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4 May 2022

Sandrick Project Directions
C/- Warwick Smith

Email: wsmith@sandrick.com
Revision: 01

Dear Warwick

SYD1685: SCEGGS Wilkinson House – 215 Forbes Street, Darlinghurst, NSW 2010
Response to SSDA Submission in Relation to SSD-19989744
Acoustic Response

The purpose of this is to address the community submissions received for SSD-19989744. This letter is specifically responding to the issues around construction noise, including the issues raised in the submission received from the Planning Hub dated 4 April 2022.

This letter is a complementary assessment to the acoustic report prepared by ADP dated 15 Oct 2021, Revision 2 with project number SYD1685.

In response to community submission, this letter will address the following issues:

1. Confirmation on construction noise criteria non-compliance and duration
2. Alternative construction methodologies
3. Proposed construction mitigation measures, including respite periods

1. Duration of Construction Non-Compliant with Criteria

The duration of the demolition, excavation and construction activities are proposed to be as described below.

- Demolition period: Months 1-5 (5 months in total)
- Excavation period: Months 6-8 (3 months in total)
- Construction of new structure: Months 9-11 (3 months in total)
- Works within the building: Month 12 (1 month duration)

It is noted that the northern and eastern masonry facades of the existing building will be retained. These facades will act as noise barriers for noise emissions to the nearest northern and eastern receivers.

The proposed equipment that produces high noise levels will mostly be used as below:

- Rock saws, rock breakers and jackhammers will mostly be used during demolition and excavation periods (up to 8 months).
- Concrete pump will mostly be used during the construction period (for approximately 3 months).

It should be noted that the calculated noise levels to the nearest noise sensitive receivers as presented in Table 19 of the ADP acoustic report dated 21 October 2021, are the highest predicted levels based on conservative assumptions. The noise levels will be lower than predicted when equipment is used further away from the receivers.

2. Alternative construction methodologies

Section 7 of the Noise Impact Assessment prepared by ADP, provides construction noise recommendations to manage airborne noise exceedances of the noise affected management level to the residential receivers at 184 Forbes Street, which have been calculated to be up to 12dB. It was noted that noise exceedances at the residential receivers will be from highly noise intrusive works, such as the use of jackhammers and equipment used during the demolition and excavation stages, which will last up to 8 months. We note that there were no exceedances of the highly noise affected management levels, that otherwise may trigger the requirement of respite periods as per Section 3.1 of the NIA.

The recommendations were based on the Interim Construction Noise Guideline (ICNG) for exceedances of the airborne noise management levels and included the following:

- Community notification
- Careful selection and maintenance of plant equipment
- Application of remedies on certain plant equipment, such as pneumatic jack hammers, demolition saws, concrete pumps, and excavators
- Barrier recommendations

In addition to the above listed recommendations, and to mitigate noise impacts to the nearest sensitive receivers, we recommend the following management controls be implemented:

- Highly noise intrusive works should not take place prior to 8am where noise levels would significantly exceed the construction noise management levels at the residential receivers. This would typically apply to hammering operations and use of excavators in the proximity of the residence
- Additionally, a respite period is to be implemented where excavator mounted hydraulic hammering works are required and will generate noise levels exceeding construction noise management levels. Recommended hours are as below:
    - Monday to Friday 9am – 12pm
    - Monday to Friday 2pm – 5pm

- Saturday 4 hours between the hours of 9am – 12pm and 2pm – 3:30pm

  The above hours may be modified in consultation with the surrounding receivers to minimise impact while not reducing the overall allowable hours per day

- Notification to the most affected residential receivers should be undertaken (via flyer or similar), informing occupiers of the expected duration of the noisy activities should be undertaken
- Attended noise measurements at surrounding properties at the beginning of the demolition works should be undertaken to quantify the level of noise typically emitted from the site and confirm the predictions/respite periods applied
- There will be periods of approximately 45 minutes to 1 hour per day for workers breaks. We recommended that all workers doing noisy works (such as use of jackhammer or impact drill) take their break at the same time, to provide more effective respite to the sensitive receivers

In addition to the above management controls for airborne noise impacts, the following are recommended for ground-borne noise and vibration impacts:

- Where feasible, pulverisers and other non-percussive methods should be used to demolish concrete structures
- Prior to the commencement of any activity likely to generate significant ground vibration (typically hammering), attended vibration monitoring is to be undertaken to establish "safe" working distances from the structures around the site

Regarding vehicular noise, the following are recommended:

- Trucks and forklifts in general on site are to use a non-tonal reversing beacon where possible (subject to OH&S requirements) to minimise potential disturbance of surrounding receivers
- Trucks, trailers and delivery vehicles are to turn off engines when idling to reduce noise impacts (unless required for concrete pumping or similar

3. Construction During School and Public Holidays

The standard hours for construction were determined in section 1.4 of the Noise Impact Assessment and were established based on the recommended standard hours of construction stated in the Interim Construction Noise Guideline (ICNG) and the City of Sydney Construction Site Noise Publication as detailed below:

- 7:30am to 5:30pm Monday to Friday
- 7:30am to 3:30pm Saturday
- No work on Sundays or public holidays

Based on the above, no construction works will occur during public holiday. Given that there is no separate recommended construction hour during school holiday, the recommendations provided in the Noise Impact report prepared by ADP, and the additional management controls in this letter (Section 1) will be applicable for the school holiday period. We note that there were no exceedances of the highly noise affected management levels at any receiver that may trigger the requirement of respite periods as described in Section 3.1 of the noise impact assessment.

The proposed construction hour already allows for respite period on public holiday and is consistent with governmental guideline, therefore, no additional respite period is required during school holiday.

4. Conclusion

Provided the mitigation techniques recommendations and procedures in the Noise Impact Assessment by ADP and the additional management controls presented in Section 1 of this letter are adopted, construction noise impact associated with the construction of the proposed development on surrounding land uses will be minimised.

There is a potential amenity impact on the nearest residential receiver at 184 Forbes Street, when highly noise generating works are being undertaken, mostly during the demolition and excavation stages which will last up to 8 months. Given alternative equipment is unlikely to be viable, specifically for highly noisy equipment, use of respite periods on the days when highly noisy equipment is being used should be considered (as outlined in Section 2 of this letter) to mitigate noise impacts.

We trust that the items referring to construction noise of the public submissions have been addressed. Please do not hesitate in contacting the undersigned with any further queries.

Yours sincerely,

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