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**ATTN: JARROD WHITE** 

# 80-88 Regent Street, Redfern - Response to Council Comments

This letter details the response to the comments received from the City of Sydney Council regarding the DA Noise and Vibration Impact Assessment conducted for the 80-88 Regent Street, Redfern project.

The comments received from council and the responses are detailed below.

Comment - noise and vibration

32. Sydney DCP 2012 requires the following:

- an operational Plan of Management to allow consideration of potential noise impacts;
- the repeatable maximum LAeq1hour) must not exceed 40 dBA (Leq1hr) within the internal spaces of child care centres;

Recommendation - noise and vibration

 An Acoustic Assessment, including recommended noise attenuation measures and prepared by a suitably qualified acoustic consultant must be submitted with the development application to demonstrate that these provisions can be achieved.

The revised report includes the assessment for the proposed childcare centre and includes the criteria detailed in the comments received from council above. The report includes the recommended façade constructions to ensure the internal noise level criteria is achieved.

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The report includes treatments to the child care centre to ensure the relevant internal noise levels from surrounding environmental noise sources as well as noise from the child care centre to surrounding receivers. The relevant treatments and controls to the proposed child care centre includes the following;

- Children's outdoor play area to be operational between 8am and 6pm on any given day.
- Minimum 6.38mm laminated glazing with acoustic seals around perimeter is required, with minimum Rw of 30.
- Signs reminding staff and visitors to minimise noise at all times shall be installed at ingress/egress points from the child care centre.
- The underside of the building structure to the west which over hangs the proposed external area is to be acoustically absorptive treatment such as envirospray, absorptive insulation or the like. Treatments should be to a minimum of 40% of the soffit area. Details to be provided at the CC stage of the project.
- Management is to ensure children are supervised at all times to minimise noise generated by the children whenever practical and possible.
- Install a contact phone number at the front of the centre so that any complaints regarding centre operation can be made.

## Noise and vibration - general

### Comment

36. The site is surrounded by mixed development including residential receivers. Potential noise sources from the proposal include use of the communal rooftop courtyard and the proposed child care centre.

The use of communal areas on the development are not required to be acoustically assessed based on the requirements of the City of Sydney Council, the BCA or any other standard.

Noise levels associated with the use of the proposed communal area will vary depending on the activities being conducted at the time. Noise levels associated with communal area can vary from quiet use, ie lounging, reading book and the like, to noisy activities, generally generated by human voices and amplified music provided by portable devices. High noise activities are generally limited to short periods of time such as weekends or evening periods.

Activities associated with the proposed common areas are no different to the use of other open area on residential areas (including multi story residential developments) with gardens for children play areas, barbeques, pool areas and the like of other residential properties. As such, the control of noise impact to neighbouring properties is managed by limiting use of the common areas such that high noise generating activities are not generated during sensitive periods, such as evening and night time periods. This is generally associated with being part of the neighbourhood and exhibiting a good neighbourly attitude and the body corporate will include restrictions to the use of the area.

37. Existing and approved development also has potential to create noise disturbances for future residents of the proposal. There is significant roof top plant on the adjacent buildings to the west of the site as well as the approved student housing to the north. Potential impacts from surrounding plant have not been sufficiently accounted for.

As part of the assessment both long term unattended noise monitoring as well as attended noise measurements were undertaken to assess existing noise levels impacting the site from surrounding noise sources include the roadway, plant noise and other activities within the facility of the site.

The recommended treatments within the report are suitable to ensure that the all surrounding environmental noise source are suitably treated to ensure internal noise levels comply with the relevant noise level criteria.

As detailed plant selections for the proposed development are not available at this stage it is not possible to carry out a detailed examination of the ameliorative measures that may be required to achieve the noise targets.

Plant will be acoustically treated to prevent noise emissions from adversely impacting the surrounding properties in conjunction with the criteria detailed in this report. This may include selecting the quietest plant practicable, or treating the plant with enclosures, barriers, duct lining and silencers, etc as required to comply with the sound level recommendations.

Experience with similar projects indicates that it would be possible to achieve the requirement with appropriate treatment of the plant. General requirements for a number of potential plant items on the site are expanded on below.

## 1. Supply / Exhaust fans

Supply and exhaust fans may be located within the plant rooms or in rooftop plant areas. These units typically emit high noise levels and require acoustic treatment such as silencers and internal lined ductwork. Silencer requirements would be determined once fan selections have been completed.

## 2. Minor Plant

Other minor plant items, such as bathroom or kitchen exhaust fans, may also be required. These items typically emit relatively low noise levels and may require minimal acoustic treatment of a standard nature, such as internally lining of ductwork.

# 3. Condenser, heating and reverse cycling air conditioners

It is at the construction design stage that consideration should be given to the placement of external air conditioning/ heating/ reverse cycle air conditioning units.

The location of heating/cooling units is the most important factor to ensure noise is not going to be intrusive. The location and selection of the proposed units associated with the development will be conducted such that noise impact to both the future residential tenancies and existing receivers will comply with the relevant EPA criteria of the noise standard less 5dB(A) and compliance with this standard inside any other unit in the same complex .

38. The acoustic consultant has undertaken unattended long-term noise monitoring to establish background noise levels. The siting of the monitor for the purposes of establishing background noise levels across the site may not suitably represent the quieter areas of the proposal.

### Recommendation

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- A suitably qualified acoustic consultant is to be engaged to undertake and provide an acoustic assessment which follows the below scope of work:
  - a minimum of seven days long-term unattended noise monitoring is to be conducted in complete accordance with the NSW EPA Industrial Noise Policy (INP), being unaffected by extraneous noise and weather data to within the limits described by the Industrial Noise Policy. The following additional requirements are to be adhered to:
    - the location of the noise monitor is to be photographed and documented for the record;
    - the monitoring location is to be representative of the quieter areas
      of the proposal, and encapsulate the shielding at ground levels
      from road traffic noise naturally afforded by the built environment
      of the area. Monitoring data is not to be affected by any
      construction noise:
    - a suite of baseline environmental noise statistics are to be reported, inclusive RBL<sub>A90</sub> (both broadband and equivalent 1/1 octave band spectra), and Period LAeq levels;
    - the consultant is to undertake a series of attended measurements at varying elevations to account for the general elevated levels of road traffic noise and commercial noise in the area from medium distance sources. The consultant is to report on whether the unattended data is adequate to represent this impact with justification or undertake and report on further unattended monitoring as they see fit.

The noise logging conducted at the site has been conducted at the site to ascertain differences in the exiting background noise levels within the site. In addition to the background noise logging conducted at the site attended noise measurements were conducted at the site during a night time period, including location to the rear of the site on William Lane. Details of the recorded noise levels which have been used for the areas to the rear of the site (and are significantly lower than the background noise levels on the façade facing Regent Street) are detailed in the Section 5.2 of the report.

Based on both the unattended and attended noise levels conducted at the site the undertaken noise impact assessment for noise generated on the site is in compliance with the relevant City of Sydney Council, Australian Standards and EPA requirements.

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,

Acoustic Logic Consultancy Pty Ltd Ben White

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