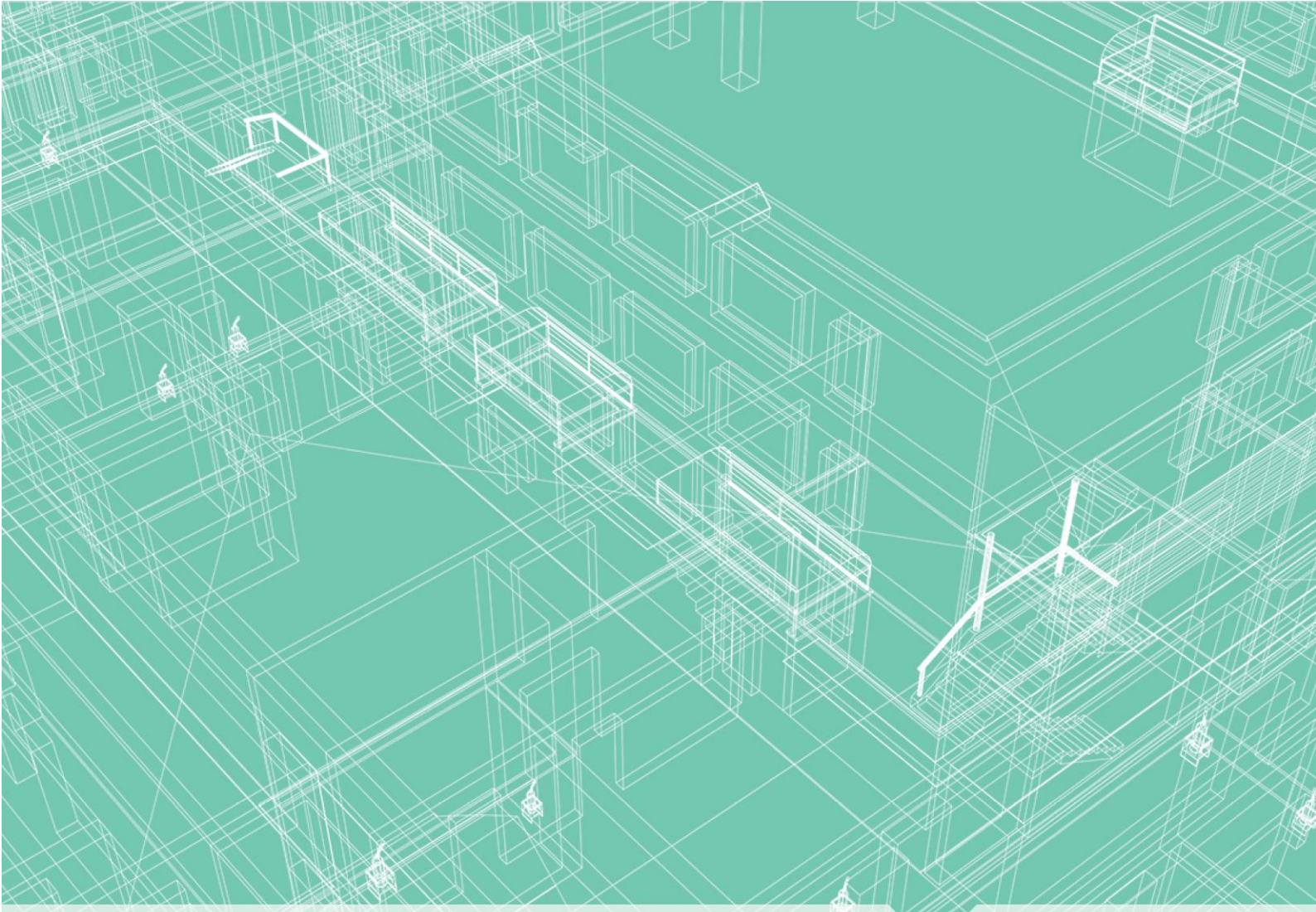

ACOUSTIC REPORT FOR OCCUPANCY CERTIFICATE

WENTWORTH POINT HIGH SCHOOL

JHA

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DOCUMENT CONTROL SHEET

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Project Name	Wentworth Point High School
Description	Acoustic Report for Occupancy Certificate
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1 INTRODUCTION

JHA Consulting Engineers has been engaged by School Infrastructure c/o Ernst & Young to provide an acoustic compliance testing report for Wentworth Point High School, located on 7 Burroway Road, Wentworth Point – legally known as Lot 1 DP1276305.

Acoustic compliance testing was conducted to address the requirements of Condition of Consent E8 of SSD-11802230.

On site noise measurements were conducted by JHA on Tuesday 7th of January 2025. The results of the testing have been presented in this report and assessed against the criteria in the Acoustics Report[1] for SSDA, prepared by Norman, Disney & Young, dated 08/06/2022.

The following documentation has been used for the preparation of this report:

- Acoustic Report for SSDA, prepared by Norman, Disney & Young, dated 08/06/2022.
- Conditions of Consent SSD-11802230.
- Noise data collected on site using a hand-held sound level meter.

All noise assessment / measurements were undertaken in accordance with the methodology described in the NSW Noise Policy for Industry 2017 (NPI).

This document and related work have been prepared following JHA Consulting Engineers Quality Management System, which is based on AS/NZS ISO 9001:2015 and ISO 14001:2015 Environmental Management Systems.

[1] Report, Acoustics – State Significant Development Application, Sydney Olympic Park New High School, NSW School Infrastructure, Norman, Disney & Young, dated 08/06/2022.

2 PROJECT CRITERIA

2.1 CONDITIONS OF CONSENT

Prior to the issue of Occupation Certification, the development must be compliant to conditions of consent. The acoustic requirements for this development are included in Condition E8 and is as follows:

"The Applicant must undertake short term noise monitoring in accordance with the Noise Policy for Industry (2017) where valid data is collected following the commencement of use. The monitoring program must be carried out by an appropriately qualified person and a monitoring report must be submitted to the Planning Secretary within two months of commencement of operation to verify that operational noise levels do not exceed the recommended noise levels for mechanical plant identified in the Acoustic Report, dated 8 June 2022 and prepared by Norman, Disney & Young. Should the noise monitoring program identify any exceedances of the recommended noise levels referred to above, the Applicant is required to implement appropriate noise attenuation measures so that operational noise levels do not exceed the recommended noise levels or provide attenuation measures at the affected noise sensitive receivers."

2.2 IDENTIFIED NOISE SENSITIVE RECEIVERS

Figure 1 shows the aerial map from the Acoustic Report showing the site boundary and surrounding receivers for Wentworth Point High School.

Figure 1: Wentworth Point High School aerial map and surrounding receivers. Source: Acoustic Report prepared by Norman, Disney & Young.

2.3 PROJECT TRIGGER NOISE LEVELS

Condition of Consent E8 of SSD-11802230 refers to the recommended noise levels from mechanical plant within the Acoustic Report for SSDA, prepared by Norman, Disney & Young. Project Noise Trigger Levels (PNTLs) from external mechanical plant as per acoustic report are shown in Table 1. The noise sensitive receivers are as per Figure 1.

Receiver	*Indicative Noise Amenity Area*	*Project Noise Trigger Levels $L_{eq,\ 15min}$ dB(A)*		
		Day	*Evening*	*Night*
2. 17 Wentworth Place 3. Block H 4. Proposed Mixed Use	Urban Residential	51	48	43

Table 1: Project Noise Trigger Levels taken from Acoustic Report.

3 ATTENDED NOISE SURVEY

3.1 METHODOLOGY AND EQUIPMENT

On Tuesday 7th January 2025 between 10:00am and 11:30am, attended noise measurements were undertaken during the day-time period Attended noise surveys were conducted by JHA in general accordance with the methodology described in the NPI.

Short-term noise measurements were carried out with a NTi XL-3 hand-held Type 1 Sound Level Meter (SLM) (Serial Number A3A-00494-D1). A Larson Davis Calibrator (Serial Number 15054) was used to check the calibration the SLM before and after each use, and no deviations were recorded. The SLM and calibrator were in current calibration at the time of use.

3.2 MEASUREMENT LOCATIONS

The SLM microphone was mounted 1.5 metres above the ground, and a windshield was used to protect the microphone. Measurements were undertaken in the free field – i.e., more than 1.5 metres away from any building façade or vertical reflective surface. Indicate survey locations are as per the locations shown in Figure 2.

Figure 2: Attended noise testing locations.

3.3 OPERATOR OBSERVATIONS

The following observations were made during the noise survey:

- Weather conditions were overcast sky, but dry and calm wind conditions during the noise survey.
- During the noise survey an active construction site on the adjacent Wentworth Point Primary School to the North-west of the site (receiver #1). Noise from this construction plant was clearly audible during the attended ground level measurements.

- A representative of EC Controls was present on site and advised JHA that all mechanical services (except the fume-cupboard) were running at full capacity.
- The rooftop fume-cupboard fans were not able to be made to run during the test. It is however expected that these fans will not be running continuously.

3.4 GROUND LEVEL RECEIVER MEASUREMENTS

Measurements were taken at ground level as per the locations shown in Figure 2. Measurements were taken with the mechanical plant running and not running, with the results provided in Table 2.

It is important to note that the acoustic measurements undertaken at the residential receiver locations were affected by general traffic noise and the adjacent construction site. The measurements taken at the mixed-use boundaries are not representative of the external mechanical plant noise emissions.

However, it is shown that typical ambient noise levels at the residential receivers do not vary significantly due to the plant associated with the development.

Location	*Scenario*	*Measured Noise Level dB(A) $L_{Aeq(5min)}$*
L1	WPHS plant not operating	65
L1	WPHS plant operating	60
L2	WPHS plant not operating	52
L2	WPHS plant operating	52

Table 2: Results of the attended noise measurements. Note: Due to the active adjacent construction site, 5-minute measurements were taken as opposed to 15-minute measurements.

The results from the ground level testing show that, at location L1, the ambient noise level recorded with no mechanical plant running, was higher than with the mechanical plant running. This was due to the piling rig operation during this ambient noise measurement (no rooftop plant running) on the nearby construction site.

At location L2, the ambient $L_{Aeq,5min}$ noise level measured with no mechanical plant running was the same as with mechanical plant running, i.e., 52dB(A). Therefore, at the time of measuring the noise levels, the noise level emissions from the rooftop mechanical plant did not contribute to the measured noise levels.

3.5 PREDICTED NOISE LEVELS AT RESIDENTIAL BOUNDARY

As previously noted, noise levels at the residential boundary were observed to be dominated by construction and traffic noise at the time of measurement. Therefore, additional noise measurements were taken at a closer distance to the equipment to predict noise levels at the nearest residential boundaries. Noise measurements at these locations were extrapolated to the relevant noise sensitive receives using the methodology described in Section 7 of the NPI.

1-minute measurements were taken on the rooftop at close distances (between 1m and 3m) to mechanical plant. A summary of the results of the noise measurements and locations are shown in Figure 3.

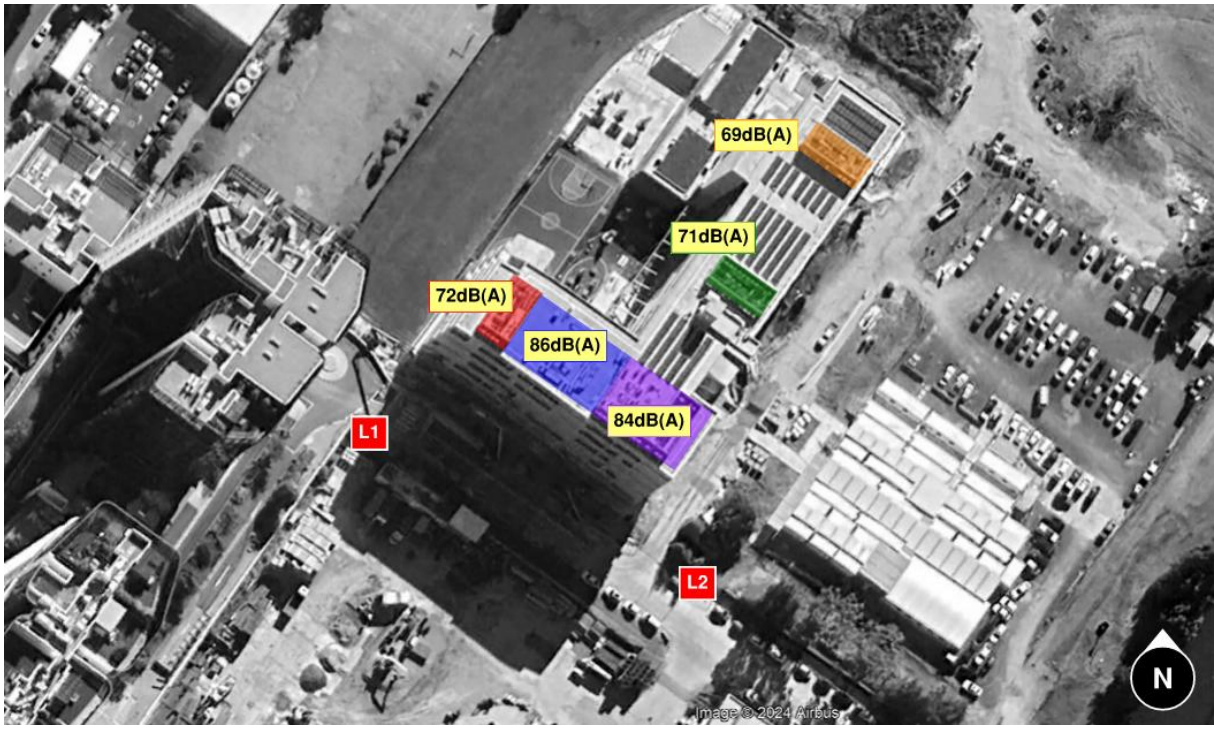

Figure 3: Rooftop noise measurements grouped into sections showing overall measured $L_{Aeq,1\ minute}$ vaules.

The predicted values at the nearest noise sensitive receivers, based on the measured noise levels in the rooftop, are shown below in Table 3. The distance-based calculations do not take into account any potential shielding and directivity of the noise sources. The methodology used is considered conservative. The receivers are as per Figure 1 and the criterion is as per Table 1.

Receiver / Type	*Type*	*PTNL dB(A)* $L_{eq,\ 15minute}$	*Predicted noise level at nearest receiver /*	*Complies?*
2 – 17 Wentworth Place	Residential	51	51	Yes
3 – Block H	Future Residential	51	60	No
4 – Proposed mixed use	Future Residential	51	53	Yes*

Table 3: Results of the predicted noise levels at the boundary of the nearest sensitive receivers. ***Note**: As per Table 4.1 of the NSW NPI, an exceedance of 2dB(A) is considered negligible.

The results from Table 3 show that compliance with the relevant noise criteria is predicted to the existing residential receiver 2 (as per Figure 1).

A minor exceedance of the noise criteria is predicted to the future mixed use / residential developments at residential receiver 4. However, the predicted 2dB(A) exceedance is considered negligible as the exceedance would not be discernible by the average listener, and therefore would not warrant receiver-based treatments or controls.

Exceedances of up to 9dB(A) are predicted at receiver 3. It is noted that the proposed mixed use residential developments at the locations of receivers 3 and 4 do not exist at the time of this report. It is recommended that noise mitigation measures are included for the noisiest fans (i.e. KEF, SAF, fume cupboard exhaust and dust extractor fans), to protect the amenity of the proposed mixed used developments. These should be

implemented at least 2 months prior to commencement of operation of the respective mixed-use developments.

As noted previously, the fume cupboard fans were not operational during the noise survey; therefore, these fans should be tested at a later date to confirm compliance with the future residential developments. However, it is expected that these fans will comply with the current residential receiver 2 (17 Wentworth Place) given the already high noise levels from the dust extractor fans and SAF fans. Furthermore, the fume cupboard fans are also not expected to run for more than 1 hour per day which would allow for an exceedance of 5dB(A) as per NSW NPI Table C3.

4 CONCLUSION

This statement of compliance is made in relation to the requirements of Condition of Consent E8 on the basis of the following general works undertaken by JHA Consulting Engineers:

- Review of Acoustic Report for SSDA, prepared by Norman, Disney & Young, dated 08/06/2022.
- Acoustic testing around the site on 7th January 2025.
- Noise predictions from the site to the identified nearby receivers.

JHA recommend that an interim Occupancy Certificate is provided for the Wentworth Point High School on the basis that the SSD-11802230 Condition of Consent E8 requirements are satisfied for the existing noise sensitive receivers.

It is recommended that noise mitigation measures are included for the noisiest fans (i.e. KEF, SAF, fume cupboard exhaust and dust extractor fans), to protect the amenity of the proposed mixed used developments South and East of the project. These should be implemented at least 2 months prior to commencement of operation of the respective mixed-use developments.

Full record of the acoustic testing is retained in our project files.

As a currently Member of Australian Acoustical Society (AAS), I am an appropriately qualified and competent acoustic consultant.

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Yours sincerely,

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