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Dear Michael

WPP MANCHESTER PLANT NOISE

This letter looks to address the following planning condition:

“Externally mounted ancillary plant, equipment and servicing shall be selected and/or acoustically treated in accordance with a scheme designed so as to achieve a noise level of 5dB below the existing background (LA90) in each octave band at the nearest noise sensitive location. The scheme should be submitted to and approved in writing by the City Council as local planning authority prior to the first occupation of the development, in order to secure a reduction in the level of noise emanating from the site.”

Measurements were taken at 1m from the plant enclosure on the roof of the development. Measurements of plant items were undertaken on Thursday 8th March 2023, Measurements were taken at 1m from the plant enclosure on the roof of the development where all plant items are housed.

Table 1 – Measured Levels

Plant Description	Measurement	Measured Sound Pressure Level (dB re 20x10 ⁻⁶ Pa.) @ Octave Band Centre Frequency (Hz)							
		63	125	250	500	1k	2k	4k	8k
N/A	Residual Sound Level	65	64	58	53	52	47	43	32
1m From Plant Enclosure	All Plant On	69	68	56	51	50	49	43	40



In correcting the ambient sound level measurements of the plant for residual sound, the following specific sound levels of the plant are obtained.

Table 2 – Specific Sound Level

Plant Description	Specific Sound Pressure Level (dB re 20x10 ⁻⁶ Pa.) @ Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
1m From Plant Enclosure	66	66	56*	53*	52*	43	31	39

*Measured residual level was higher than measurements with plant on therefore the higher octave band level of the two measurements has been taken.

Finally, correcting the above specific sound levels of plant for distance and screening, the following cumulative sound levels are predicted at the façade of the nearest affected noise sensitive property.

Table 3 – Calculated Noise Rating Levels at Receptors

Noise Sensitive Receptor	Operating Time Period	Prediction
Receptor 1	Daytime (07:00 – 23:00)	35
	Night-time (23:00 – 07:00)	35

It should be noted that the above predictions are considered worst case, since in most octave bands the plant noise was not measurable (i.e. the noise level with plant off was the same as with the plant noise on). In addition to this, the plant noise measurements are likely to include contributions from landlord plant in addition to the installed tenant plant.

We understand (based on the Sandy Brown landlord acoustic report) that the planning noise limits are as follows:

- Daytime (07:00 to 23:00) – L_{Aeq} 43 dB
- Night time (23:00 to 07:00) – L_{Aeq} 35 dB

As such, it can be seen that despite the measurement being ‘worst case’, both the daytime and night time limit are met.

Yours sincerely,
For RBA Acoustics



James Melville