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Dear Patrick

7 RAINFORTH STREET, MANCHESTER RESIDENTIAL DEVELOPMENT – PRE-COMMENCEMENT CONDITION 11

Further to receipt of the design proposals for the above project we are pleased to present our findings as detailed below.

1.0 Introduction

Lighthouse Acoustics has been appointed by Views to undertake an acoustic review of proposed glazing, ventilation and mechanical systems for the proposed development at 7 Rainforth Street, Manchester.

The proposed development comprises the change of use of the existing 5 storey building (including basement) from commercial to form 6 residential flats at 1st, 2nd and 3rd floors with a retail unit at ground and basement floors.

The acoustic review for the proposed development is presented in this correspondence.

2.0 Objectives

To review the sound insulation performance of the proposed glazing system and comment on the suitability in terms of achieving the specified acoustic performance.

To review the sound insulation performance of the proposed ventilation system and comment on the suitability in terms of achieving the specified acoustic performance.

To undertake an assessment of atmospheric plant noise emission levels from the proposed mechanical ventilation system upon the nearest noise sensitive receptor and to propose mitigation measures where required in order to minimise plant noise.

3.0 Acoustic Performance

The acoustic performance for the glazing, ventilation and mechanical systems is detailed in our Acoustic Planning Report 0586/APR2 dated 29 November 2022.

4.0 Glazing System

The assessment has been based on the following drawings.

Author	Drawing No.	Revision	Date
Create It Studios (NW) Ltd	A1265(02)AP004	P5	03/05/23
	A1265(02)AP005	P5	03/05/23

The drawings indicate the proposed glazing configuration for each window to the proposed residential flats.

The table below presents the sound insulation performance for the proposed Dual Seal Glass glazing configurations.

Glazing Configuration	Sound Reduction Index (dB) at Octave Band Centre Frequency (Hz)						R _w (dB)
	125	250	500	1k	2k	4k	
8mm/16mm/10.8mm	28	30	37	42	41	53	40
6mm/16mm/10mm	26	27	34	40	38	46	38
4mm/16mm/6mm	24	21	29	43	43	45	34

A review of the above drawings and sound insulation performance indicates that the required acoustic performance should be achieved by the proposed glazing.

5.0 Ventilation System

The assessment has been based on the following drawings.

Author	Drawing No.	Revision	Date
Create It Studios (NW) Ltd	A1265(02)AP004	P5	03/05/23
	A1265(02)AP005	P5	03/05/23

The drawings indicate the proposed model number for each ventilator to the proposed residential flats.

The table below presents sound insulation performance for the proposed ventilators.

Ventilator Type	Element Normalised Level Difference, $D_{n,e}$ (dB) in Open Position at Octave Band Centre Frequency (Hz)								$D_{n,e,w}$ (dB)
	63	125	250	500	1k	2k	4k	8k	
Greenwood MA3051	42	48	46	49	54	65	65	65	55
Greenwood EAR42W	27	33	39	39	43	50	50	50	42

A review of the above drawings and sound insulation performance indicates that the required acoustic performance should be achieved by the proposed ventilations.

6.0 Mechanical System

The assessment has been based on the following mechanical systems.

Mechanical System	Model Number	Manufacturers Noise Data
Bathroom Extractor Fan	Envirovent Silent 100	Sound Pressure Level of 27dBA at 3m

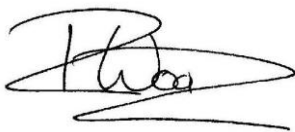
A review of the above bathroom extractor fan indicates that the required acoustic performance should be achieved by the proposed ventilation system both internally and externally at the nearest noise sensitive receptor.

7.0 Conclusion

An acoustic review of proposed glazing, ventilation and mechanical systems has been undertaken for the proposed development at 7 Rainforth Street, Manchester.

The review indicates that the required acoustic performance should be achieved by the proposed glazing, ventilation and mechanical systems.

Yours sincerely
for LIGHTHOUSE ACOUSTICS



Robin Wood