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ARUP

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Dear Sir/Madam

Arts and Social Sciences Building, University of Wollongong (SSD8596) Response to acoustics-related development application concerns raised by EPA

Please find below responses to acoustics-related comments provided by NSW Environmental Protection Authority (EPA) in relation to the Development Application for the Arts and Social Sciences Building, University of Wollongong, as set out in letter DOC17/559015-15:CP (Attachment A), dated 22 November 2017.

Comment 4a

EPA Comment:

The noise assessment [R03_AcousticDAReport_Issue1, issued by Arup 27 October 2017] states that the nearest noise-sensitive receivers for the project are the Kooloobong Village (student accommodation) and the University of Wollongong Eaarly Start Facility. These receivers are located within the university premises. Based on the spatial services provided SIX Maps (NSW Department of Finance and Services) the residences along Dallas Street to the north of the carpark appear to be closer than the Kooloobong Village. Based on the acoustic assessment provided, the impacts on the nearest residential receivers to the north have not been assessed.

Arup Response:

We acknowledge the observation that Dallas St residences are in closer proximity to the Arts and Social Sciences Building site compared to Kooloobong Village, in terms of distance.

However we consider Kooloobong Village to be the most sensitive residential receiver in relation to the development, considering that the average ambient noise levels at Dallas St residences are likely higher than at Kooloobong Village, given the proximity of Dallas St residences to the Princes Motorway (making Kooloobong the more sensitive location to noise intrusion from external noise sources).

Furthermore, the low density housing along Dallas St will be less exposed to noise from rooftop plant, compared to the multi-storey Kooloobong Village.

Notwithstanding these considerations, noise emissions to the residences on Dallas St residences will be assessed.

Comment 4b

EPA Comment:

Table 9 in the Noise Assessment Report uses the recommended maximum amenity criteria instead of the recommended acceptable criteria to derive the project operational noise criteria.

Arup Response:

The Project Criteria (most onerous of Intrusive and Amenity criteria) provided in Table 9 of the Acoustic DA Report (Issue1) are set as the Intrusiveness criterion. The “Maximum” value of the amenity criterion was accidentally entered into this Table instead of the “Recommended” values, however since the Intrusiveness criterion is the most stringent and forms the project-specific criteria, this has had no effect on the overall assessment.

Comment 4c

EPA Comment:

The acoustic assessment indicates that operational noise associated with mechanical plant such as the rooftop plant will need to be attenuated, where necessary, in order to meet the project noise criteria at the surrounding sensitive receivers. The assessment identifies however that the mechanical plan equipment has yet to be selected.

Arup Response:

The project is currently in design phase and noise impacts to nearby noise-sensitive receivers is being assessed to meet the project criteria. At the time of writing of the SSD report, no mechanical selections were available, however the source-receiver distance is sufficiently great that noise mitigation can easily be incorporated into the project design to address noise impacts from mechanical plant.

Comment 4d

EPA Comment:

A preliminary quantitative construction noise assessment has been undertaken as the details of the construction processes and equipment that will be required have not been determined at the time of assessment. The acoustic assessment states that a more detailed review will be conducted by the contractor as part of the construction planning process. This information should be provided to clearly demonstrate that the selection construction processes and equipment comply with the specific project noise criteria.

Arup Response:

Noted. The Contractor will provide a detailed Construction Noise and Vibration Assessment and Management Plan at the appropriate project stage.

Prior to appointment of a Design and Construct contractor, details of the likely construction methodology for the project are not available, which means that meaningful construction noise predictions are not possible at this stage.

Comment 4e

EPA Comment:

For both the Early Start Facility and the Kooloobong Village, the predicted external construction noise levels provided in Table 11 of the Noise Assessment Report are significantly above the noise affected and highly noise affected management levels identified by the ICNG (Table 2). The predicted internal construction noise levels are also significantly above the management level identified by the ICNG (Table 3). No assessment against the management levels has been provided.

The report states that the selected contractor will provide a detailed Construction Noise and Vibration Assessment and Management Plan which will include processes for managing noise impacts to the nearby building to ensure that the internal noise levels meet the requirements of the ICNG. The external noise levels at the nearest residential receivers will also need to be managed. The management plan should include all reasonable and feasible measures to ensure both external and internal noise levels meet the requirements of the ICNG.

Arup Response:

Noted. The Contractor will provide a detailed Construction Noise and Vibration Assessment and Management Plan at the appropriate project stage, which will include feasible and reasonable management measures.

The Contractor will provide a construction noise management plan for the project. They are best positioned to do so, as details of the specific equipment and processes being used for the works needs to be known for the assessment.

Note below Comment 4

EPA Comment:

Note: The NSW Industrial Noise Policy (2000) was replaced by the Noise Policy for Industry (2017) in October 2017.

Arup Response:

In accordance with the EPA's implementation and transitional arrangement for the Noise Policy for Industry 2017, the assessment has been based on the NSW Industrial Noise Policy 2000 as:

- the SEARs were issued prior to the release of the new Policy, and
- the assessment had been completed prior to issue of the new Policy.

Please contact me if you have any questions regarding the above.

Yours faithfully

A handwritten signature in black ink, reading "Grant Cuthbert", is enclosed in a light grey rectangular box.

Grant Cuthbert
Acoustic Engineer

cc Alicia Desgrand (Ethos Urban)
 Erika Garbayo (University of Wollongong)
 Chris Field (Arup)