

Under the recently exhibited Amendments to the EP&A Act, the current ability to modify a Concept Plan under Section 75w of the Act (in accordance with Clause 3C of Schedule 6A - Transitional arrangements—repeal of Part 3A) will be repealed and any future modification application would be subject to the SDD / SSI provisions of the Act (i.e. Section 96). Section 96 applies a more stringent test, requiring development to be 'substantially the same' as the development originally approved, which raises implications for the modification of Concept Plans.

In light of the above, MU is looking to modify the Concept Plan approval to enable the realisation of future, planned growth and development. The quantum of floor space is sought so that the University can better consider its future options to deliver quality education, and accommodate academic and related growth with the flexibility to respond to a changing external environment.

Since 2009, the University has been implementing a program of public domain and road works to facilitate new development on the Campus. As outlined above, the University is now set to deliver significant new development in the short to medium term, and the proposed modifications will enable this to occur.

## 2.5 Numerical Overview

As outlined in Section 2.3, a key driver for the proposed modification is to align the MU CP approval with recent changes to Ryde LEP 2014 in order to re-establish the hierarchy of planning instruments applying to the Campus. In addition, the modification seeks to increase academic GFA and remove the prescriptive breakdown of GFA on a precinct-by-precinct basis. It also seeks to extend the Concept Plan timeframe to 2036.

The MU CP was based on providing facilities for a student load of 42,000 and an EFTSL<sup>2</sup> of 25,200 on the Campus by 2031. The University has now surpassed these figures, with a student load of 28,913 EFTSL in 2016. The current projection to 2036 is 39,776 EFTSL. Whilst this is more than the Concept Plan projection of 25,200 by 2031, the increase in academic floor space is largely driven by changes to space requirements and course offerings.

Since 2009, benchmarking around space for each student has changed, and whilst the area / EFTSL was once benchmarked at 8.5m<sup>2</sup> / EFTSL, the Tertiary Education Facilities Management Association (TEFMA) broad planning guideline is now 14 – 15m<sup>2</sup> / EFTSL. This demonstrates that to maintain an adequate allocation of space per student, additional academic floor area is required on the MU Campus. MU has historically had a high percentage of space-efficient courses, and so has traditionally had a relatively low average GFA per student (7.6m<sup>2</sup> / EFTSL in 2011). However, since the Concept Plan was prepared, the University has established the Faculty of Medicine and Health Science and has continued to grow the Faculty of Science and Engineering. Both of these faculties offer courses which require significant additional teaching and learning space compared to other faculties, which is putting increased demand on academic floorspace.

Based on the above, the proposed modification and increased demand for academic floor space is based on a review of the following matters:

- Analysis of GFA across the Campus and a review of changes in GFA since 2009;
- Identification of uses – academic, commercial and other support spaces;
- An estimation of GFA per faculty;
- Reconciliation of existing students and GFA;
- Forecast of students to 2036; and
- Review of new benchmark areas / EFTSL to confirm 2036 academic GFA.

Whilst Macquarie University is yet to realise the development potential afforded by the 2009 Concept Plan approval, based on the current pipeline for academic development and a review of the above factors, it has been identified that the currently approved GFA cap of 61,200m<sup>2</sup> for academic uses within the Academic Core is insufficient, and will soon be exceeded. Further, this figure did not contemplate academic support spaces such as shared administration spaces and offices, food and beverage outlets, common lecture theatres and classrooms. As a result, the University proposes to increase the total quantum of academic floor space (including support space) to 157,000m<sup>2</sup>, representing an increase of 95,800m<sup>2</sup>.

Further, since the Concept Plan was approved, the way in which universities operate has continued to change. Whereas it was once desirable to separate university-related uses from other uses, there is now a strong desire to collocate university uses with commercial, research, residential, retail and support functions. This is reflected in the recent change to the zoning of the Campus, which was implemented to enable MU to evolve into a more integrated development model and to enable closer synergies between education, research and commercial activities. In turn, this more integrated approach can support the continued economic growth of the precinct and Macquarie Park corridor. As a result of this new approach, it is also proposed to partially move away from the precinct-by-precinct break down of floor space and use, to a more flexible cap arrangement which better responds to the dynamic and opportunistic nature of university development.

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<sup>2</sup> Equivalent full time student load

As outlined in Section 2.3, the proposed modification also seeks to align the Concept Plan with the uplift in height and FSR afforded by the Priority Precinct, and to re-establish the hierarchy of documents. Whilst additional height and FSR is now envisaged along the University's Herring Road frontage (part Precincts E and D), as noted above, there will be no increase to the overall quantum of commercial floor space approved under the MU CP.

Finally, the extension of the Concept Plan to 2036 would allow the University another 20 years to deliver the MU CP. It is considered that the 15 years that remains to deliver the Concept Plan is insufficient and the proposed 20 year timeframe aligns with the Greater Sydney Commission's timeframes for realising the vision for the North District.

## **2.6 Consultation**

High level consultation has been undertaken with both City of Ryde Council and the Department of Planning and Environment during preparation of this Modification Application. Consultation has also been carried out with both parties during preparation of the Campus-wide Design Excellence Strategy and Urban Design Guidelines.

Whilst the University has not undertaken community consultation specific to the proposed modification, the Department of Planning and Environment carried out significant consultation as part of the Herring Road Priority Precinct process.

## 3.0 Assessment of Environmental Impacts

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

- Increased height and floor space ratio (FSR) / gross floor area (GFA) controls along the Campus' Herring Road frontage (part Precincts E and D) to align with the recent changes to *Ryde Local Environmental Plan 2014* (Ryde LEP 2014);
- An increase to the permissible additional academic (and support) GFA by 95,800m<sup>2</sup> to a total of 157,000m<sup>2</sup> across the Campus;
- An increase to the maximum permissible GFA in Precinct D (Macquarie University Research Park) by 35,000m<sup>2</sup> to a total of 171,000m<sup>2</sup>;
- Partial removal of the precinct-by-precinct GFA limitations to provide greater flexibility to locate floor space across the Campus;
- Extension of the timeframe of the Concept Plan by 5 years to 2036;
- An increase in the anticipated number of students;
- An amendment to Condition C15 to enable separate agreements to be entered into with City of Ryde Council for construction of the missing cycleway connection / Shared Use Path, and the Minister for the remaining intersection upgrades; and
- Consequential amendments to the Design Excellence Strategy and Urban Design Guidelines and Statement of Commitments.

Importantly, the proposed modification does not seek to change the quantum of commercial floor space approved on the Campus. Similarly, no changes are proposed to the precinct based parking caps or the total amount of parking that has been approved on the Campus under the Concept Plan. Given that no changes are proposed to the approved quantum of commercial floor space, no changes are required to the executed VPA.

Revised Design Excellence Strategy and Urban Design Guidelines for the relevant parts of Precincts E and D, prepared by Macquarie University, are provided at **Appendix A**. The key components of the proposed modification are discussed further below.

### 3.1 Modifications to the Herring Road Frontage (part Precincts E and D)

As noted above, the changes to the University's Herring Road frontage are required to reflect the recent changes made under the Priority Precinct process, which are now contained in Ryde LEP 2014 (refer to **Figures 3** and **4**). The proposed changes to the height and FSR for key sites along Herring Road are outlined in **Table 3**.

To align with the terms of the current MU CP approval, the FSR standards which apply to these sites under Ryde LEP 2014 have been converted to GFA figures.

Whilst the principle of the modification is to move away from site and precinct specific GFA limits, it is recognised that greater certainty is required for some sites. The inclusion of maximum GFA figures for the relevant sites will also provide greater clarity for the University, particularly given

that there are some discrepancies between the LEP’s somewhat arbitrary FSR boundaries and the University’s development lot boundaries. Notwithstanding this, the GFA controls are expressed as maximum figures to provide the flexibility to redistribute the total floor space across the Campus, allowing the University to respond to opportunities as they arise. This approach is consistent with the intent of the original Concept Plan.

The University also proposes to increase the total quantum of floorspace permissible under the cap for Precinct D from 136,000m<sup>2</sup> to 171,000m<sup>2</sup> (an increase of 35,000m<sup>2</sup>). Under the MU CP, the GFA for Precinct D is expressed as a cumulative GFA cap, rather than an additional allowance. This was on the basis that no significant new development was proposed in Precinct D. Whilst this is still the University’s intention, the uplift in height and FSR afforded by the Priority Precinct has provided for 97,403m<sup>2</sup> of GFA on development lots D01, D02 and D03 which, if realised together with other development in this Precinct, would take Precinct D over the current GFA cap. Precinct D is identified as the research park, and additional development in this Precinct will not necessarily result in an increase to commercial floor space on the Campus.

The development controls established in the Design Excellence Strategy and Urban Design Guidelines are capable of accommodating the maximum GFA for these sites (refer to **Appendix A** and Section 3.4).

**Table 3 – Proposed height and FSR / GFA changes for key Herring Road sites**


Site	Existing MU CP Height	Proposed Height	Existing MU CP GFA	Proposed FSR / GFA (maximum)
E09	16 – 24m	45m	85,000m <sup>2</sup>	3.5:1 / 48,290m <sup>2</sup>
E10 (Station South)	44 – 108m	45 – 120m		3.5:1 / 82,290m <sup>2</sup>
E11 (Station North)	72 – 92m	45 – 120m	90,000m <sup>2</sup>	3:1 - 6:1 / 128,000m <sup>2</sup> **
D01	36m	45m	Part of cumulative cap of 136,000m <sup>2</sup> for Precinct D	3:1 / 15,245m <sup>2</sup>
D02	36m	45m		2.5:1 / 18,294m <sup>2</sup>
D03	36m	90m		4.5:1 / 63,864m <sup>2</sup>

\*\*Further discussion regarding the calculation of floor space for Site E11 is provided at Section 3.1.1 below.

Height of Buildings Map - Sheet HOB\_004

**Maximum Building Height (m)**

J	9.5	T1	26
K	10	T2	27.5
L	11.5	U1	30
M1	12	U2	30.5
M2	12.5	U3	33
N1	13	U4	33.5
N2	14	V	37
O1	15	W	44.5
O2	15.5	X	45
O3	16	Z	57
P	18.5	AA1	65
Q	19	AA2	75
R1	21.5	AB1	90
R2	22	AB2	92
S1	23	AB3	99
S2	24	AC	120

 Refer to Clause 4.3A(1)

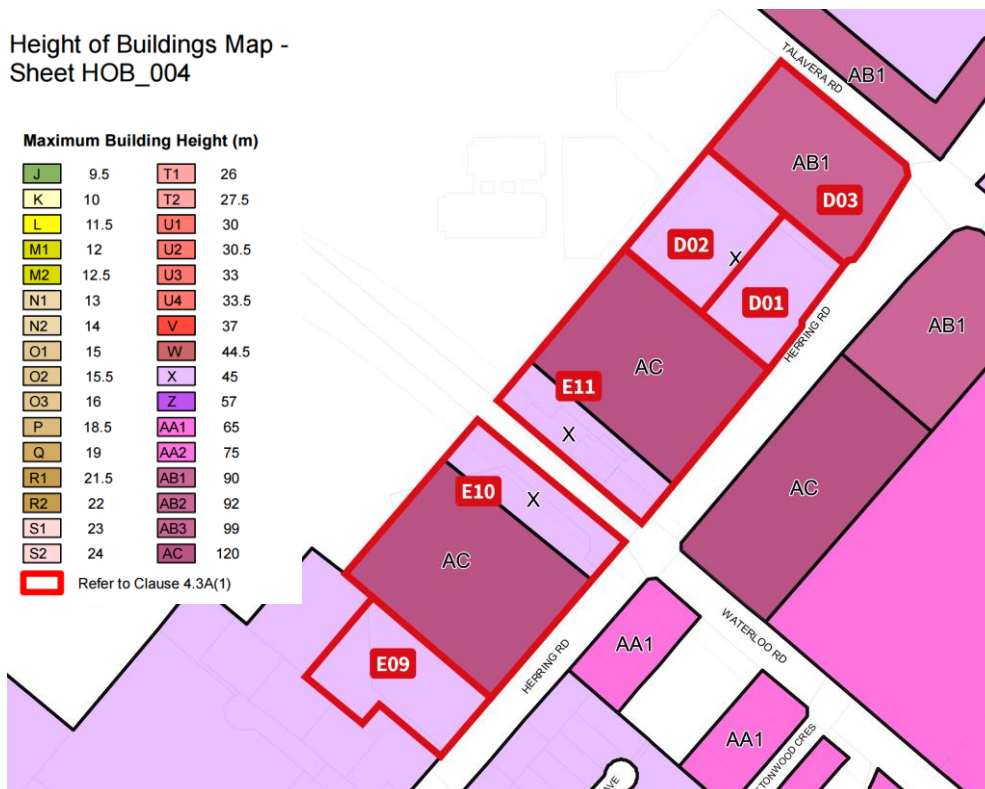


Figure 3 – Height Map Extract – Ryde LEP 2014 overlay with MU development lot references

Floor Space Ratio Map - Sheet FSR\_004

**Maximum Floor Space Ratio (n:1)**

A1	0.30	T1	2.00
A2	0.33	T2	2.30
D	0.50	U1	2.50
G	0.65	U2	2.60
J1	0.80	U3	2.70
J2	0.83	U4	2.90
K	0.88	V1	3.00
N	1.00	V2	3.20
O1	1.10	V3	3.30
O2	1.15	W	3.50
P1	1.20	X1	4.00
P2	1.25	X2	4.30
Q1	1.30	Y	4.50
Q2	1.39	Z	5.00
S1	1.50	AA	6.00
S2	1.70		
S3	1.80		

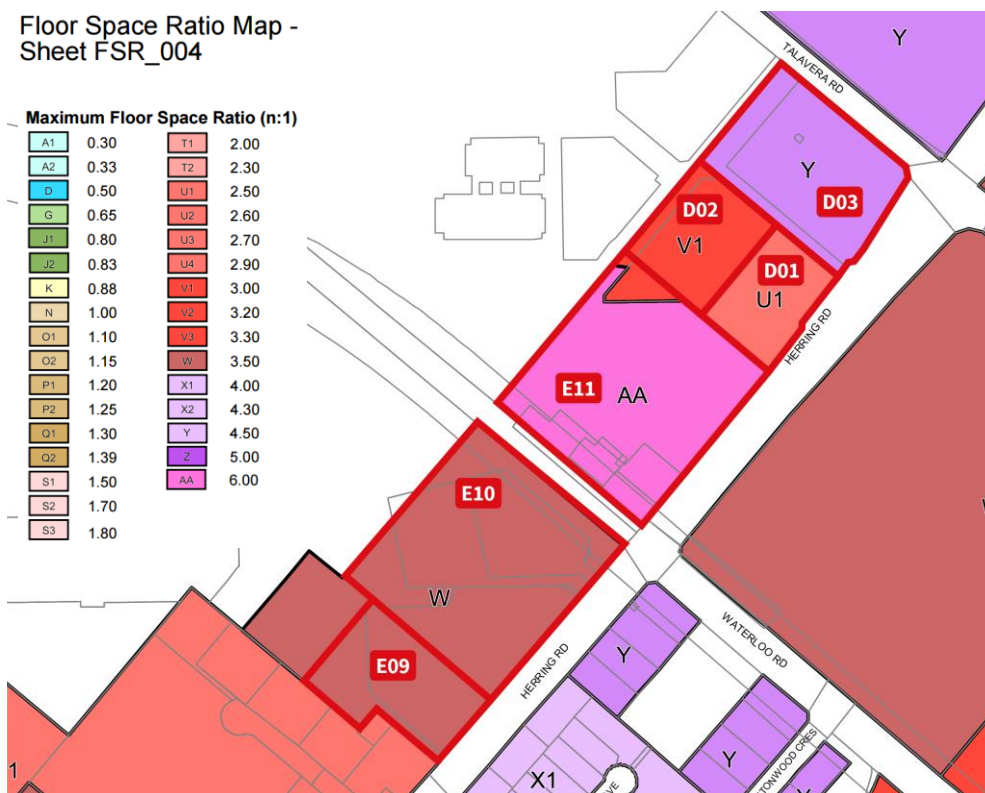


Figure 4 – FSR Map extract - Ryde LEP 2014 overlay with MU development lot references

### 3.1.1 Calculation of GFA for Site E11 (2 University Avenue)

Lot E11 (otherwise referred to as Station North or 2 University Avenue) is recognised as the Gateway into the University Campus and an appropriate location for a significant landmark building. On this basis, this site was afforded the most significant height and GFA under the approved MU CP and subsequent Priority Precinct.

The University is currently developing a scheme to redevelop the site for an integrated development comprising education, commercial and hotel facilities to create an iconic gateway building at this entrance to the Campus. The development has a maximum height of 120m and a GFA of approximately 128,000m<sup>2</sup>.

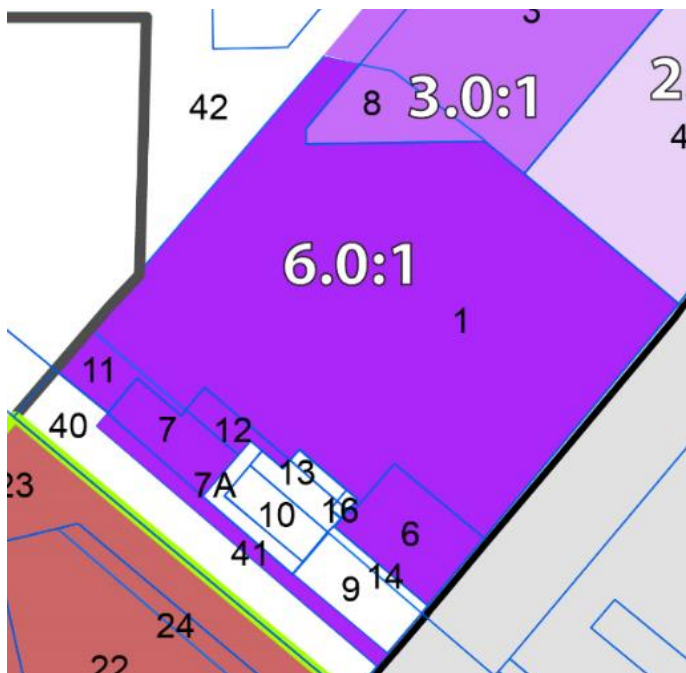
During finalisation of the Priority Precinct, there was ongoing consultation with the Department regarding the quantum of GFA that would be afforded to this site. In discussions with the Department, there was an understanding that this site would be eligible for a GFA of approximately 125,000m<sup>2</sup>. This site is made up of numerous 'lots', with complex land ownership arrangements around the station portal (note – these are not separate lots from a land titling perspective, however have been described as lots for the purpose of this exercise). A summary of lots and areas is provided at **Table 4**. **Figure 5** shows the location of these lots.

Whilst lot 41 (MU roadway) is not included in the 6:1 area on the LEP mapping, it was considered part of the site when the Department was doing their original floor space calculations for the Priority Precinct. Conversely, the station lots were excluded from the Department's Priority Precinct calculations, however they have been included in the LEP mapping. The proposed area calculations are based on the original site area assumptions discussed with the Department. The increase to a GFA of approximately 128,000m<sup>2</sup> is derived from the inclusion of lot 8 (2,994m<sup>2</sup> of GFA) into the site area. Lot 8 represents a triangular piece of land which used to form part of Lot D02. Lot D02 was previously under separate ownership, however the University has since taken back ownership of this lot, and is now seeking to include it as part of the development site for 2 University Avenue.

**Table 4 – Lot E11 (2 University Avenue) area calculations**

Lot ID*	Area	FSR	Owner	Lot GFA (m <sup>2</sup> )
1	17,459	6.0:1	MU	104,754
6	1,243	6.0:1	MU	7,458
7	662	6.0:1	MU	3,972
7A	427	0	Rail	0
8	998	3.0:1	MU	2,994
9	807	0	Rail	0
10	493	0	Rail	0
11	486	6.0:1	MU	2,916
12	302	6.0:1	MU	1,812
13	315	0	Rail	0
14	134	0	Rail	0
16	18	0	Rail	0
41	684	6.0:1	MU (road)	4,104
<b>TOTAL</b>				<b>128,010</b>

\* note – these are not separate lots from a land titling perspective, however have been described as lots for the purpose of this exercise



**Figure 5 – Lot reference diagram prepared during Priority Precinct discussions**

Source: Cox and the Department

### 3.2 Increase to Academic GFA

As discussed at Section 2.5, the increase in academic floor space is largely driven by a change to the University’s academic offering and increases in area / EFTSL benchmarks.

The proposed additional academic floor space will enable the delivery of much needed academic facilities, and will account for academic support floor space which is not considered in the currently approved figures.

Since approval of the Concept Plan, the University has delivered 5,600m<sup>2</sup> of additional academic floorspace. Together with the 89,435m<sup>2</sup> of additional academic GFA forecast by currently planned development, there will be a shortfall of approximately 33,800m<sup>2</sup> of academic and support GFA in the short to medium term.

To accommodate the University’s requirements to 2036, an additional 95,800m<sup>2</sup> of academic and academic support floor space is proposed, taking the total additional academic floor space to 157,000m<sup>2</sup> (including the 61,200m<sup>2</sup> already approved under the MU CP).

A breakdown of the proposed figures, including a summary of area / EFTSL figures for each faculty, is provided in **Table 5**.

As noted above, the University proposes to maintain the approved additional commercial floor space of 400,000m<sup>2</sup>, being the total quantum approved for Precincts E and F.

### 3.3 Removal of Precinct-by-Precinct GFA Restrictions

With the exception of Precinct D and key sites along Herring Road, it is proposed to remove the prescriptive precinct-by-precinct breakdown of GFA to provide more flexibility to locate academic, commercial and student accommodation uses wherever it is most appropriate, and wherever opportunity arises.

Whilst academic floor space will generally continue to be focussed within the Academic Core (Precinct A) and commercial uses will generally be located outside of this precinct, the flexibility to provide uses outside of the nominated precincts would allow the University to respond to the changing nature of university development, and the desire to collocate traditional academic uses with commercial, research, student accommodation, retail and support functions. This shift is reflected in recent changes to the zoning of the Campus which is now largely zoned B4 Mixed Use rather than SP2 Infrastructure.

Similarly, the modification also seeks to enable student housing to be located outside of Precinct B. It is now widely recognised that student accommodation is an important aspect of creating a '24 hour campus'. Pushing student housing to the periphery of the Campus (as is currently the case) does not align with current models of combining student accommodation with other academic and related uses.

Notwithstanding this, the proposed modification seeks to retain site-specific maximum GFA figures for sites along Herring Road, and a separate cumulative cap for Precinct D. The retention of the site-specific GFA controls along Herring Road will provide greater certainty for these key sites, and will align with the format of the current MU CP approval and Ryde LEP 2014. Further, a separate cumulative GFA cap for Precinct D is being retained as it is important in differentiating the GFA cap for Precinct D from the additional 400,000m<sup>2</sup> of commercial GFA available across the Campus.

### 3.4 Modifications to Condition C15

Condition C15 of the MU CP is required to be amended to enable the University to enter into separate agreements for the remaining intersection upgrades and construction of the cycleway / Shared Use Path (SUP) on Epping Road. Condition C15, as currently worded, is replicated below:

#### **C15 Agency and Council Agreements**

- (1) *An agreement is to be made with the RTA for relevant road and intersection works prior to or with the first application for new commercial floor space on the site.*
- (2) *The agreement referred to in (1) above it so provide details on the staging of the road based infrastructure provision outlined in Condition B3(1) **as well as the construction of missing cycleway connections on Epping Road** and details of appropriate bus priority measures to be implemented throughout the University.*
- (3) *Proposed road works / significant intersections modifications along the classified road network and local street network, as identified within the agreement referred to in (1) above, are to be designed to meet the RTA standards and endorsed by a suitably qualified and chartered engineer, and approved by the Department of Planning.*
- (4) *The agreement referred to in (1) above is to include provision for a Works Authorisation Deed for any works referred to in the agreement as may be required by the RTA. The Proponent to*

*be responsible for all public utility adjustment / relocation works and all works / regulatory signposts associated with the proposed development shall be at no cost to the RTA.*

- (5) An Agreement is to be made with Council for the provision of development contributions and / or agreed works in kind required for the development of the site, prior to, or with the first application for new floor space on the site. (our emphasis)*

To enable Condition C15(1) to be resolved, the University is entering into a VPA with the Department of Planning and Environment (on behalf of RMS) to provide a monetary contribution towards regional road and transport infrastructure identified under Condition B3(2)(a) and B3(2)(b) of the Concept Plan.

It was originally intended that this VPA would also address the required contributions for the cycleway / SUP (Condition C15(2) of the Concept Plan) however RMS has since advised that this should be managed through a separate agreement with Council.

Subsequently, the University has engaged in preliminary discussions with Council's Senior Coordinator, Traffic / Transport & Development Management regarding the value of the works. The University has now submitted a letter of offer to enter into a VPA with City of Ryde Council for the cycleway / SUP component.

Prior to execution of the VPA, the wording of Condition C15 needs to be amended to permit the payment of a monetary contribution to Council pursuant to a planning agreement for the provision of the cycleway / SUP component. The proposed wording for Condition C15 is outlined at Section 3.6.

**Table 5 - Area and EFTSL projections**

Faculty	2016				2036				
	Current EFTSL 2016	Overall % of EFTSL	M <sup>2</sup> / EFTSL <sup>3</sup> Gross	GFA (including common)	EFTSL 2036	Overall % of EFTSL	Increase from 2016	Target m <sup>2</sup> / EFTSL	GFA (including common)
Faculty of Arts	6,627	22.9%	6.9m <sup>2</sup> / EFTSL	45,783m <sup>2</sup>	9,765	24.5%	47.4%	8.0m <sup>2</sup> / EFTSL	78,120m <sup>2</sup>
Faculty of Business & Economics	10,064	34.8%	4.9m <sup>2</sup> / EFTSL	49,202m <sup>2</sup>	13,495	33.9%	34.1%	6.0m <sup>2</sup> / EFTSL	80,970m <sup>2</sup>
Faculty of Science & Engineering	4,930	17.1%	10.2m <sup>2</sup> / EFTSL	50,280m <sup>2</sup>	5,080	12.8%	3.0%	11.0m <sup>2</sup> / EFTSL	55,880m <sup>2</sup>
Faculty of Medicine and Health Science	273	0.9%	40.9m <sup>2</sup> / EFTSL	11,164m <sup>2</sup>	978	2.5%	258.2%	35.0m <sup>2</sup> / EFTSL	34,230m <sup>2</sup>
Faculty of Science	5,742	19.9%	12.2m <sup>2</sup> / EFTSL	70,005m <sup>2</sup>	7,528	18.9%	31.1%	15.0m <sup>2</sup> / EFTSL	112,920m <sup>2</sup>
Macquarie Graduate School of Management	649	2.2%	17.3m <sup>2</sup> / EFTSL	11,217m <sup>2</sup>	676	1.7%	4.2%	18.0m <sup>2</sup> / EFTSL	12,168m <sup>2</sup>
Macquarie University International College	628	2.2%	10.6m <sup>2</sup> / EFTSL	6,666m <sup>2</sup>	2,254	5.7%	258.9%	12.0m <sup>2</sup> / EFTSL	27,048m <sup>2</sup>
<b>Total<sup>4</sup></b>	<b>28,913</b>	<b>100%</b>	<b>8.5m<sup>2</sup> / EFTSL (avg)</b>	<b>244,317m<sup>2</sup></b>	<b>39,776</b>	<b>100%</b>	<b>37.6%</b>	<b>10.1m<sup>2</sup> / EFTSL (avg)</b>	Support: 133,800m <sup>2</sup> Academic: 267,536m <sup>2</sup> <b>TOTAL: 401,336m<sup>25</sup></b>
<b>TOTAL ACADEMIC GFA INCREASE FROM 2016</b>									<b>157,019m<sup>2</sup></b>

<sup>3</sup> EFTSL numbers include space allocated to research

<sup>4</sup> Includes common / academic support functions such as shared administration spaces and offices, food and beverage outlets, common lecture theatres and classrooms

<sup>5</sup> Includes 61,200m<sup>2</sup> already approved under MU CP. The University proposes to increase the quantum of additional academic floor space (including support space) to 157,000 m<sup>2</sup>, representing an increase of 95,800m<sup>2</sup>

### 3.5 Proposed Modifications to the Design Excellence Strategy and Urban Design Guidelines

As noted above, the MU CP conditions of approval require the preparation of a Design Excellence Strategy and Urban Design Guidelines prior to or with the first application for new building works within each precinct.

The original Guidelines for Precinct E were prepared and endorsed in 2010 to enable determination of the Hearing Hub Project Application. In 2015, Guidelines were submitted for the remaining precincts, with the exception of Precinct D, which was excluded as it was subject to the Priority Precinct process. The Campus-wide Guidelines are awaiting endorsement.

In consultation with Council, the University has been excluded from Part 4.5 of the Ryde Development Control Plan 2014 and the Guidelines now establish the detailed design controls for development across the Campus.

This modification is accompanied by revised Guidelines for Precinct E. The revised Guidelines now reflect changes resulting from the Priority Precinct process, and incorporate controls for Precinct D now that the Priority Precinct process has been finalised. During preparation of the Guidelines, it has generally been accepted by Council and the Department that greater detail is required for Precincts E and D, as they have the most significant interface with the public domain. The level of detail provided in the revised Guidelines is consistent with that provided in the original Guidelines for Precinct E.

Key elements of the amended Guidelines include:

- Providing for increased heights and floorspace along Herring Road to align with the outcomes of the Priority Precinct process;
- Providing detailed design controls for each lot, including increased heights around the academic core to allow activation of the Central Courtyard space;
- Translating the FSR controls under Ryde LEP 2014 to maximum GFA caps for key sites along Herring Road, to align with the terminology used in the approved MU CP and to provide greater clarity for the University; and
- Aligning the Guidelines to reflect recent changes to road layouts across the Campus, which have been undertaken as part of various applications under Part 5 of the EP&A Act.

A full list of amendments to the document is provided with the Guidelines.

### 3.6 Proposed Modifications to the Approval

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

#### SCHEDULE 2 PART A – ADMINISTRATIVE TERMS OF APPROVAL

##### A1. Development Description

Except as modified by this approval, Concept Plan approval is granted only to the carrying out of development solely within the Concept Plan area as described in the document titled "Macquarie University State Environmental Planning Policy (SEPP) amendment and Concept Plan" dated April 2008, as amended by the "Macquarie University Concept Plan and SEPP Major Projects) Amendment Preferred Project Report" dated March 2009, **and as modified by "Environmental Assessment Report Section 75W to Concept Plan (MP06\_0016)" dated September 2017** prepared by JBA Urban Planning Consultants Pty Ltd and Cox Richardson Architects including:

- (a) the provision of an additional 400,000m<sup>2</sup> of commercial GFA and associated parking within the **Macquarie University Campus outside of the Academic Core**.
- (b) The provision of an additional ~~61,200m<sup>2</sup>~~ **157,000m<sup>2</sup>** of academic GFA within the **Macquarie University Campus Academic Core**.
- (c) The provision of an additional 3,450 beds within the **Macquarie University Campus University Housing Precinct** for University purposes only.
- (d) Infrastructure upgrading and improvements to the road network as required, and
- (e) Rationalisation of University car parking locations.

**Reason:** This condition is proposed to be updated to reflect the additional academic GFA that is sought under the proposed modification, and to remove the prescriptive precinct-by-precinct GFA controls.

This condition is also proposed to be updated to reflect the Environmental Assessment Report for the modification application.

##### A2. Development in Accordance with Plans and Documentation

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

- (a) "Macquarie University State Environmental Planning Policy (SEPP) amendment and Concept Plan" dated April 2008, as amended by the "Macquarie University Concept Plan and SEPP Major Projects) Amendment Preferred Project Report" dated March 2009, **and as modified by "Environmental Assessment Report Section 75W to Concept Plan (MP06\_0016)" dated September 2017** prepared by JBA Urban Planning Consultants Pty Ltd, **Ethos Urban** and Cox Richardson Architects

Except for otherwise provided by the Department's modifications of approval as set out in Schedule 2, Part B and the Proponent's Statement of Commitments set out in Schedule 3.

- (2) In the event of any inconsistencies between the modifications of this concept approval and the plans and documentation described in Part A, Schedule 2, the modifications of this concept approval prevail.
- (3) In accordance with Section 75P(2)(a) of the EP and A Act, where there is an approved Concept Plan, any approval given under Part 4 of the Act by Council, must be consistent with that Concept Plan.

**Reason:** This condition is proposed to be updated to reflect the Environmental Assessment Report for the modification application.

### A3. Gross Floor Area

The maximum additional gross floor area for each use is identified in the following table:

Use	Maximum Additional Gross Floor Area (GFA) across the Campus
Commercial	400,000m <sup>2</sup> (excludes maximum permissible floor space in Precinct D)
Academic (including support uses such as shared administration spaces and offices, food and beverage outlets, common lecture theatres and classrooms)	157,000m <sup>2</sup>

In addition, the following maximum GFA limits apply to the nominated precincts and sites. If the maximum GFA is not achieved for a particular site, the GFA can be redistributed elsewhere on the Campus pursuant to the maximum GFA caps identified in the table above and the development parameters established under the Design Excellence Strategy and Urban Design Guidelines: precinct is detailed in the following table:

Precinct / Site	Maximum Gross Floor Area (GFA)
Precinct D	136,000 171,000m <sup>2</sup>
Precinct E - Site E09	48,290m <sup>2</sup>
Precinct E - Site E10	82,290m <sup>2</sup>
Precinct E - Site E11	128,000m <sup>2</sup>
Precinct E (Station North)	90,000m <sup>2</sup>
Precinct E (Station South)	85,000m <sup>2</sup>
Precinct E (Triangle South of University Avenue)	155,000m <sup>2</sup>
Precinct F	70,000
Academic Core	61,200

**Reason:** This condition is proposed to be updated to reflect the additional academic GFA that is sought, as well as the proposed removal of the precinct-by-precinct breakdown of GFA. It also seeks to clarify the GFA that is permissible in certain precincts / sites, and to eliminate any ambiguity between the additional 400,000m<sup>2</sup> of commercial GFA that is permissible across the Campus, from the cumulative GFA cap of 171,000m<sup>2</sup> that is proposed for Precinct D.

The GFA limits that are proposed for Precincts E and D seek to align the Concept Plan with the recent changes to Ryde LEP 2014 at the Campus' key public domain interfaces. Built form across

the remainder of the Campus will be managed in accordance with the Design Excellence Strategy and Urban Design Guidelines (refer to **Appendix A**).

## SCHEDULE 2 PART B – MODIFICATIONS TO THE CONCEPT PLAN

### B1. Car Parking

(1) Car parking for commercial uses shall not exceed a maximum rate of 1 space per 80m<sup>2</sup> of gross floor area ~~across Precincts E and F~~.

*Note: variations to the car parking rates could be considered only where it can be demonstrated with certainty that upon completion of the full development of Precincts E and F in accordance with the approved Concept Plan, compliance is achieved with the maximum prescribed parking rate.*

**Reason:** This condition is proposed to be updated to reflect the proposed removal of the precinct-by-precinct breakdown of GFA and use, and to reflect the more flexible approach that is proposed to development across the University. The intent of the condition remains unchanged, and there will be no change to the originally approved number of parking spaces.

(3) New car parking for commercial buildings ~~within Precincts D, E and F~~ shall be located within basements (part of which may be above ground due to the slope of the site) and generally contained within the footprint of the building above. The design of any above ground car parking shall include architectural treatment of the elevations to reduce their visual impact and dominance.

**Reason:** This condition is proposed to be updated to reflect the proposed removal of the precinct-by-precinct breakdown of GFA and use, and to reflect the more flexible approach that is proposed to development across the University. The intent of the condition remains unchanged.

### B3. Road works

(1) **The outstanding road intersection upgrades in paragraphs (2)(a) and (2)(b) are to be addressed via agreement(s) with the Minister or Council for the relevant road and intersection works, or via a monetary contribution in lieu thereof.**

(2) The Concept Plan approval includes the following road intersection upgrades identified within Section 4.4 of the Macquarie University Concept Plan TMAP' dated March 2009 and prepared by Cardno Eppell Olsen:

- (a) Epping Road / Balaclava Road intersection – additional through lane on Balaclava Road (south) and additional right turn lane on Balaclava Road (north).
- (b) Epping Road / Herring Road intersection – additional through lane on Herring Road (south), additional right turn lane on Epping Road (east), two through lanes and two right turn lanes on Herring Road (north) and adjusted signal phasing.
- (c) Waterloo Road / Herring Road intersection – left / through lane on Waterloo Road (east) and adjusted signal phasing.
- (d) Waterloo Road / Culloden Road intersection – realign Gymnasium Road to make fourth leg at roundabout and provide two lane circulation roundabout.
- (e) Talavera Road / Christie Road intersection – additional left turn slip lane, through lane / right turn lane on Talevera Road (east), departure lane becomes full traffic lane on Talavera Road (west) and adjusted signal phasing.
- (f) Talavera Road / Herring Road intersection – adjusted signal phasing.

~~(1) Within 3 months of the date of this approval, or as otherwise agreed to by the Department, indicative timing and staging plans of the above intersection works shall be submitted to the Department. As part of any application that generates the need to undertake the above intersection works, detailed design plans for the relevant intersection upgrade(s) and a commitment to enter into a Works Authorisation Dees (or similar type of arrangement) with the RTA shall be submitted to the Department.~~

**Reason:** Condition B3(1) is proposed to be added to reflect the current approach to resolving the road and infrastructure upgrade requirements under Condition B3. Following ongoing consultation with RMS, the Department and Council, it is now agreed that there will be two separate agreements (one with Council and one with the Department) for the remaining intersection works and cycleway / SUP. Condition B3(1) also seeks to clarify that only the intersections identified under Conditions B3(2)(a) and B3(2)(b) remain outstanding, as agreed with RMS. Finally, former Condition B3(1) is proposed to be deleted as this requirement has not been completed. Given the current approach to addressing the final two intersection upgrades, it is considered unnecessary.

#### B5. Setbacks

- (1) An amendment to the Concept Plan is to be prepared in consultation with Council and the RTA, and approved by the Department of Planning, which makes provision for adequate setbacks along Balaclava Road (from Epping Road to University Avenue) and Waterloo Road (from Herring Road to Research Park Drive), to facilitate additional capacity improvements and bus priority, **prior to or with the lodgement of the first application for new building works within Precinct E if identified as being required by the detailed micro-simulation model. If required, the amendment is to be prepared in accordance with the timing approved under the Hearing Hub MP10\_0032 approval, as modified.**
- (2) The setbacks referred to in (1) above form part of the agreements referred to in C15 of this approval.

**Reason:** The requirement to provide setbacks along Balaclava Road (from Epping Road to University Avenue) and Waterloo Road (from Herring Road to Research Park Drive) to facilitate additional capacity improvements and bus priority is subject to ongoing discussions with RMS, TfNSW and Council. The University maintains that no setbacks are required, and is working with RMS, TfNSW and Council to reach resolution on this matter. Once resolved, a modification application will be submitted to amend the wording of Condition B5.

In the interim, it is proposed to amend Condition B5 to align with the wording of the Hearing Hub approval (MP10\_0032).

### PART C – FURTHER ASSESSMENT REQUIREMENTS

#### C15. Agency and Council Agreements

- (1) ~~An Agreement(s) is are~~ to be made with the **RTA Minister** for the relevant road and intersection works **nominated under Conditions B3(2)(a) and B3(2)(b)** prior to or with the first application for new commercial floor space on the site. **Alternatively, an Agreement is to be made with the Minister for the provision of a monetary contribution in lieu of the upgrade of these intersections.**
- (2) **Where appropriate,** The agreement(s) referred to in (1) above **is are** to provide details on the staging for the road based infrastructure provision **or the provision of a monetary contribution,**

**as the case may be outlined in Condition B3(1)** as well as the construction of ~~missing cycleway connections on Epping Road~~ **the shared use path referred to in (6) below** and details of appropriate bus priority measures to be implemented throughout the University.

- (3) Proposed road works / significant intersections modifications along the classified road network, as identified within the agreement(s) referred to in (1) above, are to be designed to meet the **RTA RMS** standards and endorsed by a suitably qualified and chartered engineer, and approved by the Department of Planning.
- (4) The agreement(s) referred to in (1) above **is are** to include provision for a Works Authorisation Deed for any works referred to in the agreement(s) as may be required by the **RTA RMS**. The Proponent to be responsible for all public utility adjustment / relocation works and all works / regulatory signposts associated with the proposed development shall be at no cost to the **RTA RMS**.
- (5) ~~An~~ Agreement(s) **is are** to be made with Council for the provision of development contributions and / or agreed works in kind required for the development of the site, prior to, or with the first application for new floor space on the site.
- (6) Agreement(s) are to be made with Council for the provision of a monetary contribution for the construction of the shared use path in accordance with the terms of the offer dated July 2017 made by the proponent to Council.**

**Reason:** This condition is proposed to be amended to enable the University to enter into separate agreements for the intersection works and cycleway / SUP. This follows advice from RMS that the cycleway / SUP cannot form part of the broader VPA that is required to satisfy Condition C15(1). The proposed amendments also seek to recognise that the remaining two intersections under Condition B3(2) will be addressed by way of a monetary contribution. The intent of the condition remains unchanged.

### C3. Landscaping

- (1) The Landscape Management Plan referred to on Page 4 of the Statement of Commitments is to be integrated with the Design Excellence Strategy and Urban Design Guidelines referred to in B4 of this approval and is to demonstrate.
  - (a) Maintenance of the bush land setting of the site.
  - (b) Achievement of the landscape principles articulated in the Statement of Commitments, and is shown in Figure 26 to the Environmental Assessment Report.
- (2) The Landscape Management Plan is to be prepared for each precinct, and **submitted for approval prior to or with the first application for new building works with each precinct made publicly available on the University's website prior to or with the first application for new building works in each precinct.**

**Reason:** This condition is proposed to be amended to align with the suggested changes to the Statement of Commitments, and to limit the need for documents to be submitted multiple times.

### C4. Riparian Zone, Flooding and Storm water

- (1) The Stormwater Management Plan and other various plans referred to on page 6 of the Statement of Commitments are to be:

- (a) *Integrated with the Vegetation Management Plan and Threatened Species Plan referred to on page 4 of the revised Statement of Commitments.*
- (b) *Revised in accordance with any modifications undertaken as part of this approval.*

**A copy of the Stormwater Management Plan, as updated from time to time, shall be published on the University's website.**

- (2) ~~The A Stormwater Management Plan is to be submitted for approval with each application for new building works, as relevant.~~

**Reason:** It is considered that submitting the Stormwater Management Plan (that has been prepared to accompany the Guidelines) with each application has limited value. Rather, a project specific Stormwater Management Plan should be prepared to accompany each application, as relevant.

#### C6. Flora and Fauna

- (1) *The Vegetation Management Plans, The Threatened Species Plan, and the Weed Management Plan referred to on page 4 of the Statement of Commitments shall detail and responsibility for each action, and shall include ongoing measures. **A copy of the Plans shall be published on the University's website.***

~~(2) A copy of the Plans shall be submitted with each application for building works.~~

- (3) *All future development is to be undertaken in accordance with the 'Guidelines for Development Adjoining Department of Environment and Conservation Land' by DECC dated August 2006.*

**Reason:** This condition is proposed to be amended to align with the suggested changes to the Statement of Commitments, and to limit the need for documents to be submitted multiple times.

#### C8. Environmental Management and Contamination

- (1) *The hazardous material audit, **a Phase 1 contamination assessment** and a targeted Phase 2 intrusive contamination assessment (if required) referred to on page 2 of the Statement of Commitments is to be prepared be submitted (sic) for approval with each application for building works, **as relevant to the scope of the proposal. based on an assessment on a precinct by precinct basis.***

**Reason:** This condition is proposed to be amended to align with the suggested changes to the Statement of Commitments. Given the limited potential for contamination on the University Campus, it is considered unreasonable to require a Phase 2 contamination assessment with every application for building works. Similarly, the need to carry out these assessments on a precinct by precinct basis is considered unnecessary.

#### C13. Construction Staging

~~(1) A Staging Plan including details of proposed bulk earth works must be submitted for approval with the first application for new building works within each precinct.~~

~~(2) The Staging plan is also to address those matters identified in C10 above.~~

- (3) *A Construction Management Plan, an Erosion and Sedimentation Plan, and a report detailing the existing geological conditions of each development site ~~(within the relevant precinct)~~, and any potential geological impacts of development consistent with the Concept Plan must be submitted*

with any application for ~~the development of the particular precinct or site~~ and is to be integrated with any Vegetation Management Plan and Threatened Species Management Plan referred to on page 3 and 4 of the revised Statement of Commitments; ~~and integrated with the Staging Plan referred to in C1 of this approval.~~

**Reason:** It is requested that Conditions C13(1) and (2) be deleted. It has become apparent that it is impractical to prepare a staging plan for all future development, including bulk earthworks, for each precinct. Development staging at the University is continually changing as funding availability and priorities change. Similarly, providing details about bulk earth works when many developments are several years from being delivered is unfeasible.

It is proposed to rationalise Condition C13(3) to make it more workable and practical. The intent of the condition remains unchanged.

### 3.7 Proposed Modifications to the Statement of Commitments

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

Subject	Commitments	Approved by Whom	Timing
Environmentally Sustainable Development	<ul style="list-style-type: none"> <li>▪ Commercial development on the site shall be capable of achieving the following targets:                             <ul style="list-style-type: none"> <li>- Buildings should achieve a minimum 4-star Green Star rating.</li> <li>- Buildings should achieve a minimum 4.5-star NABHERS rating.</li> <li>- Retail development will comply with any reasonable future rating tool provided by the Australian Greenhouse Rating Scheme.</li> </ul> </li> <li>▪ Each development <b>involving external works</b> is to provide measures to capture, retain, and minimise litter, oil, sediment, nutrients, and pollutants prior to stormwater runoff discharge to the receiving creeks.</li> <li>▪ <del>A precinct-based supply vs. demand analysis will be performed at the detailed design stage of the development to provide</del> <b>Each development is to consider opportunities for</b> water re-use <del>storage system</del> <b>to service non-potable uses such as irrigation for landscape areas and for toilet flushing, as relevant to the scope of the proposal.</b></li> </ul>	<p><del>Director – General</del></p> <p><b>Secretary</b> of the Department of Planning</p>	<p><del>Prior to or with submission of each Project Application for building works</del></p> <p><b>Each Development Application is to demonstrate consistency with the requirements relating to ESD, as relevant to the scope of the proposal.</b></p>
Access, traffic and transport	<ul style="list-style-type: none"> <li>▪ A University Travel Plan (UTP) will be formulated by Macquarie University for the academic / educational uses at the site only. <b>A copy of the UTP is to be published on the University’s website.</b></li> <li>▪ Development on the site (academic and commercial) shall be consistent with the aim of</li> </ul>	<p><del>Director – General</del></p> <p><b>Secretary</b> of the Department of</p>	<p><del>Ongoing and prior to or with submission of each Project Application for building works</del></p> <p><b>Each Development Application is to</b></p>

Subject	Commitments	Approved by Whom	Timing
	<p>the Macquarie Park Traffic Study which seeks a target of 40% non-car modal split over time. Details of the academic mode share targets (staging/mode split) will be incorporated in the UTP and will be reviewed on a regular basis against achievement as per the timing above.</p> <ul style="list-style-type: none"> <li>▪ A car parking management strategy will be developed as part of the UTP.</li> <li>▪ A strategy for bicycle parking including end of trip facilities will be developed as part of the UTP.</li> <li>▪ A strategy for intra-university travel will be developed as part of the UTP and will include recommendations on travel to/from university housing, connections to the rail station, and night travel. Consideration will be given to the development of a campus shuttle bus service in the UTP.</li> <li>▪ A detailed micro-simulation transport model of the University internal road network and surrounding “area of influence” will be developed. The model will be used to assess in detail proposed changes to the internal road network and review internal intersection performance. The model will be utilised for assessment of project applications and to determine staging of works. The timing of the model would be based on full operation of the Epping-Chatswood rail link being realised and any major redevelopment of the Station South portion of Precinct E.</li> <li>▪ Development on the site shall promote as far as practicable reduced use of private single occupant vehicles and promote public transport use, walking and cycling – including implementation of the Macquarie University Cycle Access Plan.</li> <li>▪ Commercial developments will be required to prepare a Workplace Travel Plan (WTP) for individual sites in accordance with City of Ryde DCP <del>2006 2014</del> Part 4.5 (Section <del>6.3.9 4.4</del>).</li> <li>▪ All internal roads are to be designed and constructed consistent with the requirements of all relevant Australian Standards, and the requirements of Council and Austroads as applicable.</li> <li>▪ The design facilities will permit effective, appropriate and safe use by all people, including those with disabilities in accordance with the Building Code of Australia and Australian Standard AS 1428.</li> <li>▪ 4800 car parking spaces are to be retained for academic (4,095) and existing commercial and MURP related (705) uses on site. New car parking for non-academic uses shall be at a maximum rate as identified within the Concept</li> </ul>	<p>Planning</p>	<p><b>demonstrate consistency with the requirements relating to Access, Traffic and Transport and the published UTP, as relevant to the scope of the proposal.</b></p>

Subject	Commitments	Approved by Whom	Timing
	Plan <b>for each precinct.</b>		
<b>RTA RMS</b> roads	<ul style="list-style-type: none"> <li>Macquarie University shall provide for regional road upgrades in negotiation with the <b>RTA RMS</b> consistent with recommendations contained in the revised TMAP as prepared by Cardno Eppell Olsen <b>or by way of a monetary contribution in accordance with the agreement(s) with the Minister.</b> The negotiated position shall seek to determine the appropriate schedule of works, value, responsibilities, and timing.</li> </ul>	Minister for Planning	As part of the Concept Plan approval and as determined by the negotiations with the <b>RMS, or by the time specified in the agreement(s) with the Minister where the commitment is by way of the payment of a monetary contribution.</b>
Environmental management and contamination	<ul style="list-style-type: none"> <li>A hazardous material audit which will include sampling and identification of asbestos and Polychlorinated Biphenyls (PCBs) will be completed to determine the extent and integrity of the hazardous building materials which exist on <b>each development site the site.</b></li> <li>Any demolition / removal of Polychlorinated Biphenyls (PCBs) and asbestos containing material will be conducted in accordance with current NSW EPA waste classification and disposal guidelines, and WorkCover occupation health and safety procedures.</li> <li><b>A Phase 1 contamination assessment is to be prepared for each Development Application involving ground works. If recommended by the Phase 1 contamination assessment, A a targeted Phase 2 intrusive contamination assessment is to be prepared</b> to assess whether any contamination, from potential sources outside the site, has migrated onto the property. This would involve the drilling and collection of soil samples as the installation of ground water wells. In addition, limited surface soil sampling as will be conducted across any sporting fields and open spaces which may have been treated with organochlorine / organophosphate pesticides. The result of Phase 2 soil and groundwater investigations will be assessed against the relevant land-use criteria stated by NSW EPA, NEPM and ANZECC guidelines. If concentrations of contaminants exceed the relevant land-use guideline, a remedial action plan will be developed, with remediation and validation works completed in accordance with EPA guidelines, CLM Act (1997) and SEPP 55.</li> <li>Development at particular sites (including the Australian Film and Television School and the site</li> </ul>	<b>Director – General Secretary</b> of the Department of Planning	<p><b>Prior to or with submission of each Project Application for building works, based on assessment on a precinct by precinct basis.</b></p> <p><b>Each Development Application is to demonstrate consistency with the requirements relating to Environmental Management and Contamination, as relevant to the scope of the proposal.</b></p> <p><b>Aside from the site of the former Australian Film and Television School and the site of the existing service station, a Phase 2 contamination assessment is only required if recommended by a Phase 1 contamination assessment.</b></p>

Subject	Commitments	Approved by Whom	Timing
	<p>of the existing service station) will include a detailed soil investigation and appropriate management of any contamination, if determined.</p>		
<p>Geotechnical and construction impacts</p>	<ul style="list-style-type: none"> <li>▪ A report detailing the existing geotechnical conditions of each development site (<b><i>within the relevant precinct</i></b>) and any potential geotechnical impacts of development consistent with the Concept Plan shall be submitted with future <b><i>project development</i></b> applications.</li> <li>▪ A Construction Management Plan will be submitted with subsequent applications to address issues related to construction impacts such as, but not limited to, noise, vibration, dust, soil and erosion and waste materials.</li> <li>▪ An Erosion and Sedimentation Control Plan will be developed to address <b><i>both</i></b> the construction phase to ensure erosion and sedimentation controls will be put in place prior to any works beginning to ensure that any potential increase in run-off from removal of vegetation or leaf litter does not impact on downstream or off-site environments and development does not contribute to environmental damage <b><i>if of</i></b> the waterways, bushland or air quality.</li> <li>▪ Buildings around the new rail station will be designed having regard to the Epping-Chatswood Rail Link Underground Infrastructure Protection Guidelines (TIDC – May 2008), with future applications accompanied by appropriate engineering advice and design measures to protect TIDC infrastructure.</li> </ul>	<p><b><i>Director – General</i></b> <b><i>Secretary</i></b> of the Department of Planning</p>	<p><b><i>Prior to or with submission of each Project Application for building works.</i></b></p> <p><b><i>Each Development Application is to demonstrate consistency with the requirements relating to Geotechnical and Construction Impacts, as relevant to the scope of the proposal.</i></b></p> <p><b><i>Geotechnical reports and Erosion and Sedimentation Control Plans are only required for applications involving ground works.</i></b></p>
<p>Flora and fauna</p>	<ul style="list-style-type: none"> <li>▪ <b><i>Ecological restoration management plans will be developed for retained flora remnants and include pest and weed management.</i></b></li> <li>▪ As part of each <b><i>Project Development</i></b> Application that potentially affects Remnant Areas 1 – 4 of STIF, a Vegetation Management Plan (VMP) is to be submitted that addresses the restoration and rehabilitation of the STIF, as relevant. <b><i>A copy of the Vegetation Management Plan is to be published on the University's website.</i></b></li> <li>▪ Where possible, endangered vegetation remnants will be retained and protected from further encroachment/degradation or supplemented with appropriate offsets at other remnants.</li> <li>▪ Where possible, individual remnant trees outside remnant areas will be retained.</li> <li>▪ Detailed flora and fauna surveys and assessments will be undertaken as part of each future application where development is</li> </ul>	<p><b><i>Director – General</i></b> <b><i>Secretary</i></b> of the Department of Planning</p>	<p><b><i>Prior to or with submission of each Project Application for building works.</i></b></p> <p><b><i>Each Development Application is to demonstrate consistency with the requirements relating to Flora and Fauna, as relevant to the scope of the proposal.</i></b></p> <p><b><i>Development applications are to demonstrate consistency with the published Vegetation Management Plan, as relevant to the scope of</i></b></p>

Subject	Commitments	Approved by Whom	Timing
	<p>proposed that may impact upon flora and fauna and STIF remnants or areas nominated as potential endangered ecological communities (EEC).</p> <ul style="list-style-type: none"> <li>▪ Indirect impacts on bushland such as weeds and fire will be managed by the implementation of management plans and strategies including:                             <ul style="list-style-type: none"> <li>- A Threatened Species Management Plan will be prepared to address relevant actions to conserve threatened species across the site.</li> <li>- A Weed Management Plan will be prepared as part of Project Applications to link into stormwater control strategies.</li> </ul> </li> </ul> <p><b>A copy of the Threatened Species Management Plan and Weed Management Plan are to be published on the University's website.</b></p>		<p><i>the proposal.</i></p>
Trees	<ul style="list-style-type: none"> <li>▪ A Landscape Management Plan will be prepared for <b>each site the Campus</b> that will address.                             <ul style="list-style-type: none"> <li>- Retention or replacement of planting of suitable tree species (preferably endemic and mature where possible); and</li> <li>- Long term preservation and maintenance of tree assets.</li> </ul> </li> </ul> <p><b>The Landscape Management Plan is to be published on the University's website.</b></p>	<p><b>Director – General</b></p> <p>Secretary of the Department of Planning</p>	<p><i>Prior to or with submission of each Project Application for building works.</i></p> <p><i>Each Development Application is to demonstrate consistency with the published Landscape Management Plan, as relevant to the proposal.</i></p>
Bushfire Protection	<ul style="list-style-type: none"> <li>▪ All habitable development <b>within Precinct B</b> will comply with the requirements of Planning for Bushfire Protection 2006 (NSW Rural Fire Service), <b>particularly with Precinct B.</b></li> </ul>	<p><b>Director – General</b></p> <p>Secretary of the Department of Planning</p>	<p><i>Prior to or with submission of each Project Application for building works.</i></p> <p><i>Development Applications for habitable development within Precinct B are to comply with the requirements of Planning for Bushfire Protection 2006</i></p>
Infrastructure	<ul style="list-style-type: none"> <li>▪ A detailed water supply infrastructure needs analysis will be undertaken to allow for identification and controlled connection of the Mobbs Hill and Marsfield reservoirs, in consultation with Sydney Water.</li> <li>▪ Duplication of the existing sewer system will be investigated with Sydney Water as development envisaged under the Concept Plan progresses, to</li> </ul>	<p><b>Director – General</b></p> <p>Secretary of the Department of Planning</p>	<p><i>Prior to or with submission of any subsequent Project Application or commencement of building works (as applicable).</i></p>

Subject	Commitments	Approved by Whom	Timing
	<p>ensure existing services may remain and new services provided as development occurs.</p> <ul style="list-style-type: none"> <li>▪ Macquarie University will investigate all opportunities to maximise efficiency of existing Energy Australia assets in consultation with Energy Australia.</li> <li>▪ Macquarie University will investigate additional power generation opportunities beyond that supplied by Energy Australia.</li> <li>▪ New medium pressure gas mains will be provided as required, dependent upon take-up of existing gas supply and cogeneration power options.</li> <li>▪ Water detention areas are to be provided within the development area, <b>where appropriate</b>.</li> <li>▪ All relevant certificates and approvals, including those required under Section 68 of the Local Government Act 1993 or section 73 of the Sydney Water Act 1994 will be obtained.</li> </ul>		<p><b>Services and infrastructure upgrades are to be provided prior to, or with, future Development Applications, as required.</b></p>
Heritage / archaeology	<ul style="list-style-type: none"> <li>▪ The Metropolitan Local Aboriginal Land Council will be requested to monitor surface works during initial construction phase <b>in areas of the Campus with potential Archaeological significance</b>.</li> <li>▪ Should any Aboriginal relics or artefacts be unexpectedly discovered, then all excavations or disturbances to the area will cease and National Parks and Wildlife will be informed in accordance with section 91 of the National Parks and Wildlife Act 1974.</li> <li>▪ Should any historical relics be unexpectedly discovered, all excavations and disturbance to the area will stop immediately, and the Heritage Council of NSW will be informed in accordance with section 146 of the Heritage Act 1977.</li> </ul>	<p><b>Director – General</b>  Secretary of the Department of Planning</p>	<p><b>Prior to or with submission of each Project Application for building works.</b></p> <p><b>Each Development Application is to demonstrate consistency with the requirements relating to Heritage / Archaeology, as relevant to the scope and location of the proposal.</b></p>
Design Excellence and Urban Design Guidelines	<ul style="list-style-type: none"> <li>▪ A Design Excellence Strategy will be prepared to ensure a quality built form and public domains achieved during the life and construction of the project.</li> <li>▪ The Strategy will clearly articulate a process to achieve design excellence, and may include the preparation of site specific design guidelines and principles.</li> <li>▪ Urban design guidelines will be developed to ensure design excellence is achieved in the architecture of the buildings and public domain (streets, parks and squares). This will include building designs and standards.</li> <li>▪ The detailed urban design guidelines will be provided as part of precinct plans and a detailed urban design guideline will be provided. The guidelines will address the following: <ul style="list-style-type: none"> <li>- Building form;</li> </ul> </li> </ul>	<p><b>Director – General</b>  Secretary of the Department of Planning</p>	<p><b>Prior to or with submission of each Project Application for building works and on a precinct by precinct basis.</b></p> <p><b>Each Development Application is to demonstrate consistency with the published Guidelines.</b></p>

Subject	Commitments	Approved by Whom	Timing
	<ul style="list-style-type: none"> <li>- Heights;</li> <li>- Road widths;</li> <li>- Streetscape character;</li> <li>- Civic spaces;</li> <li>- Parking provision;</li> <li>- Lighting, safety and security;</li> <li>- Water sensitive urban design;</li> <li>- Energy efficiency; and</li> <li>- Materials and colours.</li> </ul> <p>The guidelines will address CPTED principles for Safer by Design best practice models, to which all future applications will need to accord.</p> <p><b><i>The Design Excellence Strategy and Urban Design Guidelines are to be published on the University's website.</i></b></p>		
Riparian Zone , Flooding and Stormwater	<ul style="list-style-type: none"> <li>▪ Adoption of the 100-year storm event as the interim design flood level standard and that proposed structures to have 500mm freeboard to the finished floor level, 300mm freeboard for flood egress roads, and 150mm freeboard for flood egress footpaths.</li> <li>▪ Location of the proposed development outside the 100-year storm flood extent as shown in the TTW report.</li> <li>▪ Location of the proposed development outside the riparian zone (except for development for approved revegetation and creek rehabilitation and stabilisation works).</li> <li>▪ Provision of a flood management/evacuation plan for proposed development within the PMF flood extent as shown in the TTW report.</li> <li>▪ <b><i>Precinct-based Where required</i></b>, stormwater detention storages are to be implemented to limit flow to that of the pre-development flowrates, from the 5-year to the 100-year ARI storm events.</li> <li>▪ A detailed creek rehabilitation and riparian vegetation management plan will be prepared to establish a short, medium and long-term revegetation and rehabilitation strategy for the Mars and University Creeks beds, banks, and riparian zones.</li> </ul>		<b><i>Each Development Application is to demonstrate consistency with the requirements relating to Riparian Zone, Flooding and Stormwater, as relevant to the scope and location of the proposal.</i></b>
Other matters	<ul style="list-style-type: none"> <li>▪ The payment of the Long Service Levy under section 34 of the <i>Building and Construction Industry Long Service Levy Payment Act 1986</i> will be paid for any works costing \$25,000 or more.</li> <li>▪ The University will prepare a childcare strategy,</li> </ul>	<p><b><i>Director – General</i></b></p> <p><b><i>Secretary</i></b> of the Department of</p>	Prior to the commencement of building works for each individual application.

Subject	Commitments	Approved by Whom	Timing
	based on, amongst other things, ensuring timely notification, relocation, decanting and reopening of childcare facilities within the campus as a result of new development.	Planning	
Transitional issues	<ul style="list-style-type: none"> <li>▪ As the Triangle South of University Avenue is developed, at-grade parking required in the earlier stages of development will be relocated into basements of new buildings so that when the Triangle is fully developed, the open space will be provided in accordance with the Concept Plan.</li> </ul>	<p><b>Director – General</b> <b>Secretary</b> of the Department of Planning</p>	Prior to the Triangle South of University Avenue being fully developed by <del>2031</del> <b>2036</b> .
Contributions / VPA	<ul style="list-style-type: none"> <li>▪ Developer Contributions will be made consistent with the terms of the Macquarie University VPA(s) presently being prepared and formalised in consultation with Macquarie University, City of Ryde Council, and other relevant parties.</li> <li>▪ See above for relevant arrangements for contributions to the <b>RTA RMS</b>.</li> </ul>	Minister or <b>Director – General</b> <b>Secretary</b> of the Department of Planning (as relevant).	Consistent with the terms of the <b>relevant</b> VPA

**Reason:** The various amendments to the Statement of Commitments are proposed to reflect the changes to the Conditions of Consent described in Section 3.6, and to make the Statement of Commitments more practical and less ambiguous. The intent of the Commitments generally remains unchanged, with the modifications seeking to make the Commitments easier to apply and more relevant to the variety of works that are carried out on the University Campus. The changes also seek to reduce the quantity of information required to be submitted with each development application, by making key documents publicly available on the University’s website.

## 4.0 Strategic Justification

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

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

### 4.1 NSW State Priorities

In 2015, the then Premier released the NSW State Priorities. The NSW State Priorities replace NSW 2021: A Plan to Make NSW Number One. The 12 Premier's priorities and 18 State priorities seek to grow the economy, deliver infrastructure, protect the vulnerable, and improve health, education and public services across NSW.

The NSW State Priorities focus on a broad range of areas from creating jobs and building infrastructure, to protecting vulnerable youth, and reducing domestic violence rates.

Whilst not all of the priority areas are applicable to development, the overall MU CP, including the additional academic floor space / capacity that would be facilitated as part of this modification, are generally consistent with the intent of the NSW State Priorities. The proposed modifications will:

- Increase the employment capacity of the MU Campus within an established highly accessible centre with access to a range of services and amenities; and
- Foster new business through supporting relationships between activities at MU and other research bodies / organisations in the Macquarie / Ryde Technology Corridor to commercialise technologies and increase innovation.

### 4.2 NSW Tertiary Education Plan

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

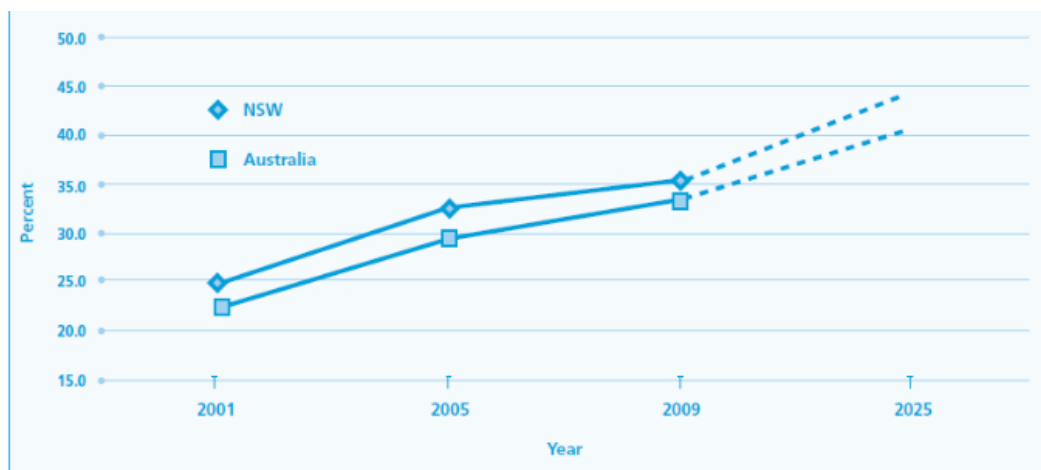
The NSW Tertiary Education Plan outlines the NSW Government's vision for strong and effective partnerships between government and the tertiary education sector, to drive the economic, social and cultural development of New South Wales.

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

One such priority is increasing participation and attainment in tertiary education to boost productivity. Aligning with the Federal government's target, NSW has set a target to increase the percentage of 25 to 34 year olds who hold a bachelor degree or above to 44% by 2025 (refer to

**Figure 6**). The proposed modification application and its resulting increase in the academic capacity of the MU CP will support this goal.

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



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

**Figure 6 – Proportion of 25 to 34 year olds with a bachelor degree or higher (trend and 2025 target)**

Source: NSW Government

### 4.3 A Plan for Growing Sydney

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

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

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

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

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

The modification application:

- Responds to the need to meet Sydney's growing needs in education;
- Supports new opportunities to grow high-skilled jobs in the global economic corridor (refer to **Figure 7**);
- Supports the growth of tertiary education activities in a strategic centre;
- Supports one of the NSW Government's priority industries (i.e. international education and research); and
- Supports the integration of employment and transport infrastructure.

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

The modification application:

- Supports urban renewal and delivery of infrastructure in a centre where there is growth;
- Will provide an opportunity to create a new healthy built environment; and
- Matches a growing community with better access to jobs and essential social / cultural infrastructure.

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

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

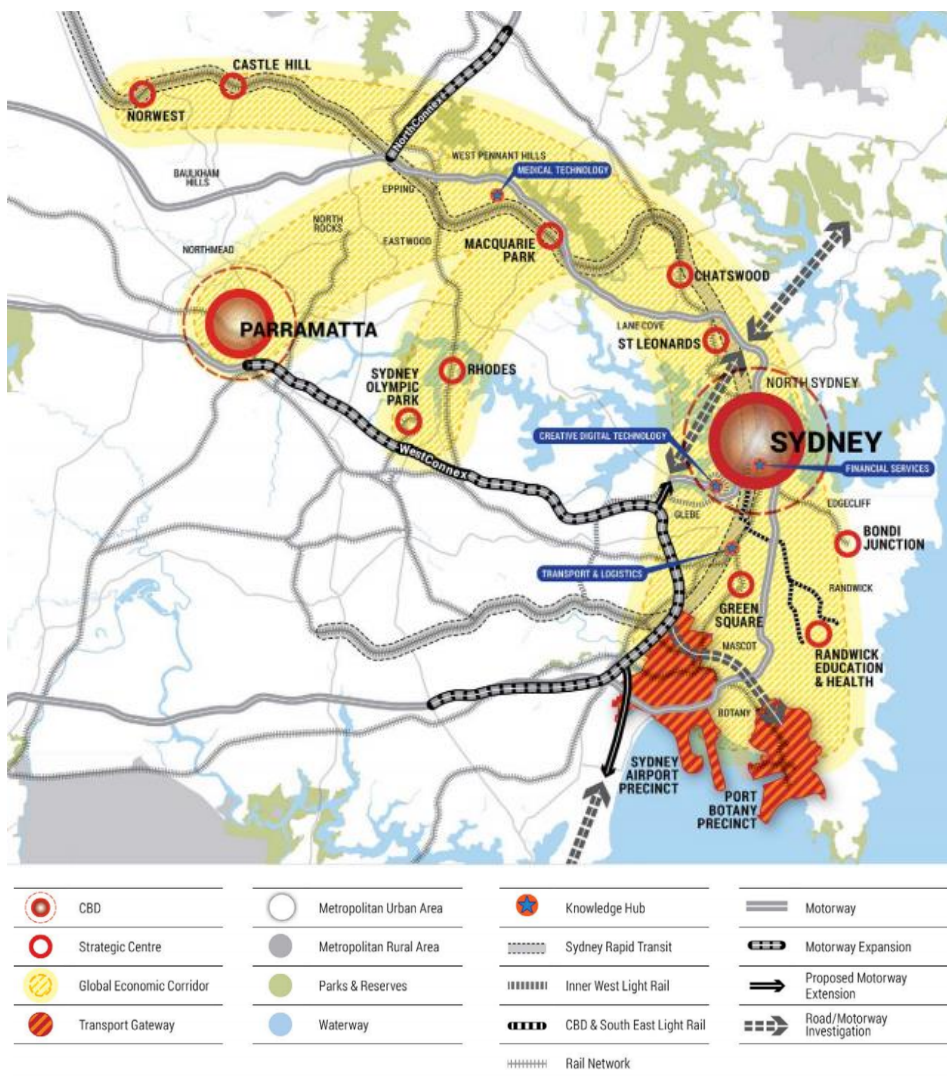
#### **North Subregion**

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

- Supporting long term employment growth in Macquarie Park;
- Supporting additional mixed-use development around train stations; and
- Facilitating the delivery of the Herring Road Macquarie Park Priority Precinct.

Further, the Plan includes a specific priority for Macquarie Park which the proposed modification application directly supports:

*Support education and health-related land uses and infrastructure around Macquarie University and Macquarie University Private Hospital.*



**Figure 7 – The Global Economic Corridor**

Source: NSW Department of Planning and Environment

#### 4.4 Revised Draft North District Plan

In October 2017, the Greater Sydney Commission released the Revised Draft North District Plan. The revised draft Plan establishes the 20-year vision for the North District, to 2036. The draft Plan sets key priority actions for the North District, one of which is to create a sense of place, grow jobs and diversify activity in Macquarie Park.

The draft Plan identifies Macquarie Park as a Collaboration Area. Collaboration Areas are identified as areas where a significant productivity, liveability or sustainability outcome is achieved through the collaboration of different levels of government, and in some cases, the private sector or landowners. The Macquarie Park Collaboration Area will give consideration to:

- Enabling additional capacity for commercial floor space to maintain a commercial core;
- Improving urban amenity as the centre transitions from business park to a vibrant commercial centre, including reducing the impact of vehicle movements on pedestrian and cyclist accessibility;

- Delivering a finer grain road network to enhance pedestrian connections and provide new access points;
- Promoting excellence in urban design by upgrading public areas; and
- Delivering an innovation ecosystem in Macquarie Park, capitalising on the relationship with Macquarie University and nearby high-tech and medical corporations.

In addition, the Macquarie Park Strategic Centre is identified as the third largest centre for employment in Greater Sydney behind Sydney City and Greater Parramatta. By 2036, Macquarie Park is set to deliver between 73,000 and 79,000 jobs.

The proposed modification to the MU CP will contribute to the delivery of the revised draft Plan by:

- Continuing to provide a significant quantity of commercial floorspace within the Campus to contribute to maintaining Macquarie Park as a commercial centre; and
- Enhancing the delivery of an innovation precinct in Macquarie Park by enabling flexibility to collocate commercial, education, research and academic support functions.

## 4.5 Macquarie Park Innovation District

Whilst not a State led initiative, the Macquarie Park Innovation District (MPID) is a response to the strategic framework outlined above. The MPID is a partnership between the University and 10 other Macquarie Park-based businesses – Optus, Johnson & Johnson, Abbott, KonicaMinolta, NAB, AMP Capital, Orix, Cochlear, City of Ryde Council and the NSW State Government.

MPID will be a world-class, collaborative ecosystem where researchers, entrepreneurs and some of the world's most-recognised businesses will come together to incubate creativity and find unique solutions to global and community issues.

The University is a crucial element of the MPID, bringing world-class research to the district. The MPID has the attributes to become one of Australia's foremost innovation centres. Building on the strengths of both MU and industry founders, MPID will drive innovative solutions in health and pharmaceuticals, bio-and digital tech as well as business and commerce.

The MPID growth strategy is based on existing Macquarie Park infrastructure, with enabling elements including entrepreneurship and start-up support, collaboration and community spaces and, most importantly, innovative events programming.

The MPID will invest heavily into one of Australia's fastest-growing regions to collaborate and create innovative solutions to local and global problems.

The University is a key component of the MPID. The ability to provide additional academic floor space and the ability to locate uses across the Campus, as anticipated by this modification, will support the development of the MPID.

## 4.6 Summary of Strategic Justification

In summary, the proposed modification to the MU CP will:

- Facilitate a significant boost in the capacity of Macquarie University to provide tertiary education to meet the growing needs and demands of Sydney, NSW, Australia and the world more broadly;
- Create additional jobs / workers; and
- Support a more skilled workforce.

The provision of additional jobs and educational uses at Macquarie University is consistent with all the relevant strategic planning documents established to guide the growth of Sydney, including the NSW State Priorities, A Plan for Growing Sydney and the draft North District Plan. The proposal has significant planning merit and is consistent with these strategies as it will:

- Reinforce the University's role within the Macquarie Park strategic centre by providing world class teaching, learning and research facilities.
- Contribute to the delivery of a vibrant and liveable precinct through integrating land use planning with transport infrastructure. The MU Campus is highly accessible via train and benefits from connections to a large number of bus services to key destinations such as the Sydney CBD, North Sydney, Chatswood and Parramatta. The provision of additional capacity at MU will provide improved education facilities in such a highly accessible location, contributing to making Sydney connected through reducing travel times, growing patronage on public transport and providing people with easy access to alternative modes of transport.
- Contribute to providing additional capacity within the tertiary education sector.
- Contribute to providing new employment to meet the State Government's new jobs target, which requires over 34,000 new jobs to be created every year.
- Facilitate the ongoing development of Macquarie Park as one of Sydney's leading districts for innovation and research.

## 5.0 Environmental Assessment

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

### 5.1 Consistency with Concept Plan Objectives

Whilst the proposed modification seeks to vary the numerical controls contained in the approved MU CP, the proposal will remain consistent with the key objectives of the approved Concept Plan. The Concept Plan, as proposed to be modified, will:

- Protect the future physical expansion and academic development of Macquarie University;
- Build on the special qualities of Macquarie University;
- Allow development flexibility within the certainty of a structured framework;
- Optimise development potential to allow the University to leverage from its assets to provide a sustainable income for reinvestment into the University;
- Rationalise and strengthen access and circulation in response to new infrastructure;
- Create planning controls which will assist in attracting academic and research partners to the University;
- Maximise efficiency of the future built environment for academic and non-academic uses on the Campus; and
- Maintain the park-like setting of the University.

Notwithstanding the above, in light of the proposed changes which seek to enable uses to be located across the Campus in a more flexible manner, the specific objectives for the some of the individual precincts require modification (for example, Precinct B is no longer proposed to be the sole focus of the University's student accommodation development). Following determination of this modification, it is proposed to amend the Consolidated Concept Plan required by Condition B4 to reflect the amendments.

### 5.2 Urban Design and Built Form

Since the MU CP was approved in 2009, there has been a significant shift in the growth and development of the Macquarie Park corridor. Together with the proposed mixed-use redevelopment of the Macquarie Shopping Centre, the University's Herring Road frontage forms a key part of the delivery of the Herring Road Priority Precinct, and strengthens this northern gateway into Macquarie Park.

The University's Herring Road frontage is the Campus' most important public interface, with the vast majority of development elsewhere on the Campus being internalised, with limited external urban design or amenity impacts. The level of detail provided in the original Concept Plan and Guidelines is reflective of this.

The maximum building heights on Herring Road under the approved MU CP were designed to allow for the construction of landmark tower buildings at the arrival point to the train station and University. However, to provide a more human scale around the Macquarie University train station, the building heights step down towards University Avenue. The changes made to the height and FSR controls as part of the Priority Precinct process continue to reflect these principles, as shown in **Figures 8 and 9**.

Development along Herring Road will be designed in accordance with the updated Design Excellence Strategy and Urban Design Guidelines, which reflect the height and FSR standards established under Ryde LEP 2014. In this regard, the scale of development established by the Priority Precinct was designed to:

- Provide maximum heights and densities closest to the train station, University and shopping centre where they can benefit the most from public transport;
- Provide increased densities in areas with good access to public transport, considered to be within 800m or 10 minutes walking time from the train station;
- Define the precinct's key activity streets and entry points with taller buildings between 45m and 120m (14-34 storeys);
- Provide mixed uses that will result in a range of building types and activities;
- Limit the overshadowing of public open space and maximise building separation to provide adequate residential amenity; and
- Ensure new development faces onto public streets.

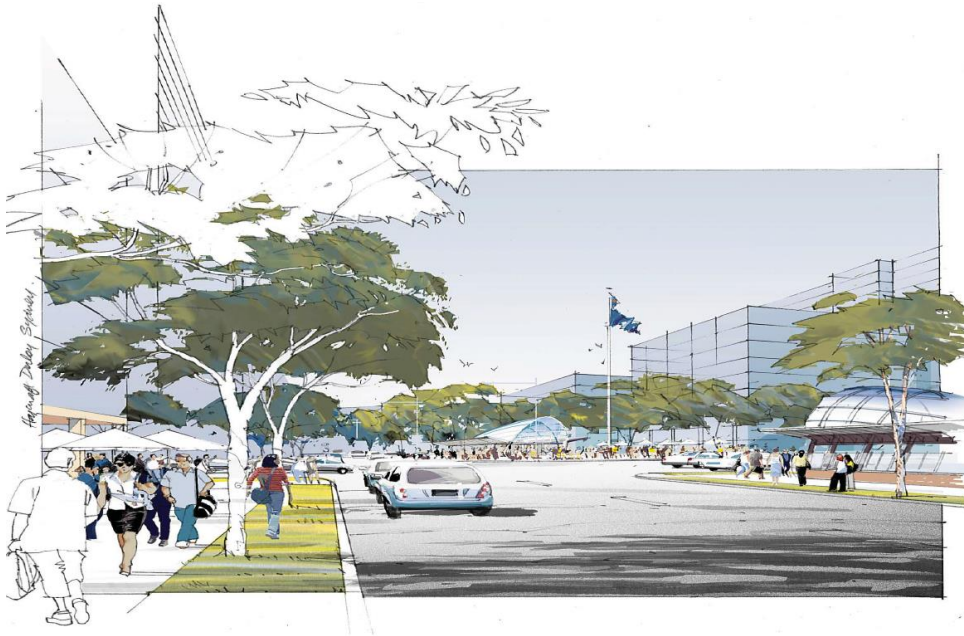
Future development at Macquarie University will be consistent with these principles, with the proposed modification reflecting the controls established for the Campus' Herring Road frontage under Ryde LEP 2014.

Further, development on the Station North Site (Site E11) will continue to be designed in accordance with Condition C2(2) of the MU CP approval, which requires that, amongst other things, development is setback 43m from the centre line of Waterloo Road and makes provision for active frontages.

Across the remainder of the Campus, development will be designed and assessed on a case-by-case basis in accordance with the Design Excellence Strategy and Urban Design Guidelines which provide DCP level controls for the Campus. Due to the scale of the Campus and the absence of nearby sensitive receivers, it has long been established that there is no need for restrictive height or FSR controls in most parts of the Campus – this is reflected by the historical absence of controls across the majority of the Campus.

Whilst fulfilling the University's functional and strategic requirements is a key focus of the proposed modification, the intent of the original MU CP will be retained. Of particular note, the Concept Plan (as proposed to be modified) seeks to reinforce the concept of the University as a 'Campus in a Park'. Macquarie University prides itself on its landscape character and quality, with a distinctive, predominantly native landscape setting. This will be enhanced through the creation of a robust public domain framework and a defined hierarchy and network of public spaces. Also imbedded in the design framework for the Campus is the concept of a 'compact core'. The original 1964 Master Plan identified a 5 minute optimum walk between classes on the Campus. The current development framework for the Campus continues this concept through the clustering of faculties and services.

Adhering to these principles will ensure that development will continue to be focussed in existing developed areas, with the developable footprint remaining largely consistent with that envisaged by the approved MU CP. These principles are reflected in the Macquarie University Campus Master Plan 2014 and Design Guidelines.



**Figure 8 – Sketch of the approved MU CP massing (looking north-west towards the Macquarie University train station)**

*Source: Macquarie University Concept Plan*



**Figure 9 – Photomontage of the LEP 2014 massing looking north-west towards the Macquarie University train station**

*Source: NSW Department of Planning and Environment*

### 5.3 Overshadowing and Solar Access

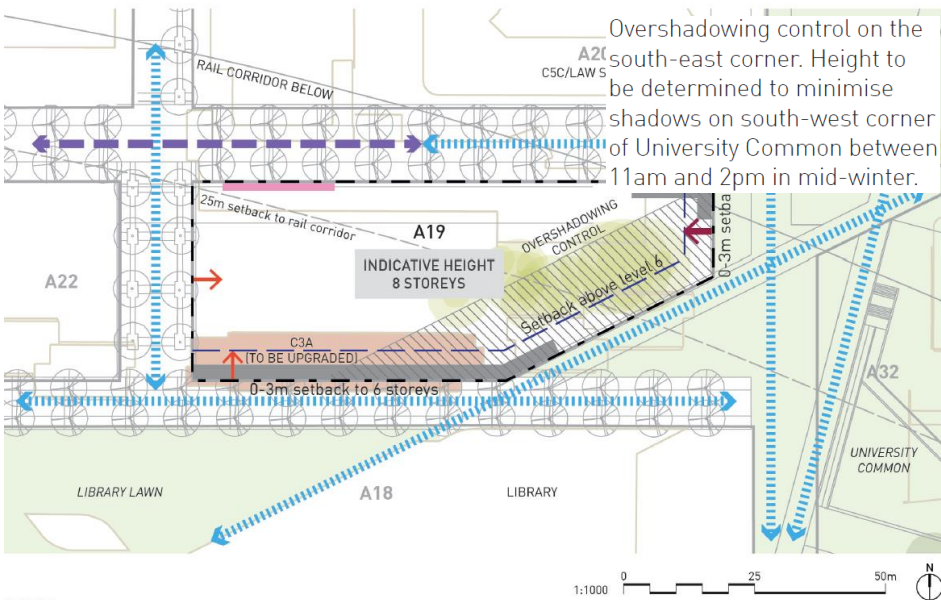
As noted above, the Herring Road building height strategy has concentrated the tallest buildings near the centre of the precinct, close to the train station and on the key activity streets of Herring Road and Waterloo Road.

In designing areas for taller buildings, the overshadowing and amenity impacts on existing and proposed public open spaces and nearby residential areas have been minimised.

Potential overshadowing impacts of the indicative built form for the Herring Road precinct were assessed as part of the Priority Precinct investigations for mid-winter (21 June) and for the autumn/spring equinox (21 March / 21 September).

The Department's assessment found that the proposed building form retained adequate solar access to open spaces in the precinct. Further, during both mid-winter and the autumn / spring equinox, the western side of Herring Road will receive good solar access in the morning. By midday and during the afternoon, the eastern side of Herring Road will receive good solar access with the western edge in shade.

Within the Campus, the Design Excellence Strategy and Urban Design Guidelines establish principles for retaining and maximising solar access to key areas by establishing areas / zones where solar access it to be maintained. In particularly sensitive areas, such as adjacent to the University Common, the Guidelines nominate overshadowing controls to minimise shadows in mid-winter. An example of this control, for development lot A19, is provided at **Figure 10**.



**Figure 10 – Urban Design Guidelines for development Lot A19, showing the overshadowing control**

Source: Macquarie University

## 5.4 Traffic, Transport and Access

A Traffic and Parking Statement has been prepared by ARUP (included at **Appendix B**).

Arup previously conducted extensive traffic modelling to support the MU CP. The modelling considers the full potential development of the Macquarie University campus, including up to 400,000m<sup>2</sup> of additional commercial floor space in Precincts E and F and approximately 61,000m<sup>2</sup> of additional academic floor space. The modelling recommended a suite of road infrastructure works to support the additional traffic generated by the potential development within the Campus, which are reflected in the conditions of consent for the MU CP.

The traffic modelling for the road network impacts arising from the development of the Campus was based entirely on the additional commercial floor space and on-site parking. Although student numbers at the University will continue to increase, car trips to the Campus, apart from those associated with commercial development, are not expected to grow because:

- The Concept Plan condition imposing a maximum limit on parking spaces does not allow for any further parking increase apart from commercial development; and
- The 40% non-car mode share target for the Campus will contribute to a gradual reduction in traffic generation rates.

It should be noted that the level of public transport usage (train and bus) has increased significantly from 13% in 2010 to 37% in 2012 (plus a proportion of 14% multi-modal trips) and 48% in 2014. Bus usage has increased from 8% to 21% over this period, whilst train usage has increased from 6% to 27%. The increase in train patronage is reflective of the improved train frequencies servicing the Macquarie University Railway Station.

This demonstrates that the University has now met and exceeded the mode share targets outlined in the original MU CP. These public transport mode shares are expected to increase significantly following the introduction of the Sydney Metro Northwest project in 2019. Once complete, the Sydney Metro Northwest will deliver a new rapid transport rail system with services every four minutes under a 'turn up and go' train service.

The proposed modification does not seek to allow any additional commercial floor space or car parking on the Campus, beyond that already approved under the current Concept Plan. Although additional academic GFA would be permissible, onsite parking is capped and public transport accessibility will improve in future years – and therefore car trips to the Campus are not expected to increase. No car parking is to be provided for the additional academic uses. As such, the application would not result in an increase in the number of vehicle movements on the local road network, compared with that previously modelled for the Concept Plan.

Further, the increased floor space within Precinct D is consistent with the additional floor space allowed within this precinct under Ryde LEP 2014. This increased density was considered as part of the Priority Precinct process, and was assessed as part of the Transport Strategy prepared to support the Priority Precinct process.

Given that this application does not seek to increase either commercial floor space or onsite car parking (compared to that already assessed under the current Concept Plan), there are to be no additional traffic / transport impacts associated with the application beyond that previously assessed by ARUP.

## 5.5 Stormwater and Flooding

In accordance with Condition B4 of the MU CP approval, a Utilities Management Plan and Stormwater Management Plan has been prepared by TTW to accompany the Design Excellence Strategy and Urban Design Guidelines (refer to **Appendix A**). In summary:

- Drainage designs for future works will follow the requirements set out in Ryde DCP 2014. Subsurface systems will be designed to capture and convey a 20-year storm event. Overland flow paths will be designed to convey flows from a 100-year storm event.
- Water Sensitive Urban Design measures will be incorporated into future development in accordance with Ryde DCP 2014 consistent with the following controls:
  - 90% reduction in the post development mean annual load of total pollutant loads (greater than 5mm);
  - 85% reduction in the post development mean annual load of Total Suspended Solids (TSS);
  - 60% reduction in the post development mean annual load of Total Phosphorous (TP); and
  - 45% reduction in the post development mean annual load of Total Nitrogen (TN).

Extensive flood modelling has been carried out for University Creek and Mars Creek. As shown in **Figures 11** and **12**, development lots are generally outside of the flood affected areas.

Ryde DCP 2014 outlines the following controls for buildings adjacent to flood affected land, which will be considered as part of future development on the Campus:

- The level of habitable floor areas are to be equal to or greater than the 100 year flood level plus freeboard of 500mm;
- Non-habitable floor levels are to be equal to or greater than the 100 year flood level plus freeboard of 500mm where possible, or otherwise no lower than the 20 year flood level plus freeboard of 500mm unless justified by a site specific assessment;
- Habitable floor levels are to be a minimum 500mm above adjacent ground levels;
- Non-habitable floor levels are to be a minimum 300mm above adjacent ground levels; and
- Garages capable of accommodating more than 3 motor vehicles on land zoned for urban purposes, or enclosed car parking, must be protected from inundation by floods equal to or greater than the 100 year flood.

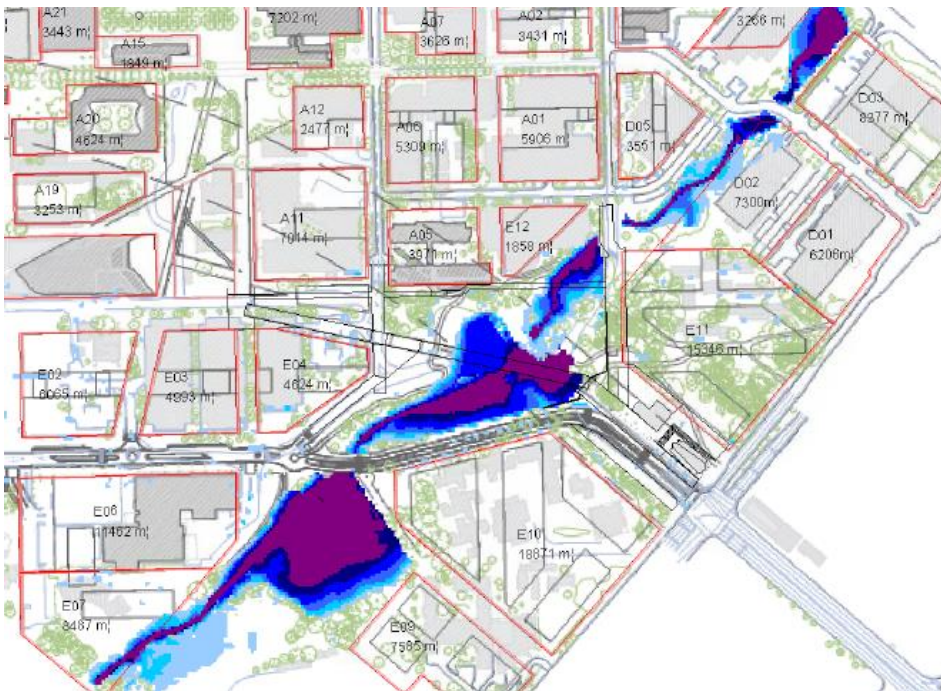


Figure 11 – 100-year-flood modelling results in University Creek

Source: TTW

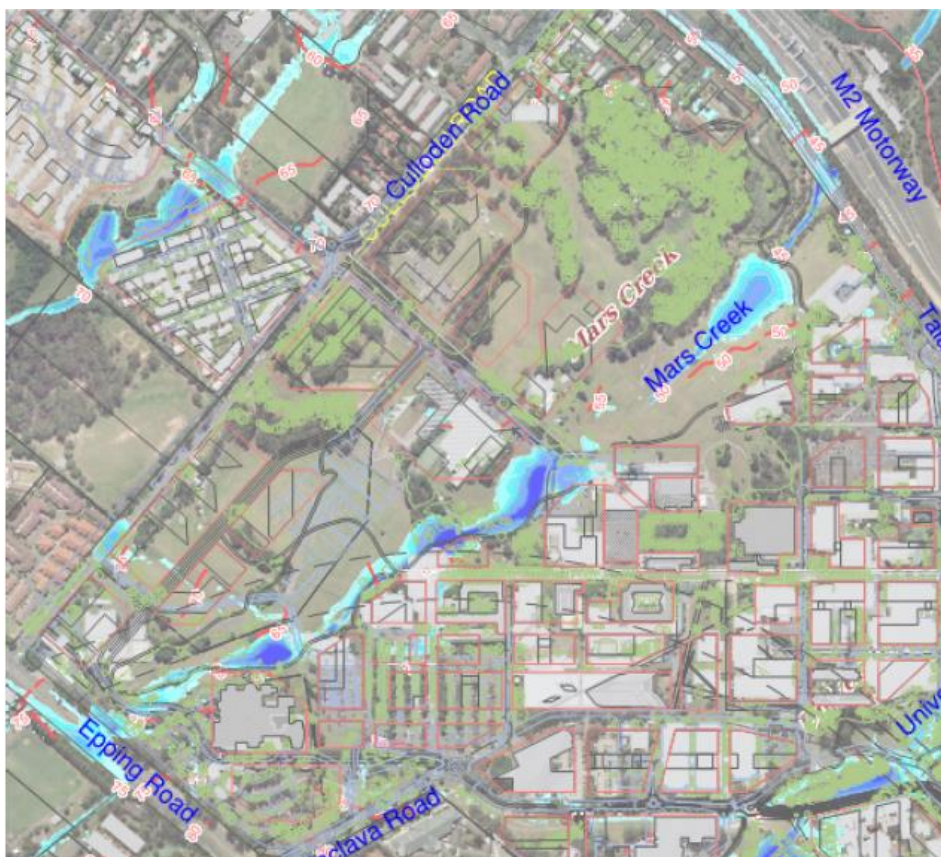


Figure 12 – Extract from Bewsher's report – 100 year flood modelling results in Mars Creek

Source: TTW

## 5.6 Utilities and Infrastructure

In accordance with Condition B4 of the MU CP approval, a Utilities Management Plan and Stormwater Management Plan has been prepared by TTW to accompany the Design Excellence Strategy and Urban Design Guidelines (refer to **Appendix A**).

The Management Plan addresses water, sewer and natural gas, as well as electrical and telecommunications services. It details existing utilities infrastructure, and identifies where augmentation would be required to facilitate future development on the Campus.

Utilities and infrastructure will be addressed on a case-by-case basis as part of future applications for new development.

## 5.7 Social and Economic Impacts

The University operates and maintains a range of facilities which are available for public use. These facilities will continue to be available to the general public under the modified Concept Plan.

Publicly accessible University facilities include, but are not limited to:

- Macquarie University Library;
- Macquarie University Hospital;
- Australian Hearing Hub;
- Four child care centres;
- Macquarie University Sports and Aquatic Centre;
- Sports fields;
- Tennis courts;
- Macquarie, Lighthouse, Mason, Price and Y3A Theatres;
- Art Gallery;
- Australian History Museum;
- Museum of Ancient Cultures;
- Observatory;
- University roads;
- University car parks;
- Passive open space;
- Macquarie University Sculpture Park; and
- Various meeting rooms on the Campus.

## 6.0 Conclusion

This Section 75W modification seeks approval for amendments to the MU CP, namely the provision of additional academic floor space and greater flexibility around the location of future development within the Campus, and to align the Concept Plan with recent changes to Ryde LEP 2014. It also seeks to enable Condition C15 to be amended to enable MU to enter into separate agreements for the remaining intersection upgrades and construction of the cycleway / SUP.

Following the detailed review of area / EFTSL figures and an analysis of the changing nature of the University's academic offering, it is clear that the original assumptions underpinning the Concept Plan with respect to academic floorspace and capacity have evolved due to changes in the tertiary sector. MU is expanding significantly into the future and is seeking to increase the amount of academic floor space to enable the University to continue to be at the forefront of teaching and research. This modification application is being sought to increase the academic floor space and provide increased flexibility.

The assessment contained within this report has resolved that there will not be any adverse environmental impacts resulting from the proposed modifications. The proposed modifications will facilitate the provision of additional academic floor space within the Campus, and will further strengthen MU's position as one of Sydney's and Australia's leading tertiary education providers.

The proposal has significant planning merit as it will:

- Assist in meeting the increased demand for tertiary education;
- Support the creation of additional jobs;
- Support a more skilled workforce;
- Strengthen a key industry of Sydney and NSW that plays a crucial role in making NSW Number One; and
- Strengthen the University's role within the Macquarie Park corridor, and the provision of education and research uses within the corridor.

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