



Molecular and Life Sciences Building

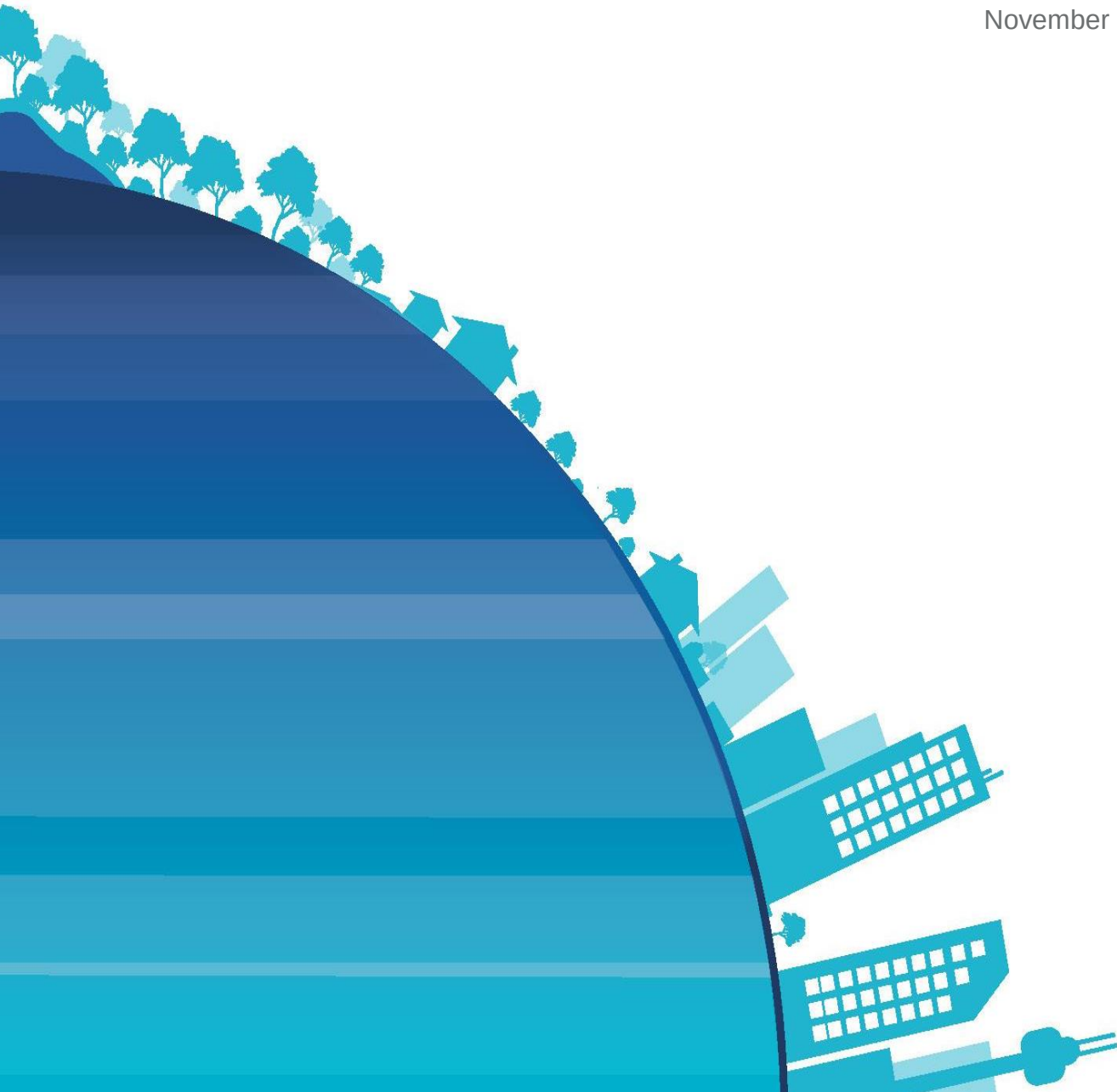
University of Wollongong

Response to Submissions Report

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Rev 1



Molecular and Life Sciences Building

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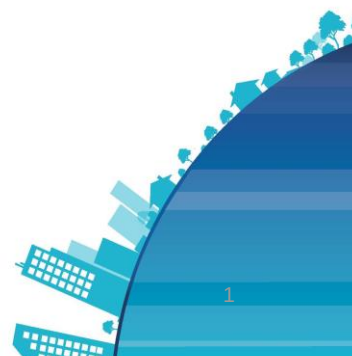
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1. Introduction

The Environmental Impact Statement (EIS) for the proposed Molecular and Life Sciences (MLS) Building at University of Wollongong (UOW) (SSD 8096) was publicly exhibited between 15 June 2017 and 31 July 2017. A total of eight submissions were received during the exhibition period, including seven from government agencies and one from the general public. No objections were received in relation to the development.

In a letter dated 8 August 2017, the Department of Planning and Environment (the Department) requested clarification on matters relating to the proposed construction hours, construction traffic impacts and sustainable transport initiatives. Jacobs has prepared an updated project description (Section 2) and a response to the issues raised in the submissions (Appendix A).

Having regard to the amended plans, response to the submissions/ requested clarifications, the proposed development has been demonstrated not to have significant impacts on the environment. We consider that this State significant development (SSD) is supportable on its merits, and the amendments and clarifications made within this comprehensive response further improves the overall outcome of the proposal.



2. Overview of Proposal

As identified in the EIS, the proposed development comprises a new five storey MLS Building located in the east precinct of the Campus. The new MLS Building would provide accommodation for approximately 150 researchers as well as a CRYO-EM microscopy suite. The world class facility will be at the centre of the Science, Medicine and Health precinct of UOW.

The south wing of the MLS Building would accommodate main vertical circulation, break-out and building amenities. The north wing optimises site constraints for the TEM and accommodates laboratory and office space. The new building would comprise the following facilities:

- Ground floor
 - CRYO-EM controlled atmosphere facilities
 - Lobby, informal learning spaces and service facilities
- First floor
 - Offices and labs
 - Conference facilities
 - A single bridge links the MLS Building Level 1 with Building 32 (IHMRI) Level 2
- Second floor
 - Offices and labs
 - Common areas including kitchen and break out spaces
- Third floor
 - Offices and labs
 - Meeting rooms
- Fourth floor
 - Animal house
 - Atmospheric chemistry labs
- Fifth floor
 - Astronomy and chemistry roof platform and instruments
 - Roof plant
- Sixth Floor
 - Roof plant
- Ground level external areas
 - Landscaping and paths
 - New substation in store south of Building 41.

The amendments included in this submission reiterates the above development however seeks amendments which directly respond to issues raised in submissions during the consultation period. The proposed design amendments are discussed in Section 4.

The MLS Building has been designed in with the coming together of four main elements as shown in **Figure 1**. Due to the sensitivity of the CRYO-EM Suite, it has been physically separated in a modular configuration on the ground floor. The CRYO-EM suites are on separate footings and slab to reduce any vibration interference from the surrounding environment. The supporting offices and labs specific to the CRYO-EM Suite are arranged around the suites within a glass sleeve.

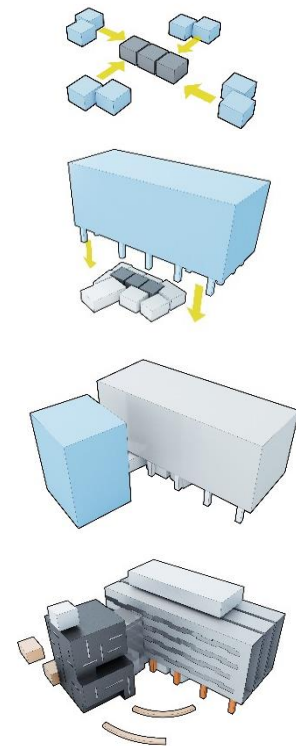
The second building element is made up of five floors of office, labs, break out spaces, stairs for vertical circulation and an animal house. This northern component of the building sits on top of the CRYO-EM Suite suspended on timber clad columns.

The third building element the primary access and circulation area including goods and passenger lifts, meeting rooms and some offices. The separation of this component of the building is essential to remove vibration opportunities as well as electromagnetic interference with the microscopes in the CRYO-EM suite.

The final element is the plant which comprises two levels on the northern wing and a single level on the southern wing. The plant on the southern wing also includes an atmospheric chemistry platform and the lift overrun.

The MLS Building is clad in a range of materials and finishes which are primarily varying shades of grey and expressed with a multitude of finishes interspersed glass and timber elements. The timber and glass features create warmth for the ground level users as well as transparency as to the use of the building. The building uses bold colours in feature locations on the building as well as grey on grey building identification symbols on the lift overrun enclosure to give the impression of prominence within the UOW environment and wayfinding.

Figure 1: MLS Building Structure



Source: DCM 2017

3. Accompanying Documentation

This response should be read in conjunction with the following attached documentation:

- Response to Submissions and Conditions Table
- University of Wollongong and TAFE parking agreement
- UoW Transport Survey 2015 - Survey and Strategy Summary
- Updated Acoustic Report
- Updated Preliminary Construction Management Plan
- Updated Preliminary Waste Management Plan
- Construction Traffic Management Plan Intersection Performance
- UOW Access Guides and Map
- Architectural Plans
- Survey
- Updated Landscape Plan
- Endeavour Energy Letter

4. Overview of Amendments to the Proposal

In response to the issues raised in submissions, as well as development in the design of the building and the needs of UOW facilities, amendments are proposed to the design. These changes are documented in the Architectural Plans included at Appendix I. The design changes are summarised in the following table:

Design Change	Justification
Change in colour of lift overrun to grey with building Identification sign also in grey	Reduce the perceived bulk and height of the building as seen from a distance at elevated viewpoints.
Reduced scope of the Project. These activities will now be undertaken as part of the Campus Infrastructure Improvement Program. The following scope is to be carried out by UOW in the immediate future under a separate approval path: - Construct new Illawarra Health and Medical Research Institute (IHMRI) infrastructure compound (east of B.41) including: - Relocation of an existing back-up generator - A new bottled gas store – being a replacement facility for a demolished building under item 2b below - New electrical substation 10 – replicating existing capacity removed elsewhere as part of Campus HV rationalisation works - New timber screen fencing to replication existing fencing / screening used elsewhere - As part of the same IHMRI compound works - Demolition of existing Building 66 (east of B.41) and its associated gas bottle store - Demolition of existing solvent store – as referred to above in 1b - Relocation of switchboard associated with existing substation 6 to a new location between Sciences Road and Building 41 as part of rationalisation works and the Faculty of Science, Medicine and Health (SMAH) utilities compound at Item 3 below - Decommissioning and future replication of substation 6 into the location identified under Item 3c. - Construct new SMAH infrastructure compound (south of B.41) including: - centralised and rationalised campus bulk Liquid Nitrogen Tank (7,500L), including vaporiser to service B.41; - SMAH campus bottled gas store; and - Location for new substation (which will eventually power MLS and is subject to the current SSD DA for that building). - SMAH Precinct, and campus-related utilities consolidation and rationalisation, including:	The infrastructure identified is required by UOW to support the UOW Master Plan 2036. These projects have been identified in the Campus Infrastructure Improvement Program. The Campus Infrastructure Improvement Program consists of a series of infrastructure improvement programs aimed at making University operations more effective and efficient, as well as building future proofing and resilience into the campus infrastructure provisions. The Campus Infrastructure Improvement Program generally includes (but is not limited to) the following types of improvements over time: - Electrical Infrastructure Improvements, including renewing and relocating substations, switchboards and cabling infrastructure; - Facility co-location, sharing and rationalisation arrangements including utility supply facilities and stores; and - General spatial rearrangement and clustering of other infrastructure including loading and service vehicle parking.

Design Change	Justification
• Relocation of the Fibre Optic Link and Communications Services bundle (North/South) • Relocation of the Fibre Optic Link and Communications Services bundle (East/West) • A range of diversion works of electrical services on-site interfering with TEM operations within B.41, and diversion and consolidation of existing building services including domestic cold water, fire services water and natural gas.	

5. Summary of Key Issues

This section summarises the matters identified by the Department of Planning and Environment (DPE) for clarification, as well as issues identified in submissions received during the public exhibition period requiring further assessment. Details are included in the response to submissions table in Appendix B as well as the detailed specialist reports. In summary this report has considered the responses received from DPE, agencies and the community during the exhibition and considers the proposal suitable for approval subject to the following clarifications.

Construction Hours

The hours of construction are proposed to be:

- 7am to 6pm Monday to Friday
- 7:30 am to 3:30pm on Saturday
- No work Sundays and Public Holidays

Construction hours outside of standard hours identified in the Environment Protection Authority's Interim Construction Noise Guidelines are required to meet the guidelines as set in the amended acoustic assessment report (Appendix E).

Construction traffic

No construction worker vehicle parking is provided onsite. Contractors will be required to transport workers to and from the site in buses or other multi person form of transport. This can be included as a contractual condition.

The updated Traffic and Transport Assessment (TTA) has assessed the impact of construction vehicles at key intersections and deemed these impacts acceptable. Further information is contained in the TTA.

UOW and TAFE have an agreement for vehicles that would otherwise park in the P5 extension car park to park within the TAFE car park while construction of the MLS Building and the P5 extension car park is underway.

Sustainable transport initiatives

UOW Transport Survey 2015 - Survey and Strategy Summary identifies not only the trends in the reduction on car reliance across the UOW Campus but also identified as a number of active transport and public transport initiatives that are aimed to further reduce the reliance on private vehicle transport to the site.

Further to the above summaries, the Department requested the following matters be clarified:

Construction jobs

- 77 construction jobs are anticipated to be created as a result of the MLS Building.

Gross Floor Area

- The total gross floor area of the MLS Building is 5,382m².

Roof Garden Locations

- Roof Garden 1 – There is a planter in the south eastern corner of level 2 of the south wing.
- Roof Garden 2 – There is a green roof in the in the connector of the north and south wings on level 4.

Building Identification Sign

The development has been amended to remove the red colour treatment to the lift overrun. The lift overrun will be clad in the same perforated metal which will be grey in colour. Building Identification Signage is proposed on the eastern and western facades of the lift overrun, also in grey. Building Identification Signs are permissible without consent in the SP2 zone under the provisions of the *Wollongong Local Environmental Plan 2009*.

6. Conclusion

This report considers the environmental, economic and social impacts of the MLS Building within the Wollongong campus and the wider Illawarra region. This report and the EIS thoroughly addresses matters identified in the SEARs and provides the timing and intent of wider campus improvements works that would support the MLS Building.

The assessment demonstrates consistency with Schedule 2 of the EP&A Regulations in relation to the relevant environmental planning instruments, policy and strategies. The assessment also addresses key assessment matters, such as; built form, environmental amenity, traffic and parking, regional socio-economic benefits and the efficient use of land.

The MLS Building generates significant public benefits and should be supported by the Minister for the following reasons:

- Improving research and education outcomes by providing state of the art research and educational facility with world class CRYO-EM microscopes
- Enhancing the research and educational facilities available on Campus, strengthening the role of the Wollongong Campus within the Education Precinct, and as part of the 'University City'
- Facilitating research opportunities with contemporary built environment that, through high quality architectural design of internal and external spaces, supports modern learning, administration and research practices
- Attracting both local and international scientists and researchers, which would increase knowledge sharing through the use of the facility
- Potential for a deeper understanding of molecular and life sciences in the medical and health fields, concentrating on generating public health improvements through better knowledge of health sciences and development of new medicines
- Increased opportunities for students and researchers in the region in a high quality and technologically advanced facility
- Generation of 77 construction and 81 operational jobs
- The proposal will include wayfinding within the University of Wollongong campus
- The design positively responds to the existing and evolving campus environment and connects in with the existing teaching and research facilities
- The proposed development of the MLS Building is in the public interest
- The proposed MLS Building adequately satisfies each item identified within the SEARs.

In summary, the development of the MLS Building at university of Wollongong warrants the support of the Minister. We therefore recommend that approval be granted to proposed development, subject to conditions.