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Dear Phil

UNIT T5, CIRCLE SQUARE 5&6, MANCHESTER

I write with confirmation of the results of the acoustic assessment of the building services plant at Unit T5, Vita Living North, Circle Square, Manchester.

INTRODUCTION

Fisher Acoustics Ltd has been commissioned by Select Property to determine the expected external noise levels generated by the proposed building services plant installed at Unit T5, Vita Living North, Circle Square, Manchester and to assess the expected noise levels in relation to the planning permission for the development.

PLANNING CONDITION

In relation to building services plant, the planning permission for Blocks 5 and 6, now referred to as Vita Living North, Circle Square (planning application number 116450/FO/2017 states:

Condition 15:

- *"Prior to occupation of the development a scheme for the acoustic insulation of any externally mounted ancillary equipment to ensure that it achieves a background noise level of 5dB below the existing background (LA90) in each octave band at the nearest noise sensitive location shall be submitted to and approved in writing by the City Council as local planning authority in order to secure a reduction in the level of noise emanating from the equipment. The approved scheme shall be implemented prior to occupancy and shall remain operational thereafter.*

  Reason - To safeguard the amenities of the occupiers of nearby residential accommodation, pursuant to policies SP1 and DM1 of the Core Strategy

The planning condition, which dates back to 2016, refers to compliance with octave band noise limits. However, 'Planning & Noise, Technical Guidance', dated October 2022, issued by the Environmental Protection, Environmental Health and The Neighbourhoods Service sections of Manchester City Council, includes the most recent version of the plant noise planning condition. In particular, Section 3.7.1.5 of 'Planning & Noise, Technical Guidance' states:

- '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 rating level of 5dB (L_{Aeq}) below the typical background (L_{A90}) level at the nearest noise sensitive location'

Given that the Planning & Noise document is the more recent publication, it is proposed to achieve the plant noise criterion stated above.

SITE LOCATION

Unit T5 is located on the ground floor of Vita Living North, Circle Square, Manchester. The approximate footprint of Unit T5 is identified in blue in Figure 1. The buildings outlined in green in Figure 1 are the closest residential buildings to the unit.



Figure 1: Site aerial view, Circle Square

PRE-EXISTING NOISE LEVELS & ENVIRONMENTAL NOISE STUDIES

A number of environmental noise studies have been carried out in relation to planning applications for various buildings within the Circle Square masterplan. These studies have included the determination of environmental noise limits for building services plant such that compliance with the plant noise criterion given in 'Planning & Noise, Technical Guidance' can be achieved.

The plant noise limits determined by the noise studies for various projects at Circle Square are identified in Table 1.

Planning application reference	Development	Plant noise limit, (dB L_{Aeq}) Daytime (07:00– 23:00)
111027/FO/2016/C1	Circle Square Masterplan	47
114863/FO/2016	Circle Square Plot 9	47
134288/FO/2022	Circle Square Plot 3	54

Table 1: Plant noise limits determined by Circle Square noise studies

It will be noted that the more recent noise study referenced in Table 1 resulted in a higher (less onerous) plant noise limit than the previous studies.

Ambient and background noise measurements were carried out by Fisher Acoustics in October 2025 towards the southern elevation of Vita Living North. These measurements determined a typical daytime background noise level of 59 dB L_{A90}. Therefore, in order to comply with 'Planning & Noise, Technical Guidance' published by Manchester City Council, a plant noise rating level limit of 54 dB LAeq should be achieved by the building services plant in question.

However, to be in line with the recommendations of the original planning submission documents for the development, it is recommended that the most stringent of the noise criteria identified in Table 1 is designed to.

It is understood that the building services plant that will serve the proposed unit will only be operational between the hours of 7am and 11pm. It is therefore recommended that the plant achieves a rating level no greater than 47 dB LAeq at the closest residential facades during the day (7am to 11pm). The nearest noise sensitive receptors to Unit T5 are the residential apartments within Vita Living North, located two storeys above the unit.

BUILDING SERVICES PLANT

The following plant items are installed internal to the building to serve Unit T5:

- 1 no. extract fan, Vent-Axia ACM200 axial fan
- 1 no condenser, Mitsubishi PUZ-ZM50VKA2

Figure 2 identifies the location of the extract fan and the condenser. The extract fan is located at high level within Unit T5. The condenser is installed in a louvred plant space on the Mezzanine floor of Vita Living North.

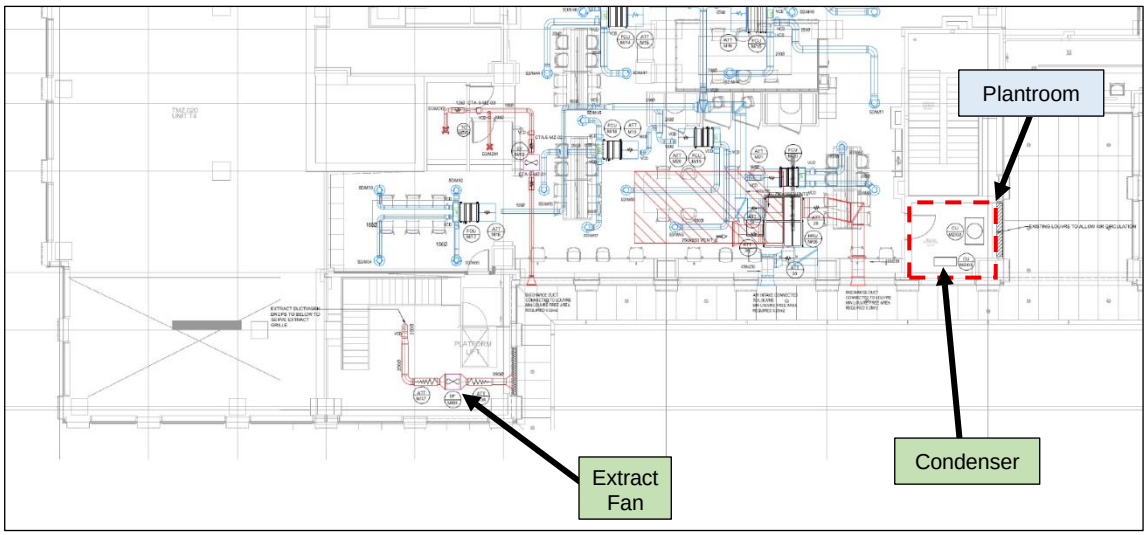


Figure 2: Mezzanine floor plan**,** Vita Living North, Circle Square

Table 2 identifies the reported sound power levels of the extract fan.

Building services plant item	Sound Power Level (dB re 1 x 10^{-12} Watts)							
	dB(A)	Octave Band Centre Frequency (Hz)						
		63	125	250	500	1k	2k	4k
Vent-Axia ACM200 Extract Fan, 1 no.	74	63	68	69	73	70	60	62

Table 2: Sound power levels of ground and Mezzanine floor mounted plant

Table 3 identifies the reported insertion losses of the exhaust attenuator fitted to the extract fan.

Building services plant item	Static Insertion loss, Octave Band Centre Frequency (Hz)						
	63	125	250	500	1k	2k	4k
Extract Fan attenuator	2	3	7	18	25	19	17

Table 3: Reported insertion loss of extract fan exhaust attenuator

Measurements of noise due to the operation of the condenser that serves Unit T5 have been carried out in the plantroom. Table 4 identifies the measured sound pressure levels in the plantroom due solely to the operation of the condenser that serves Unit T5. These measured internal sound pressure levels have been used to determine the external noise levels at the nearest noise sensitive receptors due to noise breakout via the plantroom louvres.

Building services plant item	Measured Sound Pressure Level (dB LAeq)							
	dB(A)	Octave Band Centre Frequency (Hz)						
		63	125	250	500	1k	2k	4k
Plantroom condenser, 1 no.	54.7	48.7	56.0	53.0	52.4	49.7	45.6	42.6

Table 4: Measured sound pressure levels in mezzanine plantroom due to Unit T5 condenser

CALCULATED EXTERNAL NOISE LEVELS DUE TO BUILDING SERVICES PLANT

Based on the reported sound power levels of the extract fan, the insertion loss of the extract fan attenuator and the measured sound pressure level within the plantroom due to the operation of the condenser, the expected noise level at the nearest noise sensitive façade due to the simultaneous operation of the building services plant that serves Unit T5 has been calculated.

The calculated noise levels are identified in Table 5.

Location	Free-field Rating Level (dB LAeq)	
	Day Time	Noise Limit
Vita Living North, Level 1	38	47

Table 5: Calculated plant noise level at the nearest noise sensitive locations

It can be seen that the calculated noise level at the nearest residential facades due to the building services plant that serves Unit T5 complies with the applicable noise limits.

CONCLUSION

Based on the reported sound level data for the building services plant that serves Unit T5, the calculated noise level due to the plant complies with the applicable noise limit at the nearest noise-sensitive receptors.

Compliance with the requirements of Planning Condition 15 relating to noise from building services plant is therefore expected.

If there are any aspects that you would like to discuss, please do not hesitate to contact the undersigned.

Yours sincerely

[redacted]

MATT FISHER BEng(Hons) CEng MIOA
For and on behalf of Fisher Acoustics Limited