



# Royal Institute for Deaf and Blind Children (RIDBC) Centre of Excellence

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State Significant Development SSD-10451

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Title: Royal Institute for Deaf and Blind Children (RIDBC) Centre of Excellence

Subtitle: Royal Institute for Deaf and Blind Children (RIDBC) Centre of Excellence

*Cover image: Artist's impression of Gymnasium Road entry (Source: WMK's architectural package)*

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# Glossary

Abbreviation	Definition
<b>AHD</b>	Australian Height Datum
<b>CIV</b>	Capital Investment Value
<b>Council</b>	City of Ryde Council
<b>CPTED</b>	Crime Prevention through Environmental Design
<b>Department</b>	Department of Planning, Industry and Environment
<b>Education SEPP</b>	State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2019
<b>EESG</b>	Environment, Energy and Science Group
<b>EIS</b>	Environmental Impact Statement
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979</i>
<b>EP&amp;A Regulation</b>	Environmental Planning and Assessment Regulation 2000
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
<b>EPI</b>	Environmental Planning Instrument
<b>FRNSW</b>	Fire and Rescue NSW
<b>Heritage</b>	Heritage NSW, Department of Premier and Cabinet
<b>LEP</b>	Local Environmental Plan
<b>Minister</b>	Minister for Planning and Public Spaces
<b>MQU</b>	Macquarie University
<b>RLEP 2014</b>	Ryde Local Environmental Plan 2014
<b>SEARs</b>	Planning Secretary's Environmental Assessment Requirements
<b>Planning Secretary</b>	Secretary of the Department of Planning, Industry and Environment
<b>SEPP</b>	State Environmental Planning Policy
<b>SRD SEPP</b>	State Environmental Planning Policy (State and Regional Development) 2011
<b>SSD</b>	State Significant Development
<b>TfNSW</b>	Transport for NSW

# Executive Summary

This report provides an assessment of a State Significant Development (SSD) application for the Royal Institute for Deaf and Blind Children (RIDBC) Centre of Excellence (SSD-10451). The development site is located within the Macquarie University campus, at 105 Culloden Road and Talavera Road, Macquarie Park. The applicant is the Royal Institute for Deaf and Blind Children (RIDBC) and the proposal is located within the Ryde Local Government Area (LGA).

## Assessment summary and conclusions

The Department has considered the merits of the proposal in accordance with relevant matters under section 4.15(1), the objects of the *Environmental Planning and Assessment Act 1979*, the principles of ecologically sustainable development and issues raised in submissions and the Applicant's response.

The Department's considers the key issues as:

- built form, urban design and amenity.
- transport and traffic.
- noise and vibration.
- tree removal.

The Department concludes the proposal is in the public interest and recommends that the application be approved subject to conditions.

## The proposal

The proposal seeks approval for a new Centre of Excellence across two new interconnecting buildings encompassing a specialist pre-school, primary school, clinical services workplaces and basement, concurrent amalgamation and subdivision, earthworks, tree removal, landscaping and associated works.

The pre-school and primary school have been designed for 80 children and 120 students respectively. The clinical services building includes up to 260 staff and includes conferencing facilities, consultation rooms, classrooms, resource centre, workplaces, outdoor courtyards and publicly accessible foyer, terrace and café. The proposal has an estimated capital investment value (CIV) of \$74,513,056 and would generate approximately 205 construction jobs and 300 operational jobs. Statutory context

The proposal is SSD under clause 15 of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011, as it is development for the purpose of a new school (regardless of capital investment value). Therefore, the Minister for Planning and Public Spaces is the consent authority.

## Engagement

The application was publicly exhibited between 19 November and 16 December 2020. The Department received a total of 10 submissions, all from public authorities. An additional three submissions from public authorities were received in response to the applicant's Response to Submissions (RtS).

The key issues raised in the submissions included built form, traffic and transport, and tree removal. All of these issues have been resolved to the Department's satisfaction throughout the process through design or additional investigations.

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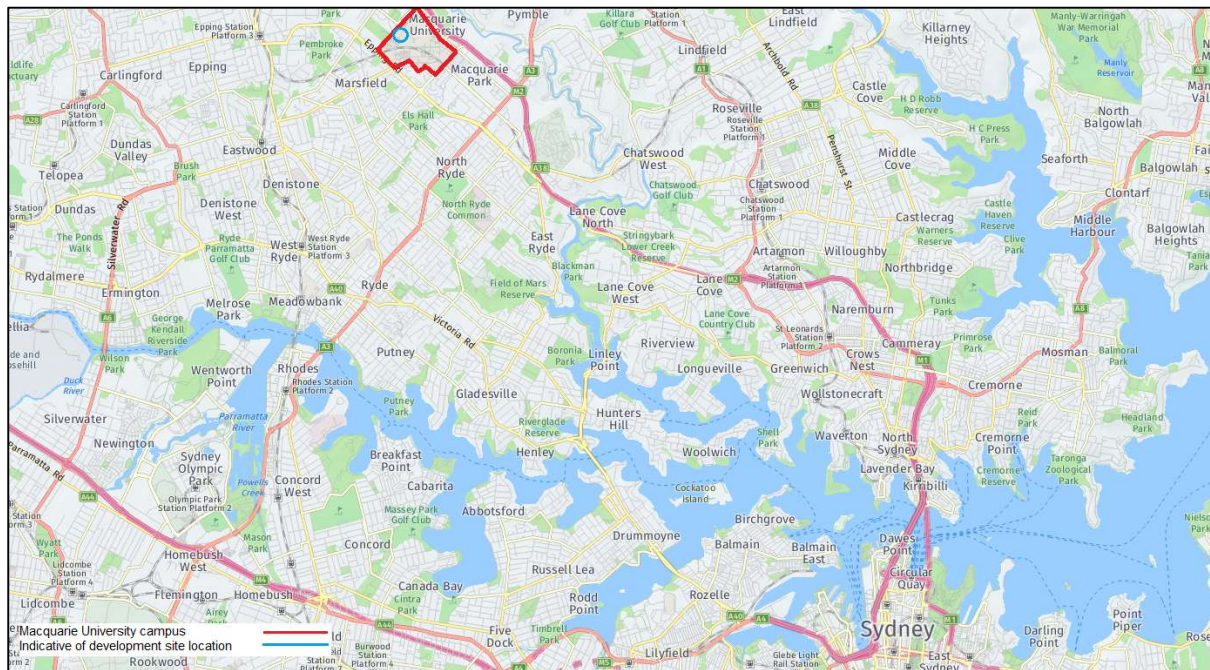


# 1 Introduction

This report provides an assessment of a State significant development (SSD) application lodged under Part 4, Division 4.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for the Royal Institute for Deaf and Blind Children (RIDBC) Centre of Excellence within the Macquarie University (MQU) Campus at Macquarie Park. The application was lodged by the Royal Institute for Deaf and Blind Children (RIDBC).

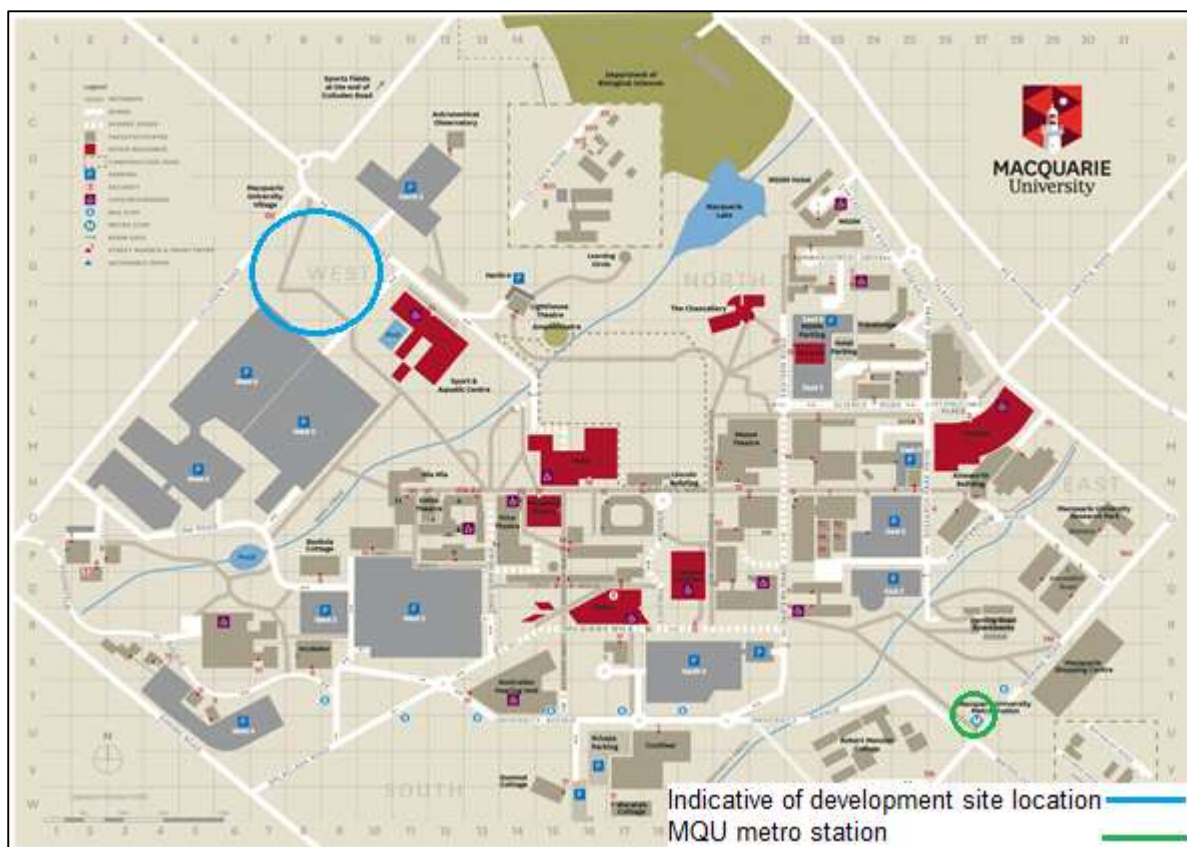
## 1.1 Site description

The site is located within the Macquarie University campus (Talavera Road and 105 Culloden Road, Macquarie Park) within the City of Ryde local government area (LGA), and is approximately 18km from the Sydney CBD (**Figure 1**). The proposed development is located within the north-western portion of MQU campus, approximately 900m from MQU metro station (**Figure 2**).



**Figure 1 |** Regional context map (Source: Nearmap)

The development site is bound by Culloden Road to the north-west, Gymnasium Road to the north-east, West Precinct Road to the south-east and the 'West 6' parking area to the south-west. Culloden Road is a public, Council-owned road. Gymnasium Road and West Precinct Road are both private, MQU-owned internal campus roads.



**Figure 2 |** Local context map (Source: Macquarie University website)

The indicative boundaries of the development site are identified in **Figure 3**.

The proposed development sits across two parcels of land, Lot 191 DP 1157041 and Lot 8 DP 1047085. The proposal seeks to amalgamate the existing lots and then subdivide to create parcels:

- Proposed lot 2001 – 1.934ha; would wholly encompass the development (the development site).
- Proposed lot 2000 – 105.9ha; would remain MQU campus.

The development site is irregular in shape. On the opposite side of Culloden Road is MQU Village, a multi-dwelling student accommodation development. To the south-east of the development is MQU sports and aquatic centre. Parking areas are located to the south-west and north-east of the development (known as 'West 6' and 'North 3' respectively).





**Figure 3 |** Indicative boundaries of development site (being proposed lot 2001) (Source: Applicant's EIS 2020)

The development site is partly cleared, characterised by large areas of managed turf interspersed with native vegetation, and trees at the perimeter and within the turfed areas (**Figure 4**). A pedestrian pathway traverses the site.

The development site generally falls from Culloden Road (approximately RL 80) towards West Precinct Road and Gymnasium Road (approximately RL 73 at eastern corner). This represents a fall of 7m over a distance of approximately 200m. The lowest point of the site sits at the southern corner (adjoining 'West 6' car park) at approximately RL 69.5 (**Figure 3**).

Other MQU uses front Culloden Road, predominantly at-grade car parks. A locally significant heritage item, 'Macquarie University (ruins)', is located approximately 180m from the site.

The site is zoned B4 – Mixed Use, with no applicable maximum height of building or floor space ratio under the Ryde Local Environmental Plan 2014 (RLEP 2014).



**Figure 4 |** View of development site from corner of Gymnasium Road and West Precinct Road, looking west (Source: Nearmap)

## 2 Project

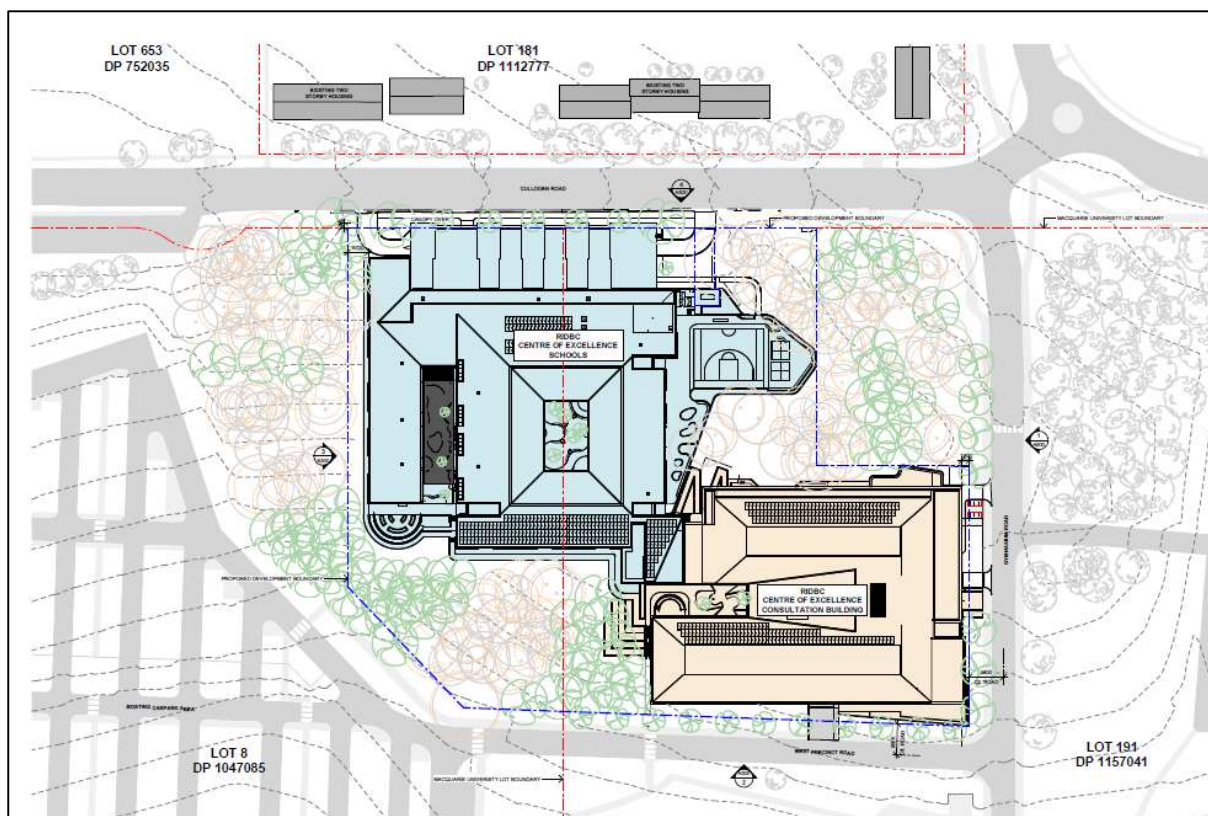
The key components and features of the application (refined in the Response to Submissions (RtS)) are provided in **Table 1** and shown in **Figures 5 to 11**.

**Table 1 | Main Components of the Project**

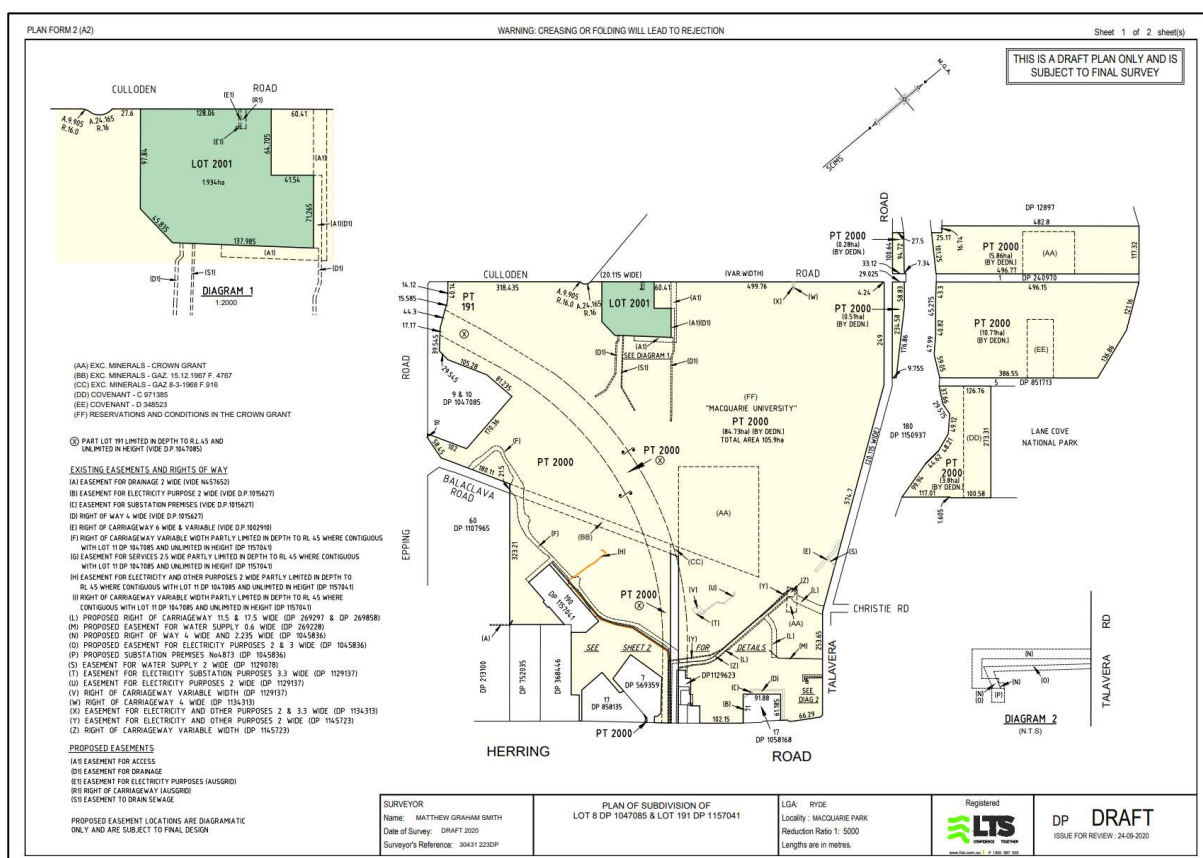
Aspect	Description
<b>Development summary</b>	<ul style="list-style-type: none"> <li>New 1-3 storey development, across two interconnecting buildings, including: <ul style="list-style-type: none"> <li>specialist pre-school (up to 80 children) and primary school (up to 120 students).</li> <li>clinical services building for up to 260 staff with public areas for staff and visitors, Renwick Centre classrooms/conferencing facilities and business hub; resource centre; and medical facilities for various clinical services.</li> </ul> </li> <li>Total of 58 car parking spaces (including 38 in basement level; 18 drop-off/short duration parking spaces for school uses in porte-cochere from Culloden Road; and 2 short-term visitor parking spaces via porte-cochere from Gymnasium Road).</li> <li>Amalgamation and subdivision of lots to create a single lot for the development.</li> <li>Removal of pedestrian path.</li> <li>Associated earthworks, removal of 118 trees, and landscaping.</li> </ul>
<b>Development site area</b>	1.934ha.
<b>Subdivision</b>	<p>Amalgamate the two existing lots and subdivide to create two parcels:</p> <ul style="list-style-type: none"> <li>Proposed lot 2001 – 1.934ha; the development.</li> <li>Proposed lot 2000 – 105.9ha; remain as MQU campus.</li> </ul>
<b>Demolition and excavation</b>	<ul style="list-style-type: none"> <li>Removal of pedestrian path.</li> <li>Earthworks to level site.</li> <li>Approximately 14,000m<sup>3</sup> of cut and 15,600m<sup>3</sup> of fill (with additional fill to be imported).</li> </ul>
<b>Built form</b>	<ul style="list-style-type: none"> <li>One storey pre-school and primary school building Culloden Road</li> <li>Three storey ancillary clinical services building at the corner of Gymnasium and West Precinct Roads.</li> </ul>
<b>Gross floor area</b>	10,472sqm.
<b>Height of building</b>	<ul style="list-style-type: none"> <li>School building maximum height approximately 13.6m (south-western elevation).</li> <li>Clinical services building maximum height approximately 14.97m (West Precinct Road).</li> </ul>
<b>Indicative capacity</b>	<ul style="list-style-type: none"> <li>Pre-school up to 80 children.</li> <li>Primary school up to 120 students.</li> <li>Up to 260 staff.</li> </ul>
<b>Access</b>	<ul style="list-style-type: none"> <li>Basement level accessed from West Precinct Road.</li> <li>Porte-cochere (covered entrance) accessed from Culloden Road.</li> <li>Porte-cochere accessed from Gymnasium Road.</li> </ul>

	<ul style="list-style-type: none"> <li>• Loading dock and waste handling in basement level.</li> <li>• Pedestrian access via Culloden and Gymnasium Roads.</li> </ul>
<b>Car parking</b>	<ul style="list-style-type: none"> <li>• Total of 58 spaces.</li> <li>• 38 spaces (including 1 accessible space) in basement for staff and RIDBC fleet vehicles.</li> <li>• 2 short term visitor spaces in porte-cochere from Gymnasium Road.</li> <li>• 18 short term drop-off/pick-up spaces in porte-cochere from Culloden Road.</li> </ul>
<b>Bicycle parking</b>	<ul style="list-style-type: none"> <li>• Staff bicycle parking in basement.</li> <li>• Visitor bicycle parking adjoining Gymnasium Road porte-cochere.</li> </ul>
<b>Servicing</b>	<ul style="list-style-type: none"> <li>• Installation of new substation.</li> <li>• Installation/augmentation of utilities and services as required.</li> </ul>
<b>Tree removal and landscaping</b>	<ul style="list-style-type: none"> <li>• 118 trees removed.</li> <li>• 169 trees retained.</li> <li>• Additional landscaping proposed (mix of native and non-native species).</li> </ul>
<b>Hours of operation</b>	<ul style="list-style-type: none"> <li>• Pre-school – 8:30am to 4:00pm, Monday to Friday.</li> <li>• Primary school – 8:30am to 3:00pm, Monday to Friday.</li> <li>• Clinical and therapy consultation areas (Renwick Centre) – 9:00am to 5:00pm Monday to Friday, and 9:00am to 1:00pm Saturday.</li> <li>• Workplace areas (Renwick Centre) – 7:00am to 6:00pm Monday to Friday, and 9:00am to 1:00pm Saturday.</li> </ul>
<b>Jobs</b>	205 construction jobs and 300 operational jobs.
<b>Capital Investment Value (CIV)</b>	\$74,513,056.





**Figure 5 | Site Layout (Source: Applicant's supplementary information 2021)**



**Figure 6 | Proposed subdivision (Source: Applicant's EIS 2020)**

## 2.1 Project need and justifications

The Applicant outlined that RIDBC would provide a number of specialist services, including:

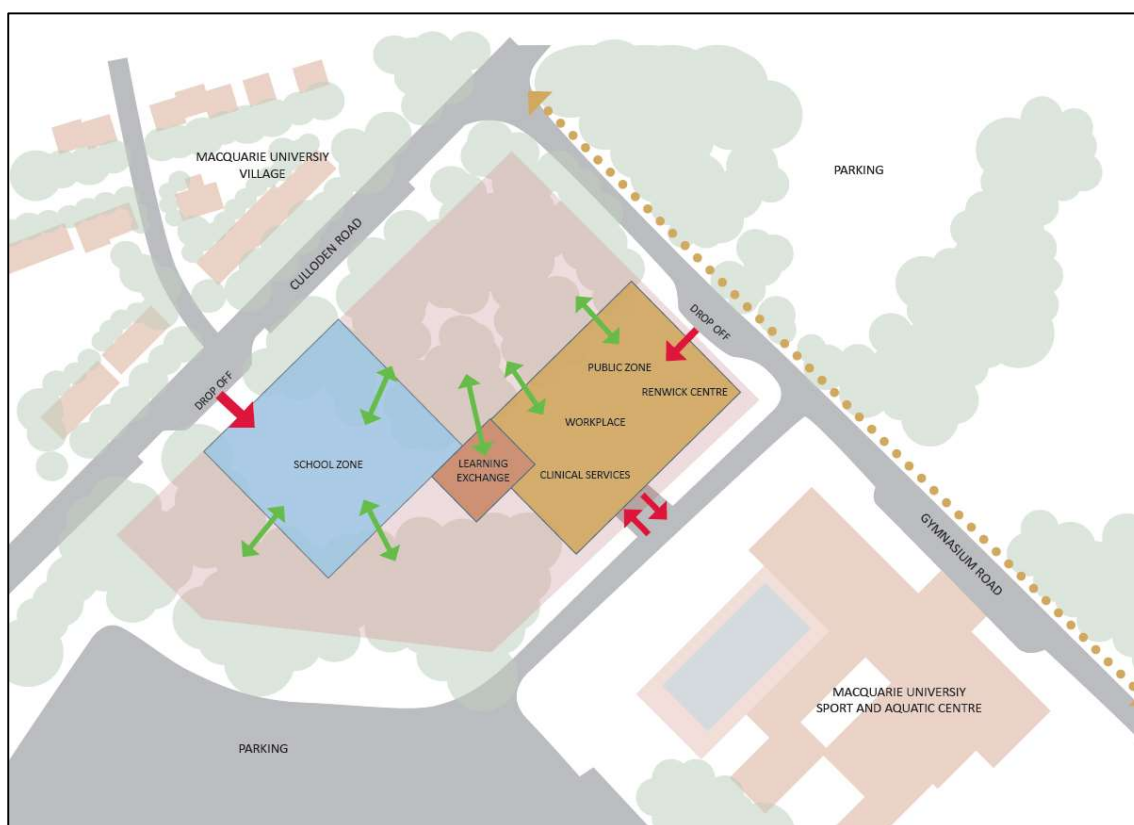
- early intervention.
- allied health and therapy.
- Cochlear implant program.
- schools (pre-school, primary to secondary programs).
- research and professional education.
- school support.
- paediatric audiology.

RIDBC is intending to relocate the school and clinical services activities from the existing site at North Rocks to the proposed purpose-built centre at Macquarie University. The Applicant claims the Centre of Excellence would strengthen the relationship between RIDBC and MQU, benefit the Australian Hearing Hub (at the MQU campus), and reinforce the cluster of research, audiology, and healthcare at MQU, including the global headquarters of Cochlear.

## 2.2 Physical layout and design

The Applicant proposes developing a purpose-built 1-3 storey (including basement level) Centre of Excellence across two interconnected buildings (school zone and workplace), located at the corner of Culloden Road and Gymnasium Road. The development would have a total gross floor area of approximately 10,472sqm and a gross building area of approximately 18,534sqm.

The two interconnected buildings would represent the different functions of RIDBC, but integrate the built form to provide a networked environment for the organisation. The school zone and workplace would combine in a learning exchange area at the centre of the development, shown in **Figure 7**.



**Figure 7** | Site analysis and layout (Source: Applicant's RtS 2021)

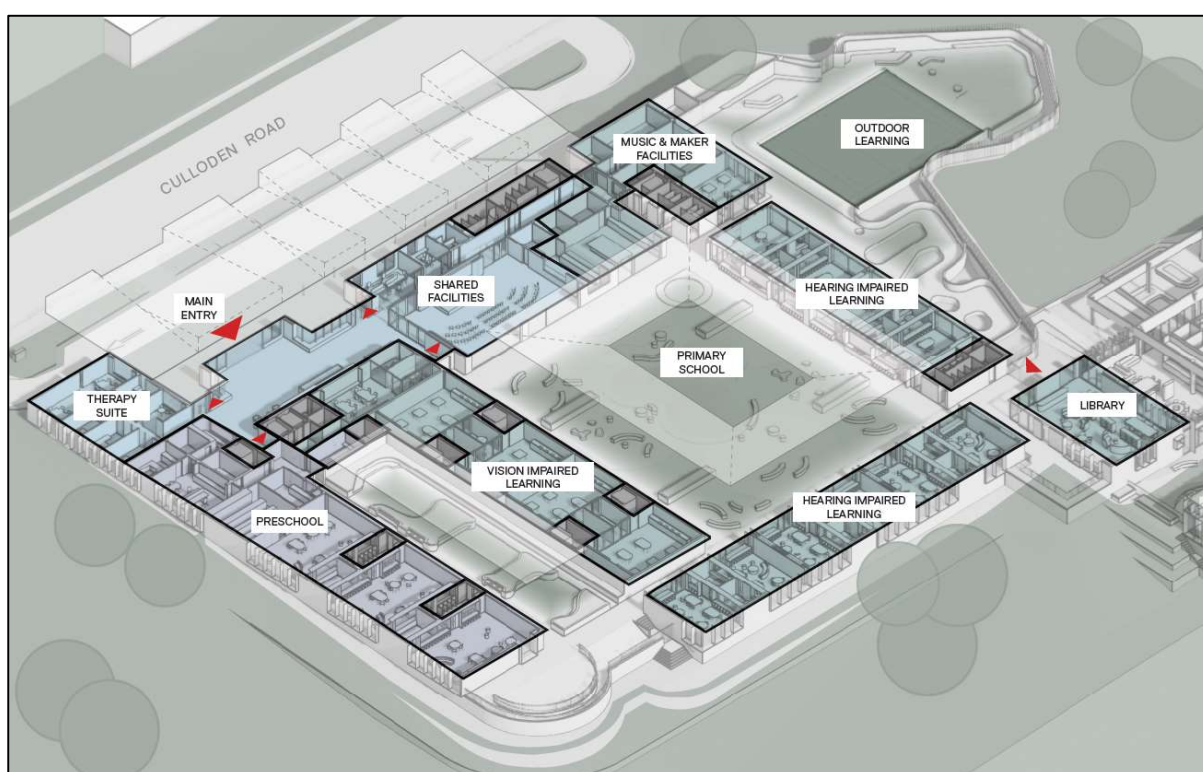
### 2.2.1 Educational

The first building would be one storey and would house the school. It would be located adjacent to Cullogen Road, with a sheltered porte-cochere providing one-way vehicle access. It would include a pre-school and primary school, as shown in **Figure 8**.

The pre-school would contain three rooms and a dedicated outdoor play space (up to 80 children). The primary school would contain four learning rooms for vision-impaired students and ten rooms for hearing-impaired students (up to 120 students) and outdoor play space. The pavilion would also include a shared main entry, therapy and music/maker facilities (spaces where students use tools and raw materials to build and create to encourage innovation), administrative spaces and a library.

Both the pre-school and primary school have been designed to cater for three streams for focus teaching:

- vision impairment.
- hearing impairment for children who use Auslan and English in its written and spoken form.
- hearing impairment for children who are learning to listen and speak.



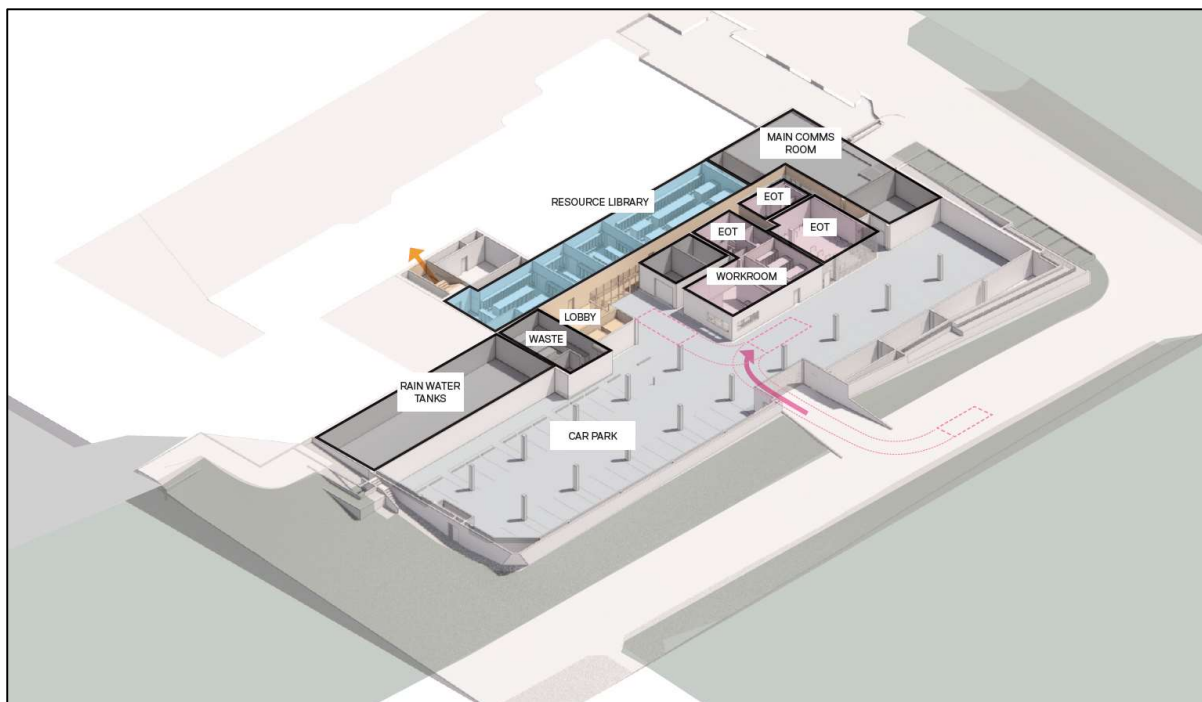
**Figure 8 |** Diagrammatic plan of school (Source: Applicant's RtS 2021)

### 2.2.2 Renwick Centre clinical services

The second building, known as the clinical services workplace or the RIDBC Renwick Centre, would be located along Gymnasium Road and West Precinct Road. This centre would employ approximately 260 RIDBC departmental staff. The Renwick Centre would appear as two storey to Gymnasium Road, and as three storey along West Precinct Road, where a basement level would be provided.

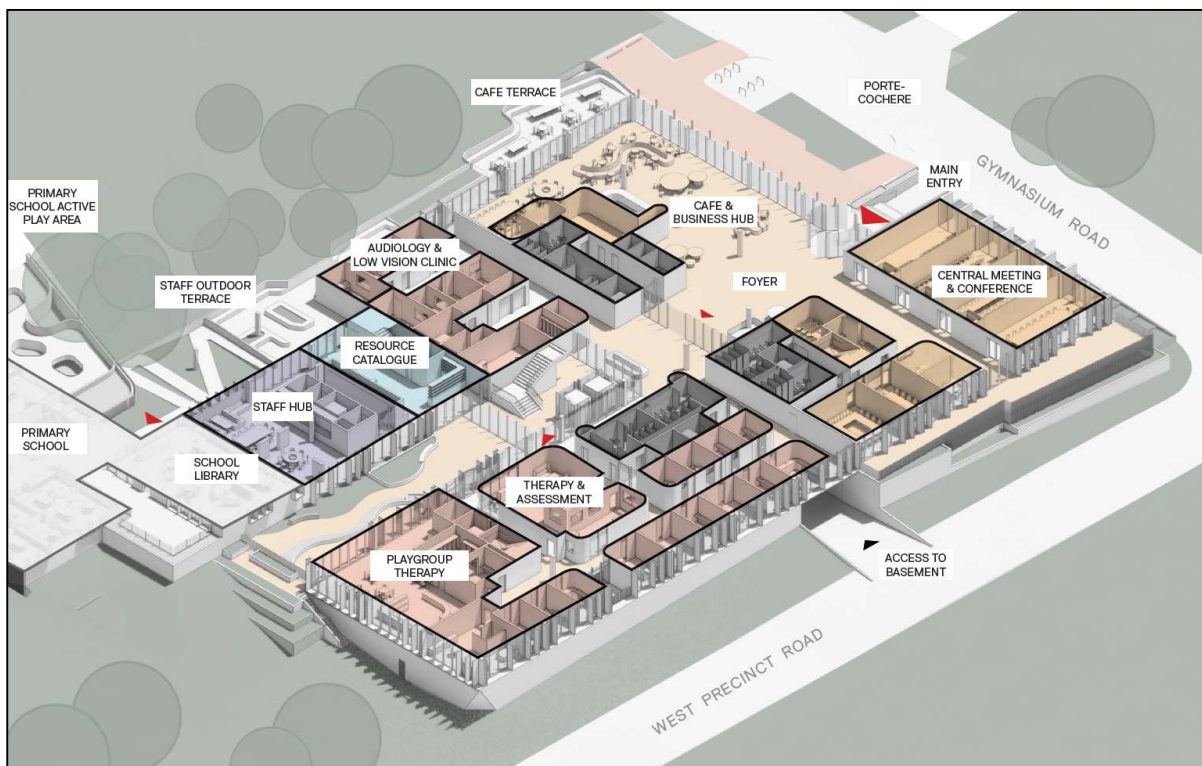
The basement level would include car parking, end-of-trip facilities, waste storage and collection areas, service areas and workrooms, as shown in **Figure 9**.





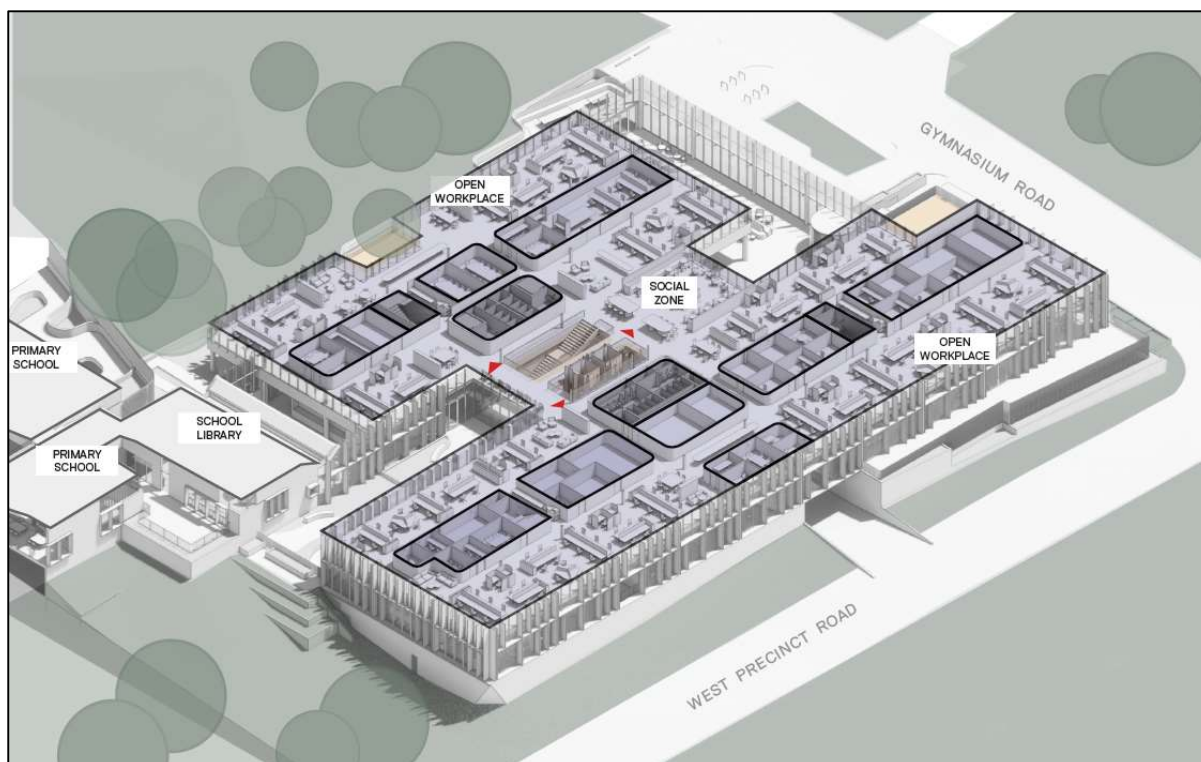
**Figure 9 |** Diagrammatic plan of basement and loading (Source: Applicant's RtS 2021)

The street level from Gymnasium Road would include the lobby and public areas (including café, business hub and terrace), classrooms and conferencing facilities, clinical and therapy consultations rooms, resource catalogue, collaborative workplace areas and a central courtyard, as shown in **Figure 10**.



**Figure 10 |** Diagrammatic plan of Renwick Centre ground level (Source: Applicant's RtS 2021)

The upper level would include open workplaces for staff, as shown in **Figure 11**.



**Figure 11 |** Diagrammatic plan of Renwick Centre level 1 (Source: Applicant's RtS 2021)

## 2.3 Timing

The Applicant has advised that the development would be constructed in a single stage. Works are anticipated to begin in August 2021, with an 18 month construction program to December 2022.

It is anticipated that the development would be open for day 1, term 1 2023.

## 2.4 Related development

On 13 August 2009, the then Minister for Planning approved a concept plan (MP 06\_0016) for the redevelopment of the MQU campus. The concept plan approval comprises the provision of 400,000sqm of floorspace for commercial uses, 61,200sqm of floorspace for academic uses, 3,450 student housing beds, associated infrastructure, car parking and landscaping. The concept plan approval also identified a number of road upgrade works to facilitate the campus redevelopment and required the agreements for these upgrade works to be made with the first application for new commercial floorspace. Consideration of the consistency of the proposed development in accordance with the concept plan is provided at **Appendix C**.

The concept plan approval was modified (MP 06\_0016 MOD 1) on 9 November 2018. The modifications included:

- amended height controls and increased floorspace provisions.
- increased academic floorspace from 61,200sqm to 157,000sqm.
- removal of restrictions capping floorspace within certain precincts and redistribution of floorspace.
- increased student population projections to the year 2036.
- modified terms of approval and Statement of Commitments.
- revised and consolidated Design Excellence Strategy and Urban Design Guidelines.

The proposed development is generally consistent with the controls identified for the north west precinct described in the Design Excellence Strategy and Urban Design Guidelines (see **Section 6.1**).

### 3 Strategic context

The Department considers that the proposal is justified given it is consistent with:

- NSW Premier's and State Priorities to create jobs and improve education results as it would create 205 construction jobs and 300 operational jobs, and provide new specialist education facilities.
- Greater Sydney Commission's (GSC) *Greater Sydney Region Plan - A Metropolis of Three Cities*, as it seeks to provide specialist educational facilities within the strategic centre and health and education precinct of the Macquarie Park Corridor.
- GSC *North District Plan* as it would assist in facilitating health and education precincts and supports a well-connected city.
- NSW Government's *State Infrastructure Strategy 2018-2038*, as it would provide facilities to support modern and technologically enabling learning.
- Transport for NSW's *Future Transport Strategy 2056*, as it would provide educational facilities in an accessible location.
- Macquarie University Campus Master Plan 2014, as it would encourage a broader learning community.

The proposed development would provide investment in the region of approximately \$74.5 million.

## 4 Statutory Context

### 4.1 State significance

The proposal is SSD under section 4.36 (development declared SSD) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as the development is for the purposes of a new school (regardless of capital investment value) pursuant to clause 15 of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011.

The clinical services building is considered ancillary to the school component. Under the *Royal Institute for Deaf and Blind Children Act 1998*, the main object is the advancement in life, to the greatest extent practicable, of deaf and blind children. As such, the primary focus is the school and educational functions. All other functions of RIDBC are supportive in meeting this object. Historically, the other functions have been co-located with the school function.

The Minister for Planning and Public Spaces (the Minister) is the consent authority under section 4.5 of the EP&A Act.

In accordance with the Minister's delegation to determine SSD applications, signed on 9 March 2020, the Executive Director, Infrastructure Assessments, may determine this application as:

- the relevant Council has not made an objection.
- there are less than 50 public submissions in the nature of objection.
- a political disclosure statement has not been made.

### 4.2 Permissibility

The site is identified as being located within the B4 – Mixed Use under Ryde Local Environmental Plan 2014 (RLEP 2014). The school component is best defined as an educational establishment. The Renwick Centre is best defined as a health services facility. Education establishments and health services facilities are permitted with consent in the B4 zone.

Therefore, the Minister or a delegate may determine the carrying out of the development.

### 4.3 Other approvals

Under section 4.41 of the EP&A Act, a number of other approvals are integrated into the SSD approval process, and consequently are not required to be separately obtained for the proposal.

Under section 4.42 of the EP&A Act, a number of further approvals are required, but must be substantially consistent with any development consent for the proposal (e.g. approvals for any works under the *Roads Act 1993*).

The Department has consulted with the relevant public authorities responsible for integrated and other approvals, considered their advice in its assessment of the project, and included suitable conditions in the recommended conditions of consent.

### 4.4 Mandatory Matters for Consideration

#### 4.4.1 Environmental planning instruments

Under section 4.15 of the EP&A Act, the consent authority is required to take into consideration any environmental planning instrument (EPI) that is of relevance to the development the subject of the development application. Therefore, the assessment report must include a copy of, or reference to, the provisions of any EPIs that substantially govern the project and that have been considered in the assessment of the proposal.

The Department has undertaken a detailed assessment of these EPIs in **Appendix B** and is satisfied the application is consistent with the requirements of the EPIs.

#### 4.4.2 Objects of the EP&A Act

The objects of the EP&A Act are the underpinning principles upon which the assessment is conducted. The statutory powers in the EP&A Act (such as the power to grant consent/approval) are to be understood as powers to advance the objects of the legislation, and limits on those powers are set by reference to those objects. Therefore, in making an assessment, the objects should be considered to the extent they are relevant. A response to the objects of the EP&A Act is provided at **Table 22**.

**Table 2 | Response to the objects of section 1.3 of the EP&A Act**

Objects of the EP&A Act	Consideration
(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,	The proposal seeks to develop land within an existing university campus and does not detrimentally affect the State's natural and other resources.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	<b>Section 4.5</b> considers the proposal against the principles of ecologically sustainable development (ESD).
(c) to promote the orderly and economic use and development of land,	The proposal would be an orderly and economic use and development of the land as it would provide for a new school on an established educational campus.
(d) to promote the delivery and maintenance of affordable housing,	Not applicable.
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	The proposal would protect the environment (see <b>Section Error! Reference source not found.</b> ).
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	No Aboriginal objects, sites or areas of archaeological sensitivity were identified within the site or would be impacted by the proposal.  The proposal is sufficiently separated from the locally significant Macquarie University (ruins).
(g) to promote good design and amenity of the built environment,	The proposal promotes good design and amenity (see <b>Section 6</b> ).
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The proposal would promote proper construction and maintenance of buildings subject to recommended conditions of consent.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	The Department publicly exhibited the proposed development (see <b>Section 5.1</b> ), which included consultation with Council and other public authorities and consideration of their responses.



Objects of the EP&A Act	Consideration
(j) to provide increased opportunity for community participation in environmental planning and assessment.	The Department publicly exhibited the proposal as outlined in <b>Section 5.1</b> , which included notifying adjoining landowners and displaying the proposal on the Department's website during the exhibition period.

## 4.5 Ecologically sustainable development

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

- the precautionary principle.
- inter-generational equity.
- conservation of biological diversity and ecological integrity.
- improved valuation, pricing and incentive mechanisms.

The development proposes ESD initiatives and sustainability measures including:

- high performance glazing.
- passive solar heating and cooling principles.
- energy efficient heating, cooling and ventilation systems.
- efficient artificial lighting systems.
- time switch controls and motion sensors.
- energy efficient appliances with higher energy stars (within 1 star of the highest energy efficient rating available on the market).
- water efficient fixtures and fittings in accordance with the Australian Government's Water Efficiency Labelling Scheme (WELS) and flow restrictors.
- adhesives, sealants, flooring and paint products that contain low or no Volatile Organic Compounds (VOCs) and engineered timber products to contain low or no formaldehyde.
- 3% of Project Sustainability Value (PSV) over Project Contract Value (PCV) to be targeted for sustainable products.
- waste management plan to minimise waste generation, maximise reuse, recycling and reprocessing construction waste and minimise volume disposed in landfill.
- water sensitive urban design (WSUD) initiatives including indigenous low water usage plants to increase stormwater retention, decrease total suspended solids and mitigate effects of urban heat island.

The Macquarie University concept approval requires a minimum 4 star Green Star rating and a minimum 4.5 star National Australian Built Environmental Rating System (NABERS) rating.

As the development is not a stand-alone commercial development the Applicant concluded that seeking compliance with portions of the overall floor space would be impractical. As such, the development is not seeking a formal Green Star rating. However, the proposal has been benchmarked against Green Star Design As-Built v1.3 Rating System, with a goal of achieving equivalent to a 4.5 star Green Star rating. A minimum 50 points is required for 4-star equivalency, and a minimum 60 points for 5-star equivalency. The development would achieve 58 stars.

A 4.5 star NABERS rating would be achieved for the project according to the ESD report submitted with the EIS.

The Department has recommended conditions of consent requiring evidence that the proposal achieves the equivalent of the 4.5 star Green Star rating and the 5 star NABERS rating.

The Department has considered the proposed development in relation to the ESD principles. The precautionary and inter-generational equity principles have been applied in the decision-making process via a thorough and rigorous assessment of the environmental impacts of the proposed development. The proposed development is consistent with ESD principles as described in section

7.5 of the Applicant's EIS, which has been prepared in accordance with the requirements of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation).

Overall, the proposal is consistent with ESD principles and the Department is satisfied the proposed sustainability initiatives would encourage ESD in accordance with the objects of the EP&A Act.

## 4.6 Environmental Planning and Assessment Regulation 2000

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

## 4.7 Planning Secretary's Environmental Assessment Requirements

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

## 4.8 Section 4.15(1) matters for consideration

**Table 33** identifies the matters for consideration under section 4.15 of the EP&A Act that apply to SSD in accordance with section 4.40 of the EP&A Act. The table represents a summary for which additional information and consideration is provided in **Section 6** and relevant appendices or other sections of this report and EIS.

**Table 3** | Section 4.15(1) matters for consideration

Section 4.15(1) Evaluation	Consideration
(a)(i) any environmental planning instrument	Satisfactorily complies. The Department's consideration of the relevant EPIs is provided in <b>Appendix B</b> .
(a)(ii) any proposed instrument	The Department's consideration of the relevant draft EPIs is provided in <b>Appendix B</b> .
(a)(iii) any development control plan (DCP)	Under clause 11 of the SRD SEPP, DCPs do not apply to SSD. Furthermore, the site is guided by a concept plan and consequential plans and guidelines. Consideration has been given to the concept plan at <b>Appendix C</b> .
(a)(iiia) any planning agreement	Not applicable.
(a)(iv) the regulations <i>Refer Division 8 of the EP&amp;A Regulation</i>	The application satisfactorily meets the relevant requirements of the EP&A Regulation, including the procedures relating to applications (Part 6 of the EP&A Regulation), public participation procedures for SSD and Schedule 2 of the EP&A Regulation relating to EIS.
(b) the likely impacts of that development including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	Appropriately mitigated or conditioned (see <b>Section 6</b> ).
(c) the suitability of the site for the development	The site is suitable for the development as discussed in <b>Section 3, 4 and 6</b> .

Section 4.15(1) Evaluation	Consideration
(d) any submissions	Consideration has been given to the submissions received during the exhibition period. See <b>Section 5</b> and <b>6</b> .
(e) the public interest	See <b>Sections 6</b> and <b>7</b> .

## 4.9 Biodiversity Development Assessment Report

Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) requires all applications for SSD to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values.

The Applicant submitted a BDAR waiver request to the Department on 3 April 2020. The accompanying biodiversity assessment submitted with the BDAR waiver request did not map any threatened species, populations or communities within the development area. The assessment found that the vegetation present does not conform to either of the two threatened ecological communities known to occur within the locality, and no areas of high or outstanding biodiversity value occur within the subject site.

Correspondence was issued by the Department on 27 April 2020 outlining the requirement for a BDAR to be waived. The proposal was reviewed against the test of significance under sections 1.5 and 7.3 of the BC Act and clause 1.4 of the Biodiversity Conservation Regulation 2017 and it was determined that the proposed development is not likely to have any significant impact on biodiversity values. As such, the application did not need to be accompanied by a BDAR and a waiver under section 7.9 was granted on 27 April 2020.

## 5 Engagement

### 5.1 Department's engagement

In accordance with Schedule 1 of the EP&A Act, the Department publicly exhibited the application from 19 November 2020 until 16 December 2020 (28 days). The application was exhibited on the Department's website. Adjoining landholders and relevant authorities were notified in writing. Department representatives visited the site to provide an informed assessment of the development.

### 5.2 Summary of submissions on EIS

The Department received a total of 10 submissions, all from public authorities. An additional three submissions from public authorities were received in response to the Applicant's Response to Submissions (RtS).

### 5.3 Public authority submissions

A summary of submissions received from public authorities is outlined in **Table 4** and copies of the submissions may be viewed at **Appendix A**.

**Table 4 | Summary of public authority submissions**

#### City of Ryde Council (Council)

Council did not object to the proposal, however raised concerns in relation to:

- removal of trees along Culloden road frontage.
- the Culloden Road frontage is dominated by vehicular access, circulation and parking areas and visual impact is to be mitigated.
- number of vehicular access points should be reduced to one off Culloden Road.
- maintain a minimum setback to Culloden Road of 15m and retain existing trees.
- provide a forecourt fronting Culloden Road with seating and public art installation.
- requested traffic count of vehicle movements per day be undertaken 6 months after centre is opened and fully operations.
- demonstration that adequate swept paths can be provided into basement and porte-cochere areas for relevant vehicles to enter and exit in forward direction.
- review of parking areas required to ensure safe pedestrian access and so doors open inward to avoid potential hazards.
- clarification of largest vehicle to access the basement car park.
- provision of a queuing analysis to determine if the length of porte-cochere is adequate.
- provision of an operational traffic management plan detailing measures to effectively manage the safety and efficiency of student pick-up and drop-off.
- kerb and gutter and full reconstruction of half road pavement along Culloden Road frontage.

Council also provided recommended conditions of consent.

#### Transport for NSW (TfNSW)

TfNSW noted the following:

#### **City of Ryde Council (Council)**

- the proposed development would generate additional pedestrian movements and pedestrian safety is to be considered.
- requested that the Applicant updates the Green Travel Plan to increase mode share of public transport and active transport for staff, students and visitors, and the plan should be prepared in consultation with TfNSW.
- requested that a Construction Pedestrian Traffic Management Plan be prepared prior to the issue of a construction certificate, detailing construction vehicle routes, truck numbers, hours of operation, access arrangements and traffic control.

#### **NSW Rural Fire Service (RFS)**

The RFS advised there are no specific concerns with the proposal relating to bush fire protection.

#### **NSW Environment Protection Authority (EPA)**

The EPA noted the following:

- the proposal does not appear to require an environment protection licence under the *Protection of the Environment Operations Act 1997*.
- the proposal is not being undertaken by or on behalf of a NSW Public Authority, nor are the proposed activities other activities for which the EPA is the appropriate regulatory authority.
- the EIS should estimate waste generation volumes and identify waste streams and disposal options for all waste (including liquid waste, wastes classified as hazardous and wastes containing radiation).
- waste management should consider prevention of pollution, minimising resource use, improving recovery of materials and ensuring appropriate disposal.
- an assessment of land contamination must determine whether the land is suitable for the proposal or will require remediation.

#### **Environment, Energy and Science Group (Department of Planning, Industry and Environment)**

EESG noted:

- a Biodiversity Development Assessment Report (BDAR) waiver was approved on 24 April 2020.
- all relevant flood issues have been adequately addressed and there are no outstanding requirements in terms of flood risk management.

#### **Heritage NSW, Department of Premier and Cabinet**

Heritage NSW noted:

- no Aboriginal objects were located in the proposal area through the assessment that has been undertaken with the proposal.
- the Applicant's assessment identified cultural significance of the nearby Lane Cove River and importance of early Aboriginal and settler interaction at the Field of Mars Common.

#### City of Ryde Council (Council)

- recommended an Aboriginal Cultural Heritage Interpretation Plan be developed and implemented for the project in consultation with the registered Aboriginal parties.

#### Sydney Water

Sydney Water provided the following comments:

- existing pressures and flows are adequate to service the proposed development with regard to water servicing.
- existing sewer should have capacity to service the development, but extensions may be required.
- a Section 73 Compliance Certificate under the *Sydney Water Act 1994* must be obtained.

#### Ausgrid

Ausgrid:

- noted the additional load requirement by installation of new substation.
- recommended the proponent make the necessary connection application to Ausgrid as soon as possible.

#### Sydney Metro

Sydney Metro advised that the development is not in proximity to the Metro North West Line rail corridor and have no comments.

#### Fire and Rescue NSW (FRNSW)

FRNSW noted:

- risk and hazard aspect of the proposal is appropriate.
- recommended a comprehensive Emergency Response Plan (ERP) is developed for the site, that addresses foreseeable on-site and off-site fire events and other emergency incites or potential hazmat incidents and details appropriate risk control measures.
- recommended that, once operational, the operator contacts the relevant local emergency management committee and an emergency services information package (ESPI) be developed.

## 5.4 Response to submissions

Following the exhibition of the application, the Department placed copies of all submissions received on its website and requested the Applicant respond to the issues raised.

On 23 February 2021, the Applicant provided a Response to Submissions (RtS) (**Appendix A**) on the issues raised, which included the following amendments:

- roof of the main building was updated to maintain two plant areas with access hatches from below; these plant areas now drain onto the north and south skillions.



- roof of the school is substantially the same with the exception of the shared hall which no longer pops upwards, with the main 10 degree skillion continuing throughout this section of the pavilion. Changes to the roof were proposed for aesthetic reasons.
- landscaping shown on architectural plans has been updated to be consistent with the current landscaping design, in particular the primary school covered outdoor learning area and central courtyard of main building (the planter layout in the pre-school courtyard has also been adjusted slightly to ensure required outdoor learning spaces for children are met).
- swales to the south of the site are now shown on architectural plans.
- vehicle entry point off West Precinct Road and extent of the basement to the west was adjusted.
- workplace layouts have been reconfigured to best capture the RIDBC's current layout preference.

The RtS was made publicly available on the Department's website and referred to public authorities. An additional three submissions were received from public authorities, including Council, TfNSW, and Heritage NSW. A summary of the issues raised in the submissions is provided at **Table 5** and copies of the submissions may be viewed at **Appendix A**.

**Table 5 | Summary of public authority submissions to the RtS**

### Council

Council did not object to the proposal, and recommended conditions relating to:

- traffic management.
- design and construction standards.
- public utilities and service alterations.
- works on public roads.
- construction staging.
- public areas and restoration works.
- land boundaries and cadastral surveys.
- public domain improvements and public domain plan.
- public infrastructure works.
- footpaths and gutter crossover.
- assessment of engineering plans.
- pre-construction inspections.
- pre-construction dilapidation report.
- construction pedestrian and traffic management plan.
- road activity, road opening and work zone permits.
- elevated tower, crane, crane airspace or concrete pump permits
- hoarding permit.
- skip bins on nature strip.
- temporary footpath crossings.
- Ryde Traffic Committee Approval.
- hold points during constriction.
- engineering certification.
- adjustment or relocation of underground facilities.
- road occupancy licence.
- vehicular access, off-street car parking and servicing areas.

## Council

- swept paths.
- signage and line marking.
- compliance certificates.
- street lighting.
- works-as-executed plans.
- supervising engineer final certificate.
- registered surveyor and engineer final certificate.

## TfNSW

TfNSW did not object to the proposal and recommended conditions be imposed requiring:

- a Construction Pedestrian Traffic Management Plan be submitted to Council for approval, prior to the issue of a construction certificate.
- the final Green Travel Plan be provided to TfNSW for endorsement prior to the issue of the first occupation certificate.

## Heritage NSW

Heritage NSW noted it has no further comment to make and recommended a condition of consent requiring an Aboriginal heritage interpretation plan.

In response to submissions to the RtS, the Applicant provided additional supplementary information to clarify unencumbered spaces for the pre-school to ensure compliance, and a number of architectural design amendments. The architectural design amendments included:

- a new sprinkler valve room off the school porte-cochere and subsequent reconfigurations (including relocation of garbage room, garden store and main switchboard room).
- relocation of the basement stairs leading to the ground floor, and minor reconfiguration of basement layout.
- minor floor plan reconfigurations on level 1 of the Renwick Centre.
- indicative locations of photovoltaic panels on roofs.
- changes to the pre-school garden beds in outdoor play areas.
- minor adjustments of landscaping, largely to reduce number and extent of retaining walls and replacement with berms and earthworks.

## 6 Assessment

The Department has considered the EIS, the key issues, and the Applicant's RtS in its assessment of the development. The Department considers the key issues are:

- built form, urban design and amenity.
- transport and traffic.
- noise and vibration.
- tree removal.

These issues are discussed in the following sections, other issues considered during the assessment are discussed at **Section 6.5**.

### 6.1 Built form, urban design and amenity

The proposed development has been designed to comply with built form controls of the approved concept plan (as modified) and the Macquarie University Design Excellence Strategy and Urban Design Guidelines (MQU UDG), including the built form, access and landscaping provisions. The site is identified as Lot B03 in the MQU UDG.

The proposal complies with the GFA provisions for the campus under the concept plan for academic and commercial uses. The proposal would deliver an additional 6,108sqm of GFA for academic and related purposes, and 4,364sqm for commercial uses. Following the proposed development, a total of approximately 101,138sqm would remain in the cap for academic use and approximately 358,034sqm would remain in the cap for commercial use.

#### 6.1.1 Building height

The application proposes the construction of two pavilions that vary in height across the site, responding to topography and slope.

For the school pavilion, the building would extend to RL85.657 (approximately 8.74m to Culloden Road and 13.6m to existing university car park). The school pavilion would present as single storey with voids and high roof heights for awnings over porte-cochere.

The elevation of the school building along Culloden Road is shown in **Figures 12 and 13**.



**Figure 12** | School building as viewed from Culloden Road (Source: Applicant's supplementary information 2021)

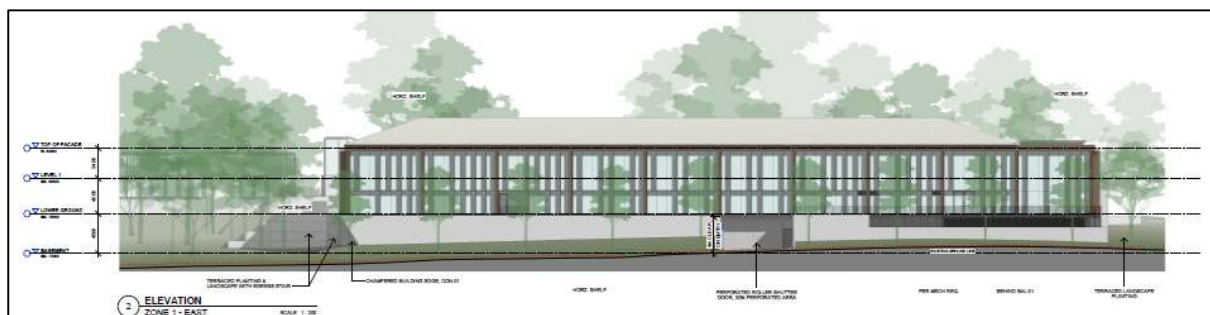


**Figure 13 | Artist's impression of school building from Culloden Road (Source: Applicant's supplementary information 2021)**

The elevations of the Renwick Centre can be seen in **Figures 14 to 16**.



**Figure 14 |** Renwick Centre as viewed from Gymnasium Road (Source: Applicant's supplementary information 2021)



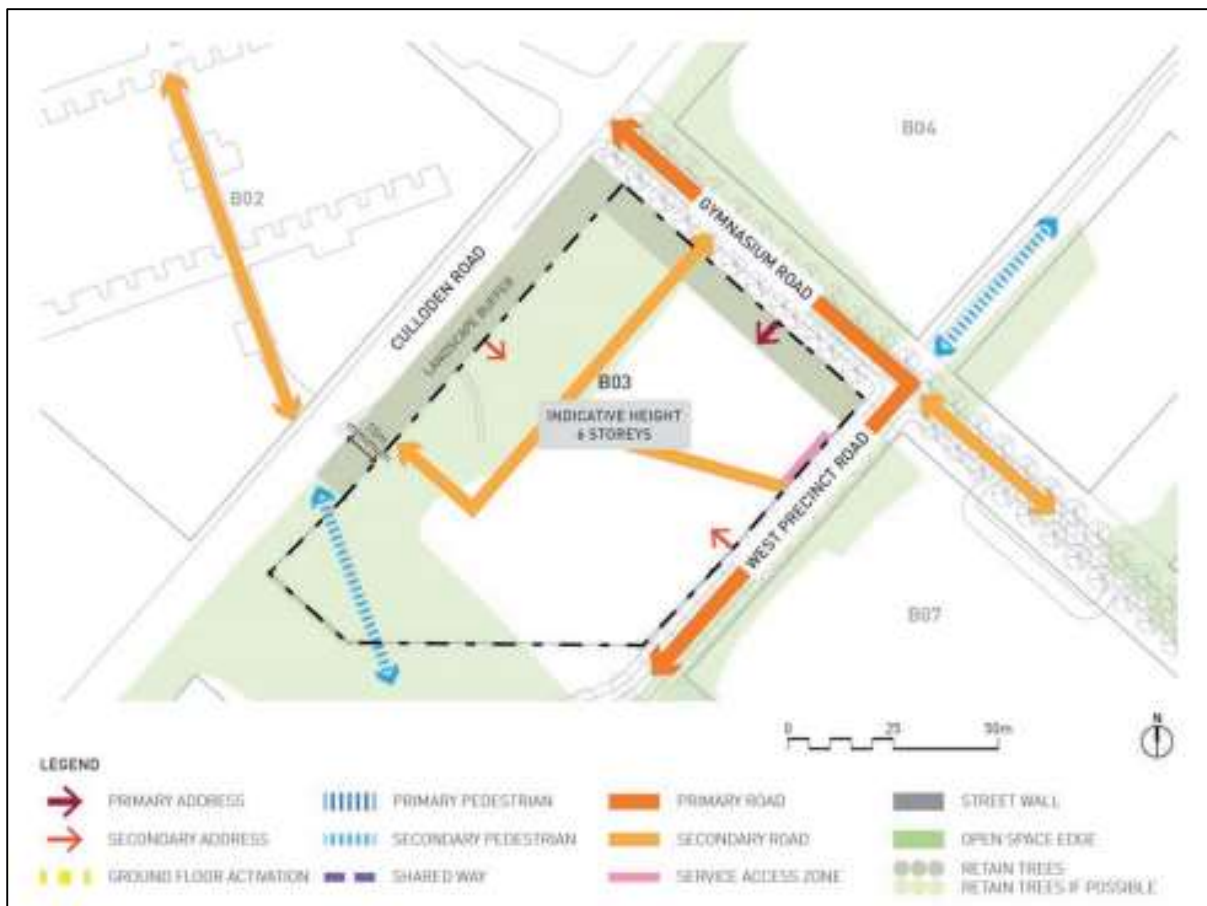
**Figure 15 | Renwick Centre as viewed from West Precinct Road (Source: Applicant's supplementary information 2021)**





**Figure 16 |** Artist's impression of Renwick Centre from corner of West Precinct Road and Gymnasium Road (Source: Applicant's EIS)

The highest point of the development, including rooftop plant, would be RL 87.5. This is generally consistent with the height controls established for the lot, being six storeys for Lot B03 in the MQU UDG (Figure 17).



**Figure 17 |** MQU UDG Lot Controls showing indicative height (Source: MP 06\_0016 MOD 1)

The Department considers the height of the proposed development is appropriate. The height that presents inwards to the university campus is of a comparable scale to other university buildings and does not unreasonably overshadow or dominate visually. The height along Culloden Road would provide an appropriate transition to the surrounding public realm.

### 6.1.2 Urban design

The approved concept plan (as modified) establishes the following design principles that would be relevant for redevelopment of the site.

#### Concept Plan

##### *Built form*

- definition of major spaces by built form.
- reinforcement of main circulation spines with buildings that overlook the spaces.
- activation of ground levels on major spaces with retail, cafes or student services.
- buildings to have a clear address to either a road or a main open space.
- high turnover spaces in the Academic Core on the lower three floors.
- increase the height in the Academic Core up to eight storeys to contain the size and increase the vitality of the core.
- preservation of solar access to key open spaces.
- improved security and surveillance.

##### *Architectural expression*

- embody environmentally sensitive design principles, including building façades that are environmentally responsive (i.e. shading to northern, eastern and western facing windows).
- use colours and materials that are consistent and/or responsive to the design palette of existing materials, colour and finishes and use a common language for the precinct.
- develop a comprehensive and unified lighting strategy.
- develop a strong landscape setting.

The MQU UDG also identifies principles and guidelines for the campus that seek to extend the existing geometric layout, reinforce the open space network, define major spaces and circulation spines by built form, ensure a sense of place is maintained, reinforce important vistas, and prioritise pedestrian amenity in the design of the movement network.

The key directions for Lot B03 are as follows (see **Figure 17**):

- indicative height of six storeys.
- the lot is suitable to support multiple buildings.
- primary address indicatively on Gymnasium Road, with potential secondary address along Culloden Road.
- service access from West Precinct Road.
- consider opportunities for at-grade car parking as appropriate for future uses.
- interface with Gymnasium Road Gateway and landscape buffer along Culloden Road.
- review and retain significant trees if possible.
- street wall along Gymnasium Road and Culloden Road.



The Applicant's architectural design report considered the design principles established in the concept plan and MQU UDG. The urban design features that have been incorporated into the design to respond to those principles are:

- working with natural topography of site to minimise disruption of the green corridor.
- maintaining maximum height of buildings below indicative six storeys.
- less massing and site coverage to promote connectivity.
- the provision of visual corridors into the main campus and prioritising natural landscape elements.
- access points from Gymnasium Road and Culloden Road and service vehicle access via West Precinct Road.
- landscape buffers maximised where possible.
- security lines responding to the fall of the ground plane.
- prioritising existing trees as an asset where possible.
- provision of interconnecting pavilion-style development to appear as multiple buildings and reduce perceived bulk.

The Government Architect NSW (GA NSW) reviewed the original design as proposed in the EIS and recommended further consideration in relation to:

- existing pedestrian and cycling access through the site and linkages to student housing which has not been retained.
- definition of the main entry.

The Applicant provided design amendments in the RtS, which were referred to the GA NSW who were satisfied that the revised design addressed the concerns raised. GA NSW outlined that the integration of the building with the landscape is appropriate. There is a blank street wall at the corner of Gymnasium Road and West Precinct Road, but the planters would offset the impact. Overall, the material palette's emphasis on natural and raw materials would be in keeping with the campus and the bushland setting. The Department believes the proposed architectural and landscape designs are appropriate for the site and the proposal is consistent with the design principles of the concept plan.

The Department considers the revised design also addresses the lot controls for the site. Additionally, the external appearance of the building and the proposed interface with the public realm is considered appropriate and acceptable.

## **6.2 Traffic and transport**

A Transport Impact Assessment (TIA) was submitted with the EIS to provide assessments of traffic generation and car parking provision.

### **6.2.1 Vehicular access**

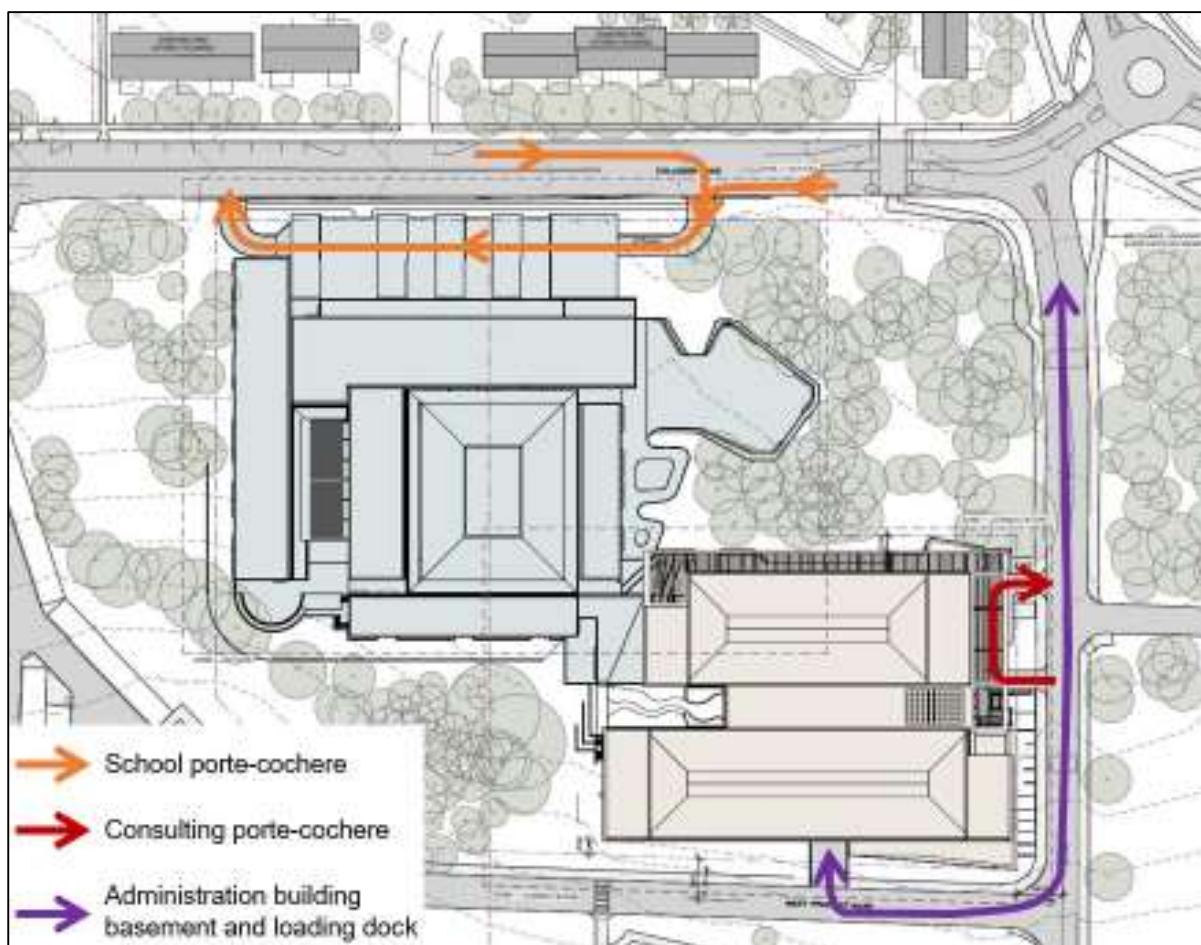
Vehicular access for the site would be provided as follows:

- Culloden Road porte-cochere – includes two driveways (angled at 90° to the kerb) and facilitates a one-way flow of traffic for the purposes of dropping off and picking up students. Traffic movements from all directions in and out are proposed, and all vehicles can enter and exit in a forward direction. The porte-cochere includes 18 parking spaces (eight are angled at 45° to the driveway, 10 are parallel to the driveway). The driveway and eight angled spaces have been specifically designed to accommodate a 12 seater minivan (up to 5.915m in

length, 1.95m in width, and 2.28m in height), being 3.2m wide and 6m long. Ten parallel spaces are 2.45m wide and 5.9m long. The driveway is 4.3m wide.

- Gymnasium Road porte-cochere – includes two driveways (angled at 90° to the kerb) and facilitates a one-way flow of traffic for the purposes of dropping off and picking up children attending the Renwick Centre and, in some instances, facilitating testing of children while they remain in the car. All vehicles can enter and exit in a forward direction. The porte-cochere includes two short term visitor spaces located perpendicular to the driveway.
- Basement and loading dock – access to the basement is via West Precinct Road. The basement entrance has a clearance height of 3.8m, while inside has a clearance height of 4m. The basement would house Renwick Centre parking spaces and fleet vehicles. The basement also includes a loading dock for deliveries and would be used by a private waste contractor.

The access arrangements are shown in **Figure 18**.



**Figure 18** | Vehicular access arrangements (Source: Applicant's EIS)

### 6.2.2 Parking areas and design

The application includes detailed plans and swept path analyses to ensure that the layout and dimensions of the access and parking areas are satisfactory.

Swept paths confirmed that the Culloden Road porte-cochere is appropriately designed for a 12 seater minivan (up to 5.915m long), and the Gymnasium Road porte-cochere is appropriately designed for a car or van with a maximum length of 5.2m. Swept paths also confirmed that the

basement is appropriately designed for a garbage truck up to 9.9m in length and 3.5m in height, including clearance heights and ability to enter and exit the basement in a forward direction.

Accessible space in the basement would include a dedicated space and an adjoining shared space with bollard. Blind aisles have been extended and additional space would be provided where the side of a space adjoins a wall or column.

Pedestrian safety has been considered throughout the design of parking areas. The Applicant has stated that the separation of the school and Renwick Centre seeks to prioritise student pedestrian safety by minimising opportunities for interaction (through physical separation) and simplifying the use of each porte-cochere so that spaces and uses are clearly defined.

The Culloden Road porte-cochere would be column-free to assist with sightlines and pedestrian safety.

The Department has included appropriate conditions of consent to ensure compliance with Australian Standard AS2890.1 and considers the design of parking areas to be satisfactory.

### **6.2.3 Car parking supply**

The development proposes a total of 58 parking spaces:

- 38 spaces (including 1 accessible space) in basement for staff and RIDBC fleet vehicles.
- 2 short term visitor spaces in porte-cochere from Gymnasium Road (Renwick Centre).
- 18 short term drop-off/pick up spaces in porte-cochere from Culloden Road (school).

The MQU concept approval caps a maximum of 10,800 parking spaces across the campus. The development proposes 58 parking spaces. Although the development is run as a single organisation, a gross floor area (GFA) breakdown attributes approximately 75% of GFA to the school purpose, and approximately 25% to the commercial premises. If this breakdown is applied to the parking spaces, 43.5 spaces would be for the school purpose and 14.5 spaces would be for the commercial use. These are generally consistent with the concept approval. As such, the Department considers the parking supply to be appropriate.

### **6.2.4 Bicycle parking supply**

The development proposes 15 bicycle spaces in the basement for staff, and eight bicycle spaces in the Gymnasium Road porte-cochere for visitor use.

End-of-trip facilities would be located in the basement for use by staff, including showers, toilets and lockers.

The Department considers the end-of-trip facilities and bicycle parking supply is satisfactory.

### **6.2.5 Service vehicles**

Service vehicles would enter the basement from West Precinct Road to access on-site loading areas. This is consistent with MQU UDG's indicative location of service vehicle entry (see **Figure 17**).

The basement has been designed with an entry clearance height of 3.8m and a clearance height of 4m within.

The basement and loading area have been designed to accommodate a medium rigid vehicle and a garbage truck up to 9.9m in length.

It is expected that smaller delivery vehicles, including courier vans, would access the loading bay more commonly than larger delivery trucks. For loading and unloading, medium rigid vehicles are expected to access the site once a day. In addition, it is expected that there would be between 10 and 15 movements per day by utility vehicles, vans, and small rigid vehicles.

Emergency vehicles would access the site predominantly via West Precinct Road, however small emergency vehicles can also utilise the Culloden Road or Gymnasium Road porte-cocheres.

The Department considers the design of the parking and access areas appropriate for service vehicles.

#### **6.2.6 Operational traffic**

##### *Staff*

Once operational, the development would include approximately 300 staff across the pre-school, primary school and Renwick Centre.

The Transport Impact Assessment (TIA) includes a travel mode share forecast for staff attending the site. In accordance with the concept approval, a non-car mode share of 62% is adopted (thus 38% by car). Due to the proposed operating hours and nature of the business, staff would attend and leave the site at various times throughout the morning and afternoon, with 8:00am to 9:00am and 5:00pm to 6:00pm being the road network peak hours.

The following mode share is forecast for staff:

- 35% Sydney Metro.
- 15% bus.
- 38% car (driver).
- 5% walked only.
- 2% bicycle.
- 5% car (passenger).

Based on the above, the TIA estimates the following trip generation forecasts for staff.

- AM road network peak hour (8:00am to 9:00am) – 57 vehicle trips.
- PM road network peak hour (5:00pm to 6:00pm) – 57 vehicle trips.

##### *Primary school*

The existing RIDBC primary school has been used to assist with specific travel data for the TIA.

The Applicant outlines that for the existing school, a high proportion of students are picked up and transported to the site as part of the NSW Government's Assisted School Travel Program (ASTP). The ASTP plays a significant role in meeting the needs of eligible students with disability by providing free specialised transport to and from school. As such, the number of students who travel to school by private vehicle would be reduced. Students also arrive and depart across mixed time periods due to the school's operational requirements, distributing traffic movements over a wider spread of time when compared to typical schools. No out-of-school-hours (OOSH) placements are proposed.

The TIA outlines that at the existing school, only between 10 and 15 students arrive by private vehicle, with the remaining 70 students arriving in assisted travel. Based on the specific travel characteristics of these school students, the following trip generation forecasts have been developed for the proposed school, with capacity for 120 students.

- AM road network peak hour (8:00am to 9:00am) – 30 vehicle trips.
- PM road network peak hour (5:00pm to 6:00pm) – 0 vehicle trips.

#### *Pre-school*

Estimates for the pre-school are based on the proposed maximum of 80 places. Contrary to the primary school, the majority of travel to the pre-school would be by private vehicle.

The TIA uses the trip generation rates outlined in recent investigations by TfNSW ('Trip Generation Surveys – Child Care Centres', prepared by TEF Consulting and dated September 2015) of 0.51 vehicle trip per licensed place during the AM road network peak hour of 8:00am to 9:00am.

The proposed hours of operation for the pre-school are 8:30am to 4:00pm. Therefore, no vehicle trips would be generated during the PM road network peak hour of 5:00pm to 6:00pm.

Based on the above, the TIA estimates the following trip generation forecasts associated with the pre-school.

- AM road network peak hour (8:00am to 9:00am) – 41 vehicle trips.
- PM road network peak hour (5:00pm to 6:00pm) – 0 vehicle trips.

#### *Overall combined traffic generation*

When determining the number of vehicle trips per hour for AM and PM road network peaks for trips generated for staff and student pick-up/drop-off, the following is estimated:

- AM road network peak hour (8:00am to 9:00am) – 128 vehicle trips.
- PM road network peak hour (5:00pm to 6:00pm) – 57 vehicle trips.

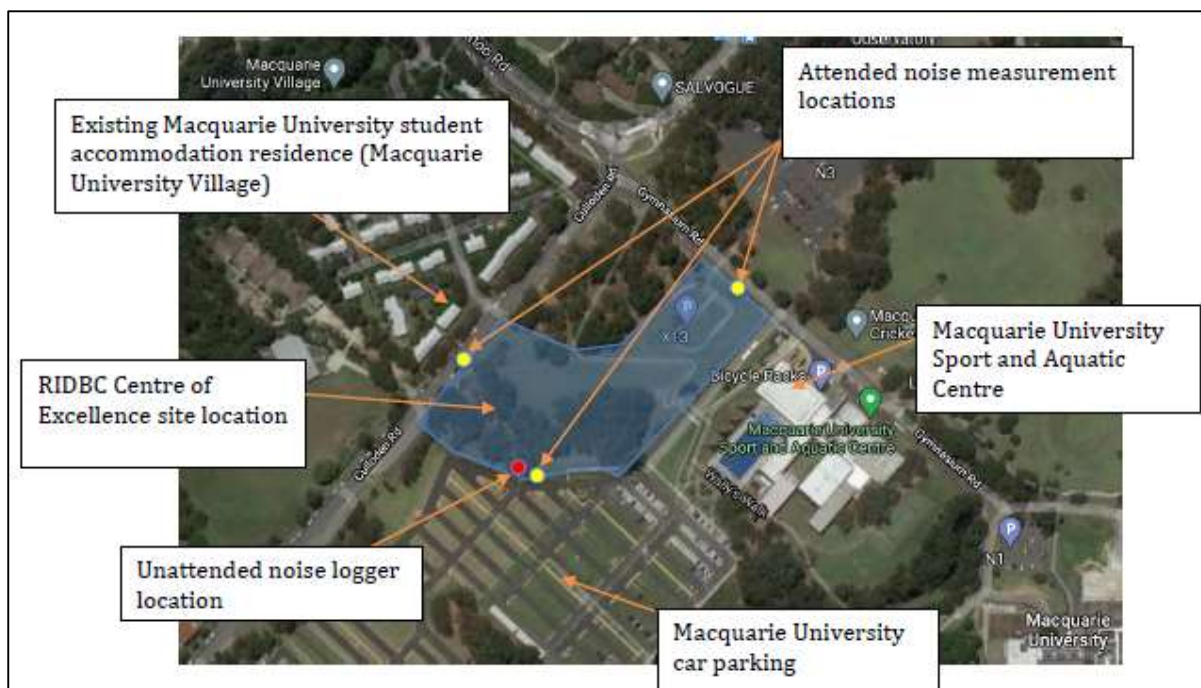
The TIA outlines that the road network including Waterloo Road, Gymnasium Road and Culloden Road, would continue to perform and operate acceptably following the development. The Department considers the traffic and transport impacts resulting of the development to be minimal, and that they can be managed by existing facilities within the site and the external road and transport network.

### **6.3 Noise and vibration**

A Noise Impact Assessment (NIA) was submitted with the EIS to assess the operational and construction noise impacts of the proposal on noise sensitive receivers. The closest external noise sensitive receivers are Macquarie University Village, located approximately 35m north of the site on the opposite side of Culloden Road and Macquarie University Sports and Aquatic Centre, located approximately 30m to the south of the site, on the opposite side of West Precinct Road (**Figure 19**). Accordingly, the proposal is required to consider mitigation of impacts on nearby receivers.

Attended and unattended noise monitoring was undertaken to quantify the existing acoustic environment at the site. Attended noise monitoring was undertaken at three locations within the site, and one long-term unattended logger was installed within the development site (**Figure 19**).





**Figure 19 |** Site location including surrounding receivers and logging locations (Source: Applicant's EIS)

## Construction

### Construction noise

The Interim Construction Noise Guideline (DECCW 2009) outlines the process for establishing noise management levels (NMLs) to minimise construction noise impacts on sensitive receivers. The NML (Noise Affected) during standard construction hours at the nearest sensitive residential receivers was set at 53dB(A) LAeq (15min) (using average background levels in accordance with Australian Standards), and for internal academic uses was set at 45dB(A) LAeq (15min). Construction noise is likely to exceed these NMLs if management controls are not implemented.

The Applicant has recommended construction hours being 7:00am to 6:00pm on Monday to Friday, 8:00am to 4:00pm on Saturday, and no work on Sundays or public holidays.

The NIA recommended management controls to mitigate construction noise levels at the site:

- all plant and equipment are to be maintained such that they are in good working order.
- a register of complaints is to be held in the event of complaints being received, including location, time of complaint, nature of the complaint and actions resulting from the complaint.
- if required, a noise level measurement of the offending plant item generating complaints is to be conducted and noise mitigations undertaken to reduce noise levels to within NMLs in the event magnitude of noise levels is found to be above suitable levels.
- the use of percussive and concrete sawing should be undertaken behind a closed façade when possible.
- the use of high noise generating equipment including hydraulic hammers, rock cutters or the like should not be undertaken prior to 8am Monday to Friday or 8.30am Saturdays.
- the loading of trucks should be conducted such that there is not a requirement to stack truck on the roadways adjacent to the residence within the Macquarie University Village.
- where possible squawkers should be used in place of reversing alarms.

### Construction vibration

As the proposal does not include any demolition, and due to the location of neighbouring structures to the site, vibration levels from excavation and construction are expected to comply with required vibration criteria.

In the event that excavation would include the removal of stone, a saw cut to the rock prior to any excavation or ripping is required at the perimeter of any excavation adjacent to neighbouring buildings within a distance of less than 25m, to mitigate impacts.

The Department supports the mitigation measures of the Applicant and has recommended conditions to ensure noise is minimised and managed appropriately.

## Operational

The NIA considered the potential noise impacts associated with operational noise.

To assess the potential noise impacts of the school on the nearest sensitive receivers, the NIA measured the:

- outdoor play areas against the requirements of the Australian Acoustical Consultants Guidelines for Child Care Centre Acoustic Assessment (AAAC, October 2013) noise criteria (Rated Background Levels +10db).
- other components, including mechanical services noise emissions, against the requirements of the NSW Noise Policy for Industry (NPI) (Rated Background Levels +5db).

### Project Trigger Noise Levels (PTNLs)

The PTNLs in **Table 6** have been calculated in accordance with the NPI and include either the Recommended Amenity Noise Level minus 5dB(A) plus 3dB(A) (for a 15 minimum period) or the measured existing Leq noise level minus 10dB if this is greater.

**Table 6 | External noise level criteria in accordance with NPI**

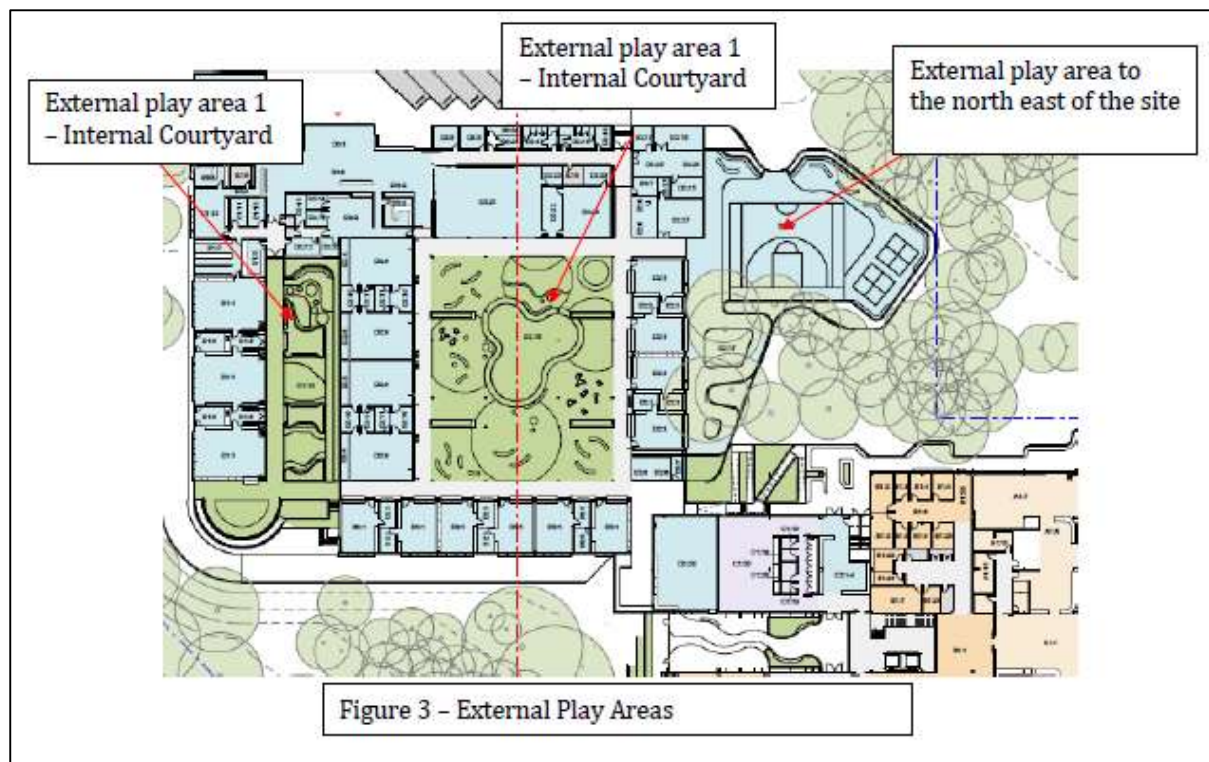
Location	Time of day	Project Amenity Noise Level (dBA)	LA90 15 min (RBL) (dBA)	LAeq period Noise Level (dBA)	Intrusive Criterion for new sources (dBA)
Residential receiver – Macquarie University village	Day	53	43	54	<b><u>48</u></b>
	Evening	43	37	42	<b><u>42</u></b>
	Night	<b><u>38</u></b>	33	37	38
Commercial receiver – Macquarie University Sports and Aquatic Centre	When in use	<b><u>65</u></b>	40	56	-

*Note: PTNLs are shown in bold and underlined.*

### Outdoor play areas

Three outdoor play areas are proposed in the development, as shown in **Figure 20**. The following assumptions have been made by the Applicant:

- the outdoor courtyard play areas would be located on the ground floor, and the future building would act as an acoustic barrier to the neighbouring residential receiver (Macquarie University Village).
- outdoor play areas would be used during short periods of the day and the expected number of children using each area is:
  - courtyard 1 – up to 80 children.
  - courtyard 2 – up to 120 children.
  - play area to north-east – up to 120 children.
- outdoor play areas would include supervision by teachers during daytime hours
- noise generated from outdoor play areas is based on the following:
  - source noise levels from active play based on sound power level of 86 dB(A) Leq – source noise level is the maximum of the range detailed within the AAAC's Guideline for Child Care Centre Acoustic Assessment, for groups of children playing. The source noise level is in the upper range of the AAAC expected source noise level for 3-6 year olds of 84-90 dB(A) for 10 children, and source noise level of 86dB(A) is suitable for the proposed use.
  - the source noise levels have been based on 1 in 2 children generating noise at any time within the play areas.



**Figure 20** | Outdoor play areas (Source: Applicant's EIS)

Based on the above assumptions, the Applicant compared the noise level criteria for outdoor play against background +10dB(A). The results of the assessment are detailed in **Table 7**.

**Table 7 | Results of the acoustic assessment of outdoor play**

Location	Time of day	Cumulative Noise Level (outdoor play areas)	Background noise level	Noise emission goals for outdoor play areas
		LAeq 15min, dB(A)	LA90 15min, dB(A)	LAeqT, dB(A)
Residential receiver – Macquarie University village	Day – 7:00am to 6:00pm	41.4	43	53
Commercial receiver – Macquarie University Sports and Aquatic Centre	Day – 7:00am to 6:00pm	38	43	65

The Applicant concluded that cumulative noise levels for outdoor play areas would not exceed the noise emission goals, and relevant noise emissions criteria would be achieved without additional acoustic mitigation or controls.

#### *Mechanical plant and equipment*

Various mechanical plant and equipment would be required for the development, including heating and cooling equipment, and supply and exhaust fans.

The design and specifications of plant and equipment would be finalised in detailed design. The NIA recommended measures to reduce impact, including acoustic silencers/louvers, internally lined ductwork, and acoustic housings.

The Department has reviewed the proposed mitigation measures and agrees the detail can be confirmed at design stage, subject to conditions requiring the applicant to implement the measures recommended in the NIA.

#### *Bells and Public Address (PA) systems*

The operation of the schools would include bells and PA systems. To further mitigate noise, all audible school bells and speakers would be located such that they face away from the residential receivers, would be set to an appropriate noise level of 70-75dB(A), and directional speakers would be utilised on PA systems.

#### *Noise from Culloden Road porte-cochere*

Noise impacts associated with pick-up and drop-off in the Culloden Road porte-cochere have been assessed against NPI and the EPA's 'Road Noise Policy for New Local Road' (RNP) as a guide. The

RNP outlines an assessment criterion of 55dB(A). The NIA calculates noise emission from buses and cars in the porte-cochere to be up to 51dB(A), thus complying.

#### *Noise from internal areas*

All internal areas would be located inside the proposed building envelopes. The buildings would have closable external façades with minimum acoustic performances for sound insulation. This includes minimum 6.38mm laminated glazing and solid light weight or concrete building elements to assist in insulating sound and mitigating impacts.

The potentially higher noise generating sources that would be conducted within the building, including presentation and teaching areas, would be located without external openings to external façades to the side of the building that faces the Macquarie University village receivers.

With regards to the lobby areas, if external façade openings are closed during periods of high noise generating activities, noise levels experienced at surrounding receivers would be within noise emission criteria.

The Department considers noise from internal areas has been appropriately assessed and is acceptable.

## **6.4 Tree removal**

An Arboricultural Impact Assessment (AIA) was submitted with the EIS. The proposal included removal of 121 trees and retention of 166 trees.

Concerns were raised by Council regarding the environmental and visual impacts of the proposed tree removal. As a result, alterations to the design of the entry driveway off Culloden Road and adjustments to the design of the outdoor play area to the west of the school, have allowed for the retention of an additional three trees. The RtS proposes removal of 118 trees and retention of 169 trees.

The alterations to the entry driveway off Culloden Road would result in the retention of two trees along this frontage. Both trees are Lemon-scented Gums (*Corymbia citriodora*), with heights between 10-19m and spreads of 8-20m.

The adjustments to the design of the outdoor play area to the west of the school would allow for the retention of an additional mature tree, being a Tallowwood (*Eucalyptus microcorys*) with a height of 20m and spread of 8m.

The AIA recommended tree protection measures to ensure the trees that are to be retained are appropriately protected during construction, including hand excavation within the tree protection zones (TPZ), no soil level changes within the TPZ, and installation of tree protection fencing.

The Applicant has proposed a comprehensive landscaping strategy with an additional 92 new trees planned within the site. To achieve a planting offset of at least 1:1 replacement planting, an additional 27 trees would be required to be planted within the MQU campus. A condition of consent has been recommended to ensure 1:1 replacement planting is achieved.

The Department accepts that tree removal is necessary to accommodate the proposal, and the development has been sited to retain clusters of mature native vegetation where possible. The Department supports the AIA implementation of tree protection controls for retained trees.



## 6.5 Other issues

The Department's consideration of other issues is provided at **Table 8**.

**Table 8 | Department's assessment of other issues**

Issue	Findings	Recommendations
<b>Flooding and stormwater</b>	<p>The site would not be affected by flooding.</p> <p>The development has been designed with an appropriate stormwater strategy to collect water, convey and ultimately discharge it into the existing Macquarie University stormwater system. The stormwater strategy includes two underground tanks: an on-site detention (OSD) tank and a separate rainwater tank.</p> <p>The rainwater tank has a volume of 10m<sup>3</sup>, while the OSD has a volume of 380m<sup>3</sup>. The overflow from the rainwater tank would be directed to the OSD tank.</p> <p>Runoff from ground surface areas would be collected by surface stormwater pits and piped to the OSD, where the water would be detained. Overflow would be directed and connected to the Macquarie University kerb inlet system along West Precinct Road. The campus stormwater system ultimately directs flows into Mars Creek.</p> <p>Rainwater reuse is incorporated into the stormwater concept and water would be collected from roof structures via downpipes and piped directly to the rainwater storage tank for landscape irrigation reuse.</p> <p>Two swales are proposed to be incorporated into the stormwater strategy (40sqm and 8sqm) to assist with treating water.</p> <p>The stormwater strategy would achieve the following water quality targets, confirmed by the submitted Model for Urban Stormwater Improvement Conceptualisation (MUSIC):</p> <ul style="list-style-type: none"> <li>• 100% reduction in gross pollutants.</li> <li>• 47.4% reduction in nitrogen.</li> <li>• 71.7% reduction in phosphorous.</li> <li>• 85% reduction in total suspended solids.</li> <li>• 2.1% reduction in residual flow.</li> </ul> <p>Overall, the Department considers the proposed stormwater strategy to be appropriate for the development.</p>	<p>The Department has recommended conditions to ensure compliance with engineering plans.</p>
<b>Development contributions</b>	<p>Development of the campus under the concept plan is subject to a Planning Agreement (PA) between MQU and Council (executed February 2013). Council noted the PA applies to the development, but has not requested the levying of any contributions in accordance with the PA.</p>	<p>The Department considers no conditions are necessary.</p>

Issue	Findings	Recommendations
<b>Contamination</b>	<p>A Detailed Site Investigation (DSI) was submitted with the EIS.</p> <p>Based on the conclusions of the DSI, the Department is satisfied that the site is suitable for the proposal without the need for further investigation or contamination management.</p>	The Department considers no conditions are necessary.
<b>Crime Prevention through Environmental Design (CPTED)</b>	<p>CPTED is a recognised crime prevention strategy that focuses on the planning, design and structure of the built environment to reduce opportunities for crime and anti-social behaviour.</p> <p>CPTED has four key principles:</p> <ol style="list-style-type: none"> <li>1. Natural surveillance.</li> <li>2. Access control.</li> <li>3. Territorial re-enforcement.</li> <li>4. Space and activity management.</li> </ol> <p>To maintain good natural surveillance, publicly accessible spaces would maintain visual connection to habitable areas. Main entries would be well defined and visible from the public domain. Landscaping has been proposed to prevent climbing into private terraces and entries.</p> <p>Gates and secure entrances would be provided to prevent unauthorised entry. Signage and wayfinding is proposed throughout to direct people to relevant areas (including braille signage). All external entry points would have access control and the ability to lockdown in case of any emergency. The basement entrance would be controlled via swipe card or similar.</p> <p>Lighting is proposed.</p> <p>The buildings would be maintained appropriately and regularly to provide a sense of guardianship and ownership to deter anti-social behaviour.</p>	The Department considers no conditions are necessary.
<b>Construction management and staging</b>	<p>A Preliminary Construction Management Plan (CMP) was submitted with the EIS.</p> <p>The CMP sequences development works as follows:</p> <ul style="list-style-type: none"> <li>• site fencing and sediment and erosion controls.</li> <li>• tree removal and site clearing.</li> <li>• excavations works, including pile/ pier works.</li> <li>• concrete and structural steel framing.</li> <li>• external windows.</li> <li>• scaffold installation and roofing and façade works.</li> <li>• internal works.</li> <li>• landscaping works.</li> </ul> <p>The overall construction duration is anticipated to be 18 months.</p> <p>Standard hours of construction works are proposed: 7:00am to 6:00pm Monday to Friday, 8:00am to 4:00pm Saturday, and no works on Sunday or public holidays.</p>	The Department has recommended a condition requiring that prior to the commencement of construction, a construction environmental management plan is submitted to the certifier.

Issue	Findings	Recommendations
<b>Erosion and sediment control</b>	<p>Erosion and sediment control details are incorporated into the set of civil drawings submitted in support of the application.</p> <p>The details outline that appropriate measures would be incorporated during construction works. The measures would include sediment filter fences, waterproof coverings over stockpiles, temporary gabion sediment basins, vehicle wash down areas, and minimum 200mm high berms at vehicular entries with runoff to be directed to sediment traps.</p>	<p>The Department has recommended conditions of consent to ensure compliance with engineering plans and proposed erosion and sediment control measures.</p>
<b>Geotechnical</b>	<p>A Geotechnical Investigation was submitted with the EIS.</p> <p>The investigation concludes that groundwater is unlikely to be a significant issue for the proposed excavation, and the risk of encountering acid sulfate soils is negligible. An acid sulfate soil management plan is not considered necessary.</p> <p>Based on investigation, the Department is satisfied that the site is suitable for the proposed development.</p>	<p>The Department considers no conditions are necessary.</p>
<b>Construction traffic and parking</b>	<p>The proposal would result in cumulative construction impacts occurring within the locality, including other development works on campus.</p> <p>Traffic would be contained to two entries: a main access along Culloden Road and another along West Precinct Road. It is not expected that access from Gymnasium Road would be used for the entirety of the project, however access may be necessary towards completion for specific works.</p> <p>It is anticipated that in the peak of construction, there would be up to 50 trucks per day, with each truck generating an entry and exit movement. There is an expected peak of 15 two-way truck movements during a one-hour period.</p> <p>The daily worker population is expected to peak at approximately 200 – 250 workers per day. Construction workers would be likely to travel to the site by public transport due to the accessibility of the site. Macquarie University parking permits are not available to construction staff but there would be some available street parking and limited pay-to-park on-site spaces.</p> <p>The impacts of construction traffic volumes on the external networks is expected to be low.</p> <p>Subject to conditions requiring a final Construction Pedestrian Traffic Management Plan (CPTMP) be prepared and approved by Council, the Department is satisfied that potential impacts associated with</p>	<p>The Department has recommended a condition requiring that prior to the issue of a construction certificate, a Construction Pedestrian Traffic Management Plan (CPTMP) be submitted to Council for approval.</p>

Issue	Findings	Recommendations
	construction traffic can be appropriately managed and mitigated.	
<b>Green travel plan and sustainable transport</b>	<p>A Green Travel Plan (GTP) was included in the TIA.</p> <p>The GTP encourages the use of public and active transport, ensures adequate facilities are provided to enable users to travel by sustainable transport modes, and raises awareness of sustainable transport.</p> <p>A travel plan for the wider university campus exists, with the GTP being complementary to the plan. The GTP proposes to encourage active, public and sustainable transport by:</p> <ul style="list-style-type: none"> <li>• marketing the benefits and promoting sustainable alternatives.</li> <li>• making staff aware of the GTP during inductions.</li> <li>• implementing flexible and alternative working arrangements to limit the need to travel.</li> <li>• promoting cycling.</li> <li>• participating in National Walk to Work Day and provision of information items to users.</li> <li>• investigating of purchasing Opal cards for general use.</li> <li>• staggering arrival and departure times for primary school users.</li> <li>• providing of end-of-trip facilities.</li> </ul> <p>The Department considers the GTP is appropriate for promoting green travel and sustainable transport alternatives.</p>	The Department considers no conditions are necessary.
<b>Services and utilities</b>	An infrastructure management plan was submitted with the EIS. It concluded that essential services are available at the site for connection and augmentation.	The Department recommends conditions requiring approvals be obtained from the relevant service authority.
<b>Overshadowing</b>	<p>The proposed development would generate shadows that are not currently experienced at the site. However, shadows would fall only on the development itself and on at-grade open car parks.</p> <p>The overshadowing within the development itself is minimal, and the external play spaces would receive appropriate solar access in mid-winter.</p>	The Department considers no conditions are necessary.

Issue	Findings	Recommendations
	The Department considers the overshadowing impacts acceptable as adequate levels of solar access and amenity are achieved.	
<b>Aboriginal cultural heritage</b>	<p>An Aboriginal Cultural Heritage Assessment Report (ACHAR) was submitted with the EIS to assess potential impacts of the development on Aboriginal cultural heritage.</p> <p>The study area was deemed a landform of archaeological potential due to its elevated ridgeline, and the entire landform was sampled (including the proposal footprint). Vegetation was inspected for evidence of Aboriginal cultural modification.</p> <p>Excavation units were placed across the entire study area and testing locations were manually excavated using hand tools, bucketed and sieved. This was sufficient to confirm that the underlying soil was culturally sterile. The development is not expected to detrimentally impact Aboriginal cultural heritage.</p>	The Department considers no conditions are necessary.
<b>Historic heritage</b>	<p>A Statement of Heritage Impact was submitted with the EIS to assess potential heritage impacts of the proposal on historic heritage.</p> <p>The entire site is mapped as a locally significant heritage item under Ryde Local Environmental Plan 2014 (RLEP 2014). However, the area of significance relates only to ruins of a small cottage located approximately 180m south-east of the proposed development site.</p> <p>The Applicant assessed that there is no relationship between the subject site and the heritage item, and there would be no physical or architectural impact on the item. An appropriate distance separates the proposal and the ruins, meaning there is minimal visual impact to or from the item.</p> <p>The proposed development would retain and respect the curtilage and established heritage significance of the cottage ruins.</p> <p>The Department supports the conclusions of the Applicant and considers the impacts on the ruins from the proposed development would be negligible.</p>	The Department considers no conditions are necessary.
<b>Construction waste management</b>	<p>A construction waste management plan (CWMP) was submitted with the EIS.</p> <p>The plan detailed the following waste diversion targets:</p> <ul style="list-style-type: none"> <li>• increase construction and demolition recycling rates to 80%.</li> <li>• increase waste diverted to landfill to 75%.</li> <li>• reduce litter by 40%.</li> </ul>	The Department has recommended conditions to ensure compliance with the CWMP.



Issue	Findings	Recommendations
	<ul style="list-style-type: none"> <li>• reduce illegal dumping incidents by 30%.</li> </ul> <p>The plan estimates the development would generate 690 tonnes of demolition waste, of which 82.6% would be diverted from landfill. It also estimates the development would generate 12,746.3 tonnes of construction waste, of which 98.4% would be diverted from landfill.</p> <p>The Department supports the waste diversion targets and the plan, and considers the construction waste management of the development to be appropriate.</p>	
<b>Operational waste management</b>	<p>An operational waste management plan (OWMP) was submitted with the EIS.</p> <p>The plan detailed objectives to:</p> <ul style="list-style-type: none"> <li>• promote responsible source separation.</li> <li>• ensure adequate waste provisions and robust procedures.</li> <li>• comply with all relevant council codes, policies and guidelines.</li> </ul> <p>The plan outlines that the development would be serviced by a private waste contractor. Waste collection would be via the basement loading dock/waste handling areas. A clearance height of 3.8m would be provided at the basement entry (with 4m clearance within the basement) to allow for waste collection vehicles to enter the site. Turning plans and swept paths submitted with the EIS demonstrate that there is sufficient space in the basement to allow for a garbage truck up to 9.9m to appropriately manoeuvre and enter and exit the site in a forward direction.</p> <p>The plan estimates that the following amounts of waste would be generated weekly:</p> <ul style="list-style-type: none"> <li>• 9,263L of general waste.</li> <li>• 6,870L of paper/carboard recycling.</li> <li>• 3,436L of co-mingled recycling.</li> </ul> <p>There would be a waste storage room in the school pavilion of 22sqm. The waste storage and collection area in the basement would be 77sqm in size. These spaces are appropriately sized for the receptacles required to store the abovementioned generated waste between collections.</p> <p>The Department supports the operational waste management plan, and considers that waste would be appropriately managed.</p>	<p>The Department has recommended conditions of consent to ensure compliance with the OWMP.</p>

## 7 Evaluation

The Department has reviewed the EIS, RtS, and assessed the merits of the proposal, taking into consideration advice from the public authorities, including Council. Issues raised in public submissions have been considered and all environmental issues associated with the proposal have been addressed. The Department concludes that the impacts of the development are acceptable and can be mitigated through the recommended conditions of consent. Consequently, the Department considers the development is in the public interest and should be approved, subject to conditions.

The proposal is consistent with the objects of the *Environmental Planning and Assessment Act 1979* and is consistent with the State's strategic objectives as set out in the Greater Sydney Regional Plan, and North District Plan as it would provide additional specific education facilities.

The form, scale and design of the development is appropriate for the site and its context. The proposed built form is satisfactory in its location in an established university campus. Traffic, transport, acoustic, heritage and tree removal impacts have been addressed. The Department has recommended conditions to manage the potential construction and operational impacts on the surrounding land uses.

The proposal is in the public interest as it would provide benefits including:

- delivering increased specialist education facilities.
- providing educational facilities near public transport and active transport opportunities.
- delivery of 205 construction and 300 operational jobs.

## 8 Recommendation

It is recommended that the Executive Director, Infrastructure Assessments, as delegate of the Minister for Planning and Public Spaces:

- **considers** the findings and recommendations of this report.
- **accepts and adopts** the findings and recommendations in this report as the reasons for making the decision to grant consent to the application.
- **agrees** with the key reasons for approval listed in the notice of decision.
- **grants consent** for the application in respect of the Royal Institute for Deaf and Blind Children Centre of Excellence (SSD 10451).
- **signs** the attached development consent and recommended conditions of consent (Appendix D).

**Prepared by:**



**Andrew Golden**  
Principal Planning Officer  
State Significant Acceleration

**Recommended by:**



**Gabriel Wardenburg**  
Team Leader  
State Significant Acceleration

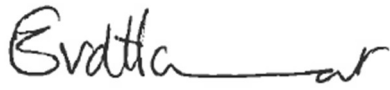
**Recommended by:**



**Alan Bright**  
Director  
State Significant Acceleration

## 9 Determination

The recommendation is **Adopted** by:

A handwritten signature in black ink, appearing to read 'Erica van den Honert', with a long horizontal flourish extending to the right.

**Erica van den Honert**  
Executive Director  
Infrastructure Assessments

# Appendices

## Appendix A – List of referenced documents

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

**1. Environmental Impact Statement**

<https://www.planningportal.nsw.gov.au/major-projects/project/31016>

**2. Submissions**

<https://www.planningportal.nsw.gov.au/major-projects/project/31016>

**3. Applicant's Response to Submissions (RtS)**

<https://www.planningportal.nsw.gov.au/major-projects/project/31016>

**4. Public authority submissions to RtS**

<https://www.planningportal.nsw.gov.au/major-projects/project/31016>



## Appendix B – Statutory considerations

### ENVIRONMENTAL PLANNING INSTRUMENTS (EPIs)

To satisfy the requirements of section 4.15(a)(l) of the Environmental Planning and Assessment Act 1979 (EP&A Act), this report includes references to the provisions of the EPIs that govern the carrying out of the project and have been taken into consideration in the Department's environmental assessment.

EPIs considered as part of the assessment of the proposal are:

- State Environmental Planning Policy (State and Regional Development) 2001 (SRD SEPP).
- State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP).
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2019 (Education SEPP).
- State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55).
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (SHC SREP).
- Ryde Local Environmental Plan 2014 (RLEP 2014).
- Draft State Environmental Planning Policy (Remediation of Land) (Draft Remediation SEPP).
- Draft State Environmental Planning Policy (Environment) (Draft Environment SEPP).

### COMPLIANCE WITH CONTROLS

#### State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)

Table B1 | SRD SEPP compliance table

Relevant sections	Consideration and comments	Complies
<b>3 Aims of Policy</b> The aims of this Policy are as follows:  (a) to identify development that is State significant development	The proposed development is identified as State significant development (SSD).	Yes
<b>8 Declaration of State significant development: section 4.36</b>  (1) Development is declared to be State significant development for the purposes of the Act if:  (a) the development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the Act, and  (b) the development is specified in Schedule 1 or 2.	The proposal is for the purpose of a new school (regardless of capital investment value) under clause 15(1) of Schedule 1 of the SRD SEPP.	Yes

#### State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)

The Infrastructure SEPP aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and providing for

consultation with relevant public authorities about certain development during the assessment process.

The application was referred to Transport for NSW and relevant service providers, including Sydney Water and Ausgrid. No objections were raised.

### **State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 (Education SEPP)**

The Education SEPP commenced on 1 September 2017 and aims to simplify and standardise the approval pathways for educational establishments and early education and care facilities.

The Education SEPP includes planning rules for where these developments can be built, which development standards can apply and constructions requirements. The application has been assessed against the relevant provisions of the Education SEPP.

Clause 57 of the Education SEPP requires traffic generating development that involves new premises to be referred to Transport for NSW (TfNSW). The application was referred to TfNSW and comments considered.

The Education SEPP defines the pre-school component of the development as a centre-based child care facility. Clause 22 states that concurrence is required for centre-based child care facility if:

- (a) the floor area of the building or place does not comply with regulation 107 (indoor unencumbered space requirements) of the Education and Care Services National Regulations, or*
- (b) the outdoor space requirements for the building or place do not comply with regulation 108 (outdoor unencumbered space requirements) of those Regulations.*

The proposed pre-school satisfies the numeric play space requirements for up to 80 children. As such, separate concurrence of the Regulatory Authority is not required.

The consent authority is also required to consider the relevant provisions of the Department's Child Care Planning Guideline prior to determining an application for a centre-based child care facility. Consideration of the relevant planning provisions of the Guideline is provided below in **Table B2**.

**Table B2 | Education SEPP compliance table**

Matter	Consideration/Comment
<b>Design quality principles</b>	
Context	The pre-school would be integrated into the school and would cater for both the local community and the greater catchment families working with the RIDBC.
Built form	The pre-school would be of an appropriate built form and scale for the purpose of the building. Learning and play spaces would be delineated and strategically located through the facility. Skillion roofs would maximise views to the outdoor areas and the proposed use of natural materials would allow the facility to positively contribute to the appearance of the development from the public domain.

Adaptive learning spaces	The design would maintain adaptive and inclusive spaces to cater for students with additional needs. The outdoor areas have been designed to directly relate to the indoor spaces, making them an extension of the indoor learning areas, further promoting flexibility.
Sustainability	Sustainable principles have been designed into the development, including the pre-school. Roof water would be captured and directed to a tank for irrigation in landscaping. The development also proposes use of sustainable materials, and deep soil landscaping and retention of existing trees where possible have also been included.
Landscape	The landscape design for the proposed pre-school, including outdoor play areas, would be integrated into the site and overarching landscape strategy.
Amenity	The learning spaces have been designed to ensure direct connections to outdoor learning and play spaces, and outlooks to green space. The outdoor play spaces have been designed to cater for children with varying needs, and can be closed off for safety and maintaining adequate supervision as needed.
Safety	<p>The pre-school has been proposed with separate play spaces designed to interface with functional areas and increase sight lines within the facility.</p> <p>A single entry point would be provided, and the reception outside this area would be shared with the school.</p> <p>Opportunities for overlooking into the facility are limited due to location of the facility within the site.</p>
<b>Matters for consideration</b>	
Site selection and location	<p>The pre-school forms part of the larger proposal and is surrounded by the development and the wider university campus. The use is appropriately sited to ensure no adverse acoustic, privacy or amenity impacts arise. Dedicated drop-off and pick-up is proposed for pre-school children in the Culloden Road porte-cochere.</p> <p>The location of the pre-school within the wider school means the RIDBC specialist operations are centralised.</p> <p>The site is not affected by any environmental constraints that affect the operational safety of the facility.</p>
Local character, streetscape and the public domain interface	<p>The proposed integration of the pre-school with the school would ensure it remains compatible with the character of the locality.</p> <p>The pre-school does not unreasonably impact the public domain and provides clear delineation between the pre-school and primary school areas.</p>

Building orientation, envelope, building design and accessibility	The Applicant has demonstrated that the design and location of the pre-school play areas would not result in any adverse environmental or amenity impacts on the adjoining neighbours.
Landscaping	<p>The proposed landscape design for the entire development incorporates passive and active landscape elements that help create a diverse and interesting learning environment.</p> <p>Appropriate fencing is proposed along boundaries to help minimise privacy impacts into the outdoor play space.</p>
Visual and acoustic privacy	<p>The pre-school would be located away from the public domain. Accordingly, privacy impacts would be minimised by reducing exposure of the pre-school.</p> <p>The predicted noise impacts associated with the operation of the pre-school are generally satisfactory and would not result in adverse amenity impacts.</p>
Noise and air pollution	The development would not result in noise or air pollution.
Hours of operation	The pre-school is proposed to operate between 8:30am and 4:00pm, Monday to Friday. The proposed hours of operation would not unreasonably impact on the locality.
Traffic, parking and pedestrian circulation	<p>Staff parking spaces would be located in the basement. In addition, drop-off and pick-up space is proposed in the Culloden Road porte-cochere.</p> <p>The Applicant's assessment concluded the level of parking provided is sufficient for the demand generated, and the external road network can cater for the development.</p>
<b>National Regulations</b>	
Indoor space requirements	<p>3.25sqm of unencumbered indoor space would be required per child. This results in 260sqm being required for 80 children.</p> <p>267.87sqm of unencumbered indoor space would be provided.</p>
Laundry and hygiene facilities	Laundry and hygiene facilities are proposed and would be located just inside the main entrance.
Toilet and hygiene facilities	Toilet and hygiene facilities would be provided. They would be located between playrooms and have external access to outdoor play areas. Passive surveillance and supervision would be provided by large internal windows.
Ventilation and natural light	Appropriate ventilation and natural light would be provided. The pre-school has been designed with passive design principles including orientation, shading, and ventilation. It is intended these principles would minimise energy consumption and reliance on mechanical heating and cooling.

	<p>Fresh air would be provided via openable windows and doors at floor level, while higher highlight windows would have manually-operate glass louvres to allow cross-ventilation.</p> <p>A significant amount of glazing would allow ample natural light into the indoor spaces.</p>
Administrative space	<p>The administrative spaces for the pre-school and primary school would be co-located for efficiency. The internal layout of the proposed administrative spaces has considered the interaction of staff, parents and children and visitors to ensure interactions are appropriately managed. In addition, three specialist meeting rooms would be provided around the main foyer to facilitate interaction as required.</p>
Nappy change facilities	<p>Nappy change facilities would be provided within toilet and hygiene areas.</p>
Premises designed to facilitate supervision	<p>The internal layout of the pre-school, including staff rooms and toilet facilities, has been designed to facilitate supervision between educators and children.</p>
Emergency and evacuation procedures	<p>The Applicant has not submitted details surrounding emergency and evacuation procedures. The Department has recommended a condition of consent requiring such details be provided prior to the issue of a construction certificate and certified by a suitably qualified access consultant.</p>
Outdoor space requirements	<p>7sqm of unencumbered outdoor space is required per child. This results in 560sqm being required for 80 children.</p> <p>561.54sqm of unencumbered outdoor space would be provided.</p>
Natural environmental	<p>The landscape design would integrate greenery and natural elements into the outdoor play spaces.</p> <p>Several different zones within the outdoor play spaces would be provided: sandpit (sensory outdoor play), retreat spaces, trampoline (active play), soft-fall amphitheatre, and sensory water play.</p> <p>Screen planting and feature sensory planting would also encourage engagement with the natural environment.</p>
Shade	<p>The outdoor play area would be fitted with a canopy with adjustable manually operated louvres to allow for control of solar access and shade.</p>
Fencing	<p>The outdoor play area would be bounded by school buildings on three sides, with one side open to the Macquarie University campus for visual connectivity. On the open side, a 2.1m high fence is proposed.</p> <p>The remainder of the pre-school would be secured through controlled access points within the main reception area.</p>

Soil assessment	Detailed site investigations have demonstrated the site is not affected by contamination.
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Clause 35(6)(a) requires the design quality of the development be evaluated in accordance with the design quality principles set out in Schedule 4. An assessment of the development against the design principles is provided in **Table B3**.

**Table B3** | Consideration of the design quality principles

Design Principles	Response
Principle 1 – context, built form and landscape	<p>The development has been designed to respond to the site’s existing vegetation and topography. The spatial organisation of the development responds to the landscape and solar amenity, and priorities tree retention.</p> <p>The development complements the streetscape and is not inconsistent with the campus periphery. The development would act as a gateway building into the campus.</p>
Principle 2 – sustainable, efficient and durable	<p>The Department has recommended conditions to ensure that ESD measures are incorporated where possible (see <b>Section 4.5</b>).</p>
Principle 3 – accessible and inclusive	<p>The proposal incorporates wayfinding signage identifying key areas within the school assisting visitors to navigate the site. Accessible connections are provided to all levels.</p> <p>The development has been designed to consider the diverse needs of students who may be hearing or vision impaired. Each classroom has been designed for direct connectivity to a central covered outdoor learning area (COLA). The COLA is inclusive and would limit ball activities noting that vision-impaired students may require more considered environments.</p> <p>Accessible connections are provided throughout.</p>
Principle 4 – health and safety	<p>The design of the school buildings would allow maximum passive surveillance and security. The lobby area would act as an invited waiting area where visitors would be visually screened prior to entry, and then further screened prior to entry into school grounds. Learning areas have been designed to encourage highly visible students capable of supervision from key vantage points.</p> <p>Security surveillance would also be provided at key areas to enable best practice.</p>
Principle 5 – amenity	<p>The proposal provides a variety of internal and external learning places for both formal and informal educational opportunities.</p> <p>The design of the landscaping and covered outdoor areas would provide ample shaded areas for students and staff. The facility would include equal access to outdoors, appropriate solar access, cross ventilation and all-ability play areas.</p> <p>The shared lobby would provide amenity for visitors including parents, carers, students and staff. Staff amenity would also be considered, with shared facilities strategically co-located.</p>
Principle 6 – whole of life, flexible, adaptable	<p>The current design would encourage future use and flexibility of spaces and further adaptation throughout the longer life cycle of the schools as much as possible. The learning spaces are specialised due to acoustic and visual requirements and therefore cannot be completely open or agile (when compared to mainstream schools), however the spaces would ensure an appropriate degree of flexibility without undermining the specialist learning.</p>



Design Principles	Response
Principle 7 – aesthetics	<p>The proposal considered best practice environments for vision impaired students, such as differentiation between surfaces, consistent approaches to volumes and visual bands or datums enabling the spaces to be read easily and consistently as part of the wayfinding strategy for the school. This would be further ensured by the human scale of the facilities.</p> <p>Practical activity spaces would be externalised to encourage undercover collaboration outdoors.</p> <p>The overall appearance would not detract from the public domain or university campus and sits appropriately within its context.</p>

### **State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)**

SEPP 55 aims to ensure that potential contamination issues are considered in the determination of a development application. A Detailed Site Investigation (DSI) was submitted as part of the EIS.

Based on the conclusions of the DSI, the Department is satisfied that the site is suitable for the proposed development without the need for further investigation or contamination management.

### **Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (SHC SREP)**

SHC SREP provides planning principles for development within the Sydney Harbour Catchment. The site is located within the Sydney Harbour Catchment area.

The proposal is consistent with the relevant planning principles of SHC SREP and would not have any significant adverse impact on the Sydney Harbour Catchment.

### **Draft State Environmental Planning Policy (Remediation of Land) (Draft Remediation SEPP)**

The Draft Remediation SEPP will retain the overarching objective of SEPP 55 of promoting the remediation of contaminated land to reduce the risk of potential harm to human health or the environment.

Additionally, the provisions of the Draft Remediation SEPP will provide a state-wide planning framework for the remediation of land, maintain the objectives and reinforce those aspects of the existing framework that have worked well, require planning authorities to consider the potential for land to be contaminated when determining development applications and planning proposals, clearly list the remediation works that require development consent, and introduce certification and operational requirements for remediation works that can be undertaken without development consent.

The Department is satisfied that the proposal would be consistent with the objectives of the Draft Remediation SEPP.

### **Draft State Environmental Planning Policy (Environment) (Draft Environment SEPP)**

The Draft Environment SEPP is a consolidated SEPP which proposes to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property.

Once adopted, the Draft Environment SEPP will replace seven existing SEPPs. The proposed SEPP will provide a consistent level of environmental protection to that which is currently delivered under the existing SEPPs. Where existing provisions are outdated, no longer relevant or duplicated by other parts of the planning system, they will be repealed.

Given that the proposal is consistent with the provisions of the applicable existing SEPPs, the Department is satisfied that the proposed development would generally be consistent with the provisions of the Draft Environment SEPP.

### Ryde Local Environmental Plan 2014 (RLEP 2014)

RLEP 2014 aims to encourage the development of housing, employment, infrastructure and community services to meet the needs of the existing and future residents of the Ryde LGA. RLEP 2014 also aims to conserve and protect natural resources and foster economic, environmental and social well-being.

The Department has consulted with Council throughout the assessment process and has considered all relevant provisions of RLEP 2014, and those matters raised by Council in its assessment of the development (see **Section 5**). The Department concludes the development is consistent with the relevant provisions of RLEP 2014. Consideration of the relevant clauses of the RLEP 2014 is provided in **Table B4**.

**Table B4** | Consideration of RLEP 2014

RLEP 2014	Department comment/assessment
<b>Clause 2.6 Subdivision – consent requirements</b>	<p>The proposal seeks consent to concurrently amalgamate the two existing lots and subdivide to create two parcels:</p> <ul style="list-style-type: none"> <li>Proposed lot 2001 – 1.934ha; the development.</li> <li>Proposed lot 2000 – 105.9ha; remain MQU campus.</li> </ul>
<b>Clause 4.1 Minimum subdivision lot size</b>	<p>The site is not prescribed a minimum subdivision lot size under RLEP 2014. The proposal includes amalgamation of the existing two lots and concurrent subdivision into two lots to create the following:</p> <ul style="list-style-type: none"> <li>Proposed lot 2001 – 1.934ha; the development.</li> <li>Proposed lot 2000 – 105.9ha; remain MQU campus.</li> </ul>
<b>Clause 4.3 Height of buildings</b>	<p>The site is not prescribed a maximum building height under RLEP 2014. Nevertheless, the height of proposed buildings is considered appropriate. The Department considered the building height and built form in <b>Section 6.1</b>.</p>
<b>Clause 4.4 Floor space ratio</b>	<p>The site is not prescribed a maximum floor space ratio under RLEP 2014. Nevertheless, the proposed floor space ratio of 0.5:1 is considered appropriate. The Department considered the building height and built form in <b>Section 6.1</b>.</p>
<b>Clause 5.10 Heritage conservation</b>	<p>The Department considered potential heritage impacts in <b>Section 6.5</b>.</p>
<b>Clause 6.1 Acid sulfate soils</b>	<p>A Geotechnical Investigation was submitted as part of the EIS and concluded that the risk of encountering acid sulfate soils is negligible. An acid sulfate soil management plan is not considered necessary.</p>

RLEP 2014	Department comment/assessment
<b>Clause 6.2 Earthworks</b>	The development requires some earthworks in order to level the slope and site the development. Approximately 14,000m <sup>3</sup> of cut and 15,600m <sup>3</sup> of fill is proposed. The Department has recommended conditions to ensure drainage is managed through construction.
<b>Clause 6.4 Stormwater management</b>	The Department is satisfied that stormwater would be managed appropriately in accordance with this clause. The Department considered the proposed stormwater management strategy in <b>Section 6.5</b> .
<b>Clause 6.6 Environmental sustainability</b>	The Department is satisfied that the ecologically sustainable design principles implemented into the design of the development are appropriate in accordance with this clause. The Department considered ecologically sustainable design in <b>Section 4.5</b> .

### Other policies

In accordance with clause 11 of SRD SEPP, Development Control Plans (DCPs) do not apply to SSD.

An assessment against the approved concept plan is at Appendix C.

## Appendix C – Consistency with Concept Plan Approval

Concept plan approval requirement (as modified)	Department comment/assessment
<b>A1 Development Description</b> (1) 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, prepared by JBA Planning Consultants and Cox Richardson Architects and MP 06_0016 MOD 1 including: (a) The provision of an additional 400,000m <sup>2</sup> of commercial GFA and associated parking. (b) The Provision of an additional 157,000m <sup>2</sup> of academic GFA. (c) The provision of an additional 3450 beds for University purposes only. (d) Infrastructure upgrading and improvements to the road network as required, and (e) Rationalisation of University car parking locations. (f) A maximum of 171,000m <sup>2</sup> of GFA for Precinct D.	The GFA for RIDBC is assigned to two categories: <ul style="list-style-type: none"> <li>• Commercial – 4,364sqm.</li> <li>• Academic – 6,108sqm.</li> </ul> (a) The Cochlear development at Macquarie University pre-dates the concept approval and is thus excluded from the cap. There are two developments within the campus that reduce the cap: the Australian Hearing Hub (13,982sqm of commercial GFA) and 8-12 University Avenue (23,620sqm of commercial GFA).

Concept plan approval requirement (as modified)	Department comment/assessment
	<p>The 400,000sqm cap less the commercial GFA from the above developments leaves 362,398sqm of available GFA.</p> <p>The commercial GFA associated with the proposed development is within the cap.</p> <p>(b) 49,754sqm of academic GFA has been developed at the campus (including Central Courtyard redevelopment and 8-12 University Avenue), meaning 107,246sqm of academic GFA remains below the cap.</p> <p>The academic GFA associated with the proposed development is within the cap.</p>
<p><b>A2 Development in Accordance with Plans and Documentation</b></p> <p>(1) The development shall generally be in accordance with the following plans and documentation (including any appendices therein):</p> <p>(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, prepared by JBA Planning Consultants and Cox Richardson Architects and MP 06_0016 MOD 1.</p> <p>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.</p> <p>(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.</p> <p>(3) In accordance with Section 75P(2)(a) of the EPA 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.</p>	<p>The Department considers the proposal has been designed in accordance with the documentation.</p>

Concept plan approval requirement (as modified)	Department comment/assessment
<p><b>A3 Gross Floor Area</b></p> <p>(1) The maximum additional gross floor area for academic use across the Macquarie University campus must not exceed 157,000sqm.</p> <p>(2) The maximum additional gross floor area for commercial use across the Macquarie University campus must not exceed 400,000sqm.</p> <p>(3) The maximum total gross floor area for Precinct D must not exceed 171,000sqm. If the maximum gross floor area is not achieved in Precinct D, it can be redistributed elsewhere on the Macquarie University campus but Precinct D must not exceed a total of 171,000sqm (inclusive of existing gross floor area in Precinct D).</p> <p>(4) The maximum floor space ratio for any building on land identified within Macquarie University Concept Plan MP 06_0016 Floor Space Ratio Map 004 is not to exceed the floor space ratio shown for the land.</p>	<p>The proposal would deliver an additional 6,108sqm for academic uses and an additional 4,364sqm of GFA for commercial use. Some 101,138sqm remains in the cap for academic use and 358,034sqm of commercial remains in the cap for commercial use.</p>
<p><b>A4 Consolidated Concept Plan</b></p> <p>A consolidated version of the Concept Plan, combining the approved components of the Environmental Assessment, Preferred Project Report, Statement of Commitments, and modifications required by this approval, is to be submitted to the Department within 3 months of the Concept Plan approval.</p>	<p>Not applicable.</p>
<p><b>A6 Approvals by the Director General</b></p> <p>If any of the terms of the approval specify that an agreement is to be made between the proponent and a government agency or council, all parties to the agreement are to act reasonably. If no agreement is reached within 3 months of the commencement of negotiations, the issue can be referred to the Director General for a decision. Full details of the discussions and the dispute are to be provided in order for the Director General to make a decision.</p>	<p>Not applicable.</p>
<p><b>A7 Lapsing of Approval</b></p> <p>Approval of the Concept Plan shall lapse 5 years after the determination date in Part A of Schedule 1, unless an application is submitted to carry out a development for which concept approval has been given.</p>	<p>The Concept Plan continues to be valid as the Australian Hearing Hub application (MP 10_0032) was submitted within five years of the approval; thus, the concept plan has not lapsed.</p>
<p><b>A8 Building Height</b></p> <p>The maximum height of any building on land identified within Macquarie University Concept Plan MP 06_0016 Height of</p>	<p>Not applicable.</p>

Buildings Map 003 is not to exceed the maximum height shown for the land.

### A9 Planning Secretary Directions

Consistent with the requirements in this approval, the Planning Secretary may make written directions to the Applicant in relation to:

- (a) the content of any guidelines, strategy, study, system, plan, program, review, notification, report or correspondence submitted under or otherwise made in relation to this approval, including those that are required to be, and have been, approved by the Planning Secretary; and
- (b) the implementation of any actions or measures contained in any such document referred to in (a) above.

Not applicable.

### 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.  
Note: variations to the car parking rates could be considered only where it can be demonstrated with certainty that upon completion of all development for commercial uses in accordance with the approved Concept Plan, compliance is achieved with the maximum prescribed car parking rate.
- (2) The maximum car parking across the campus is 10,800 spaces, comprising a maximum of 5,000 car parking spaces for commercial uses and 5,800 car parking spaces for other uses.
- (3) New car parking for commercial buildings 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.
- (4) The existing at-grade and above ground car parking areas within the site shall be consolidated into four carparks around the perimeter of the Academic Core (Precincts A and B). The design of any above ground carparks shall include architectural treatment of the elevations to reduce their visual impact and dominance.

There are 4,800 spaces left of the 5,800 space cap for other uses. The proposal is consistent with this provision as it provides 58 parking spaces, which is a minimal reduction from the cap. These spaces would be provided within the basement level. The Department considered the parking supply in **Section 6.2.3**.

### B2 Transport and Pedestrian Management

- (1)
  - (a) A 40% non-car mode share target shall be adopted for the academic and commercial uses on the site.
  - (b) A 62% non-car mode share target shall be adopted for the academic uses on the site.

The Applicant has indicated a 62% non-car mode share for the development. The Department has considered the operational traffic and sustainable



Concept plan approval requirement (as modified)	Department comment/assessment
<p>(2) A travel survey of the academic and commercial uses shall be undertaken every five years and identify the mode share achieved for each transport type. A report shall be submitted to the Director General of the Department of Planning and shall include a summary of the survey methodology and results and recommendations to achieve the targets identified in (1)(a) and (1)(b).</p>	<p>transport in <b>Section 6.2.6 and 6.5.</b></p>
<p><b>B3 Road works</b></p> <p>(1) Indicative timing and staging plans for road intersection upgrades forming part of the Concept Plan must 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. As part of any application that generates the need for the road intersection upgrades, details demonstrating compliance with any agreement or detailed plans for delivery of the upgrades must be provided.</p> <p>(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:</p> <p>(a) Epping Road / Balaclava Road intersection – additional through lane on Balaclava Road (south) and additional right turn lane on Balaclava Road (north)</p> <p>(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.</p> <p>(c) Waterloo Road / Herring Road intersection – left/through lane on Waterloo Road (east) and adjusted signal phasing.</p> <p>(d) Waterloo Road / Culloden Road intersection – realign Gymnasium Road to make fourth leg at roundabout and provide two lane circulating roundabout.</p> <p>(e) Talavera Road / Christie Road intersection – additional left turn slip lane, though lane/right turn lane on Talavera Road (east), departure lane becomes full traffic lane on Talavera Road (west) and adjusted signal phasing.</p> <p>(f) Talavera Road / Herring Road intersection – adjusted signal phasing.</p>	<p>Relevant road and intersection works are the subject of a planning agreement between the Department (on behalf of TfNSW) and the University. The terms of the planning agreement have now been agreed in principle and a formal offer has been made by the university.</p>
<p><b>B4 Design Excellence and Urban Design Guidelines</b></p> <p>(1) The Design Excellence Strategy and Urban Design Guidelines to be prepared are to have regard to Macquarie Park Corridor DCP.</p>	<p>The consolidated Design Excellence Strategy and Urban Design Guidelines (Guidelines) were approved as part of the approved</p>

Concept plan approval requirement (as modified)	Department comment/assessment
<p>(2) The Design Excellence Strategy and Urban Design Guidelines are to be prepared in consultation with Council and include provision for the accommodation of car parking in the basement of new buildings, including details in relation to the achievement of activated frontages, and details related to the provision of bicycle paths and associated facilities.</p> <p>(3) The Design Excellence Strategy and Urban Design Guidelines for Precinct E are to specifically address pedestrian crossing from the Macquarie Park railway station to the Academic Core, creating active frontages around the station particularly after hours, and integration of station services buildings into design of new buildings around the station plaza.</p> <p>(4) The Design Excellence Strategy and Urban Design Guidelines are to indicate the extent of setbacks required by the RTA. Such guidelines to be prepared in liaison with the RTA, having regard to the micro simulation modelling and the extent of setback required to achieve additional capacity improvements and bus priority.</p> <p>(5) The Design Excellence Strategy and Urban Design Guidelines are to be submitted to the Department of Planning when revised and include a version control section that clearly documents and justifies changes made from the previous version.</p> <p>(6) The Design Excellence Strategy and Urban Design Guidelines are to be revised to include overarching design principles in relation to height, depth, building separation and horizontal dimensions; and requirements to address public amenity along edges to the public forecourt of the railway station. The revisions must be submitted and approved by the Government Architect NSW within four months of approval of MP 06_0016 MOD 1.</p> <p>(7) An architectural design competition must be held in relation to proposed development on lots E10 and E11 where the Capital Investment Value of the development exceeds \$100 million, unless an alternative design process is endorsed by the Government Architect NSW or Planning Secretary. An architectural design competition means a competitive process conducted in accordance with procedures approved by the Planning Secretary from time to time.</p>	<p>modified concept plan (MP 06_0016 MOD 1).</p> <p>The revisions required under (6) to revise the Guidelines do not affect the development.</p> <p>The development site does not include lots E10 and E11 as identified in (7)</p> <p>The Department considered the Guidelines in <b>Section 6.1</b>.</p>
<p><b>B5 Setbacks</b></p> <p>(1) Road setbacks to facilitate additional capacity improvements and bus priority as identified in drawing University Avenue Revised Concept Plan, revision number P4, prepared by TaylorThomsonWhitting, dated 02.06.17, must be endorsed by Council. Any development adjoining the University Avenue,</p>	<p>Not applicable.</p>

Concept plan approval requirement (as modified)	Department comment/assessment
<p>Herring Road and Waterloo Road intersection must demonstrate the endorsed setbacks have been adhered to.</p> <p>(2) The setbacks referred to in (1) above must form part of the agreements referred to in C15 of this approval.</p>	
<p><b>C1 Staging of Development</b></p> <p>(1) The Proponent shall demonstrate with each application for building works that the proposed development represents the orderly and coordinated development such that:</p> <p>(a) It may be serviced by existing infrastructure, by infrastructure approved by this Concept Plan, or is capable of being serviced; and</p> <p>(b) Access for vehicles and pedestrians is available and can be made available.</p>	<p>Access to the proposed development was considered in <b>Section 6.1</b>. The Department considers that the proposal can be serviced by existing and proposed infrastructure.</p>
<p><b>C2 Urban Design Details</b></p> <p>(1) Future applications for increased height of buildings to the north of Macquarie University Station shall demonstrate by way of sections and elevations, the relationship of the proposed increase in building height with that approved by this Concept Plan.</p> <p>(2) Development within Station North (Precinct E) is to be set back 43 metres from the centre line of Waterloo Road. The Urban Design guidelines for Precinct E shall demonstrate by way of Sections and elevations how this setback is to be achieved, the proposal's relationship with the setbacks approved by this approval, as well as provision for activated frontages, and assessment of any adverse impacts including but not necessarily restricted to, visual impact and overshadowing.</p>	<p>Not applicable.</p>
<p><b>C3 Landscaping</b></p> <p>(1) The Landscape Management Plan referred to in 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:</p> <p>(a) Maintenance of the bush land setting of the site.</p> <p>(b) Achievement of the landscape principles articulated in the Statement of Commitments, and as shown in Figure 26 to the Environmental Assessment Report.</p> <p>(2) The Landscape Management Plan is to be prepared for each precinct and made publicly available on the University's website prior to or with the first application for new building works in each precinct.</p>	<p>The Urban Design Guidelines include a Landscape Management Plan. The proposal is generally consistent with the relevant principles of the Landscape Management Plan.</p>
<p><b>C4 Riparian Zone, Flooding and Stormwater</b></p>	<p>A satisfactory Stormwater Management Strategy was</p>

Concept plan approval requirement (as modified)	Department comment/assessment
<p>(1) The Stormwater Management Plan and other various plans referred to in the Statement of Commitments are to be:</p> <p>(a) Integrated with the Vegetation Management Plan and Threatened Species Plan referred to in the revised Statement of Commitments.</p> <p>(b) Revised in accordance with any modifications undertaken as part of this approval.</p> <p>A copy of the Stormwater Management Plan, as updated from time to time, must be published on the University's website.</p> <p>(2) A Stormwater Management Plan is to be submitted for approval with each application for new building works, as relevant.</p>	<p>submitted with the application.</p> <p>The Department considered stormwater and flooding in <b>Section 6.5</b>.</p>
<p><b>C5 Bushfire Protection</b></p> <p>(1) A Bushfire Management Plan is to be prepared in accordance with the requirements of 'Planning for Bushfire Protection 2006' (NSW Rural Fire Service), particularly in relation to Precinct B. The Bush Management Plan has to be prepared to the satisfaction of the NSW Rural Fire Service and submitted with each application for building works, as relevant.</p> <p>(2) Uses constituting 'Special Fire Protection Purposes' as defined in 'Planning for Bushfire Protection 2006' are to be undertaken in consultation with the NSW Rural Fire Service.</p>	<p>A bushfire hazard assessment was submitted in support of the application. RFS confirmed there are no objections to the development.</p>
<p><b>C6 Flora and Fauna</b></p> <p>(1) The Vegetation Management Plans, the Threatened Species Plan, and the Weed Management Plan referred to in the Statement of Commitments shall detail responsibility for each action, and shall include ongoing measures.</p> <p>(2) A copy of the Plans shall be published on the University's website.</p> <p>(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.</p>	<p>The Department has considered the impacts on flora and fauna and biodiversity in <b>Sections 4.9 and 6.4</b>.</p>
<p><b>C7 Environmentally Sustainable Development</b></p> <p>(1) The requirements in respect of environmentally sustainable development as set out at page 1 of the Statement of Commitments is to be submitted for approval with each new application for building works on the site, as relevant.</p>	<p>The Department considered commitments to ESD in <b>Section 4.5</b>, and has recommended conditions of consent.</p>
<p><b>C8 Environmental Management and Contamination</b></p> <p>(1) The hazardous material audit, a Phase 1 contamination assessment and a targeted Phase 2 intrusive contamination assessment (if required) referred to in the Statement of Commitments is to be prepared and be submitted for approval</p>	<p>The Department considered the Applicant's contamination assessment in <b>Section 6.5</b>.</p>

**Concept plan approval requirement (as modified)****Department comment/  
assessment**

with each application for building works, as relevant to the development.

**C9 Heritage / Archaeology**

- (1) The Aboriginal Archaeology Strategy referred to in the Statement of Commitments is to be prepared in liaison with the Metropolitan Local Aboriginal Land Council and is to be submitted for approval prior to or with the first application for new building works within each precinct.

The Strategy was replaced by the campus-wide Aboriginal Cultural Heritage Assessment Report (ACHAR). A separate ACHAR was provided in support of the application. The Department considered heritage and archaeology in **Section 6.5**.

**C10 Access, Traffic, Transport and Parking**

- (1) The University Travel Plan (UTP) referred to in the Statement of Commitments is to be prepared in liaison with Council and the RTA, and approved by the Department of Planning, prior to or with the first submission of the first application for building works for academic/educational uses within the Academic Core.
- (2) The detailed micro-simulation model referred to in the Statement of Commitments is to be prepared in liaison with Council, the RTA and the Ministry of Transport and submitted to the Department of Planning for approval prior to or with the submission of the first application for new commercial floor space on the site.
- (3) The micro simulation modelling is to be prepared on the basis that there will be no additional access to the M2 Hills Motorway.
- (4) The micro simulation modelling is to form the basis for discussion in respect of the agreement between the Minister and the Proponent referred to at C15 below.
- (5) A Workplace Travel Plan referred to in the Statement of Commitments is to be prepared for each commercial development and submitted for approval prior to the occupation of that commercial development.

The University Travel Plan has been approved by the Department.

A separate green travel plan was submitted with the EIS to assist in reducing car dependence and promoting active and public transport usage.

The Department considered traffic matters in **Section 6.3**.

**C11 Child Care Strategy**

- (1) The Child Care Strategy referred to on page 7 of the revised Statement of Commitments is to be prepared in consultation with Council and submitted for approval prior to or with the first application for new floor space.

The Strategy was conditionally approved by the Department on 14 December 2012 and was subsequently finalised on 7 November 2013.

**C12 Transitional Matters (Triangle South of University Avenue)**

Not applicable.

**Concept plan approval requirement (as modified)****Department comment/  
assessment**

- (1) As part of any future applications associated with the Cochlear development, the at-grade parking is to be relocated elsewhere and replaced with open space.

**C13 Construction Staging**

- (3) A Construction Management Plan, an Erosion and Sedimentation Plan, and a report detailing the existing geological conditions of each development site, and any potential geological impacts of development consistent with the Concept Plan must be submitted with any application for development and is to be integrated with any Vegetation Management Plan and Threatened Species Management Plan referred to in the Statement of Commitments.

A construction management plan, an erosion and sediment control plan and a geotechnical assessment were submitted in support of the application. The Department considered these in **Section 6.5**.

**C14 Utilities**

- (1) The following plans are to be prepared and approved by the relevant agencies prior to the submission of the first application for building works:
- (a) A detailed water supply infrastructure needs analysis is to be undertaken as indicated in the Statement of Commitments.
  - (b) A detailed service master plan is to be prepared.
  - (c) The water supply needs analysis and detailed service master plan to be prepared to the satisfaction of the relevant agency.
- (2) All electricity and other relevant services shall be accommodated underground, where ecological or landscape outcomes are not compromised.

An infrastructure management plan outlining that essential services are available at the site for connection and augmentation was submitted in support of the application. The Department considered servicing and utilities in **Section 6.5**.

**C15 Agency and Council Agreements**

- (1) Agreement(s) are to be made with the Minister for relevant road and intersection works or the provision of a monetary contribution in lieu of the upgrade of intersections, including any staging and bus priority measures, nominated under Conditions B3 prior to or with the first application for new commercial floor space on the site
- (2) Agreement(s) are to be made with Council for the construction of the shared use path on Epping Road, or the provision of a monetary contribution in lieu of the construction of the shared use path on Epping Road, in accordance with the terms of the offer dated November 2017 made by the Proponent to Council.
- (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 RMS standards and endorsed by a suitably qualified and chartered engineer and approved by the Department of Planning.

See **Section 6.5**.



- (4) The agreement(s) referred to in (1) above are to include provision for a Works Authorisation Deed for any works referred to in the agreement as may be required by the 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 RMS.
- (5) Agreement(s) 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".

## **Appendix D – Recommended Instrument of Consent**

The recommended instrument of consent can be found on the Department's website as follows:

<https://www.planningportal.nsw.gov.au/major-projects/project/31016>