

TO: Manchester City Council, Environmental Protection Team

FROM: Adam Barr, JPM Acoustics Ltd

SUBJECT: 55 Newton Street, Post Completion Verification Report

DATE: 26 May 2023

Introduction

This note constitutes a post completion verification report as required by Planning Condition 8 imposed on the 55 Newton Street development (Planning Reference: 120878/FO/2018). It is understood that Planning Condition 8 has been partially discharged (Planning Reference: CDN/22/0942) and the remaining elements to discharge are as follows:

"The approved noise insulation scheme and vibration and reradiated noise mitigation measures shall be completed before any of the dwelling units are occupied.

The following noise criteria will be required to be achieved:

- *Bedrooms (night time - 23.00 - 07.00) 30 dB LAeq (individual noise events shall not exceed 45 dB LAmax,F by more than 15 times)*
- *Living Rooms (daytime - 07.00 - 23.00) 35 dB LAeq*
- *Gardens and terraces (daytime) 55 dB LAeq*

Prior to occupation a post completion report to verify that all of the recommended mitigation measures have been installed and effectively mitigate any potential adverse noise impacts in the residential accommodation shall be submitted and agreed in writing by the City Council as local planning authority. Prior to occupation any non compliance shall be suitably mitigated in accordance with an agreed scheme."

Acoustic Testing

Acoustic Testing has been undertaken within the completed development to demonstrate compliance with the noise level criteria from Planning Condition 8. The testing was undertaken between the 22nd and 23rd May 2023.

Testing was undertaken by JPM Acoustics in a completed first-floor living room overlooking Newton Street and Bradley's Court for a 24-hour period to determine the internal noise levels within the completed development. Testing could not be undertaken in the ground floor bedrooms and kitchen as the roller shutters, which cover the windows on Newton Street, were required to remain closed during the night-time period for security on the construction site. The test equipment used during the testing is detailed within **Table 1**.

Table 1: Measurement Equipment

Equipment	Make and Model	Serial Number	Calibration Due Date
Sound Level Meter	Svantek SVAN 971	80342	10/11/2024
Microphone	Aco Pacific 7052E	71683	
Pre-amplifier	Svantek SV18	71576	
Calibrator	B&K DB0311	449050	10/11/2023

Construction work was ongoing on the site between 08:00 and 15:00 therefore, daytime noise levels were determined between 15:00 and 23:00 and 07:00 and 08:00, to ensure that the measurements were not affected by construction noise.

The living room was entirely unfurnished during the testing, therefore the measurements were corrected for reverberation time, to determine noise levels in the spaces once furnished. Night-time noise levels were determined for bedrooms by correcting for reverberation time and the reduced number of vents in the bedroom spaces (only 1 openable vent rather than the 3 open vents during the testing).

The glazing configuration and ventilators used in the ground floor bedrooms were the same as those in the first-floor living room.

Table 2 details the sound pressure levels in the first-floor living room and ground floor bedrooms spaces (the worst affected spaces).

Table 2: Summary of Sound Pressure Levels

Start Date and Time	Period	Space	dB L _{AFmax}	dB L _{Aeq,T}
22/05/2023 15:00	Living Room	Daytime ¹ (07:00 – 23:00)	-	35
22/05/2023 15:00	Bedrooms	Daytime ¹ (07:00 – 23:00)	-	33
22/05/2023 07:00	Bedrooms	Night-time (23:00 – 07:00)	45 ²	29

¹ includes periods between 15:00 and 23:00 on 22/05/2023 and between 07:00 and 08:00 on 23/05/2023.
² 15th highest discrete event during the night-time

It can be seen from **Table 2** that Manchester City Council's criteria for the daytime and night-time are being achieved in the tested dwelling. Therefore, Planning Condition 8 should be fully discharged.

Appendix A shows photographs of the glazing and ventilators installed in the living rooms and ground floor bedrooms which comply with the requirements of the JPM Acoustics Noise Impact Assessment report and the noise insulation scheme agreed with Manchester City Council.

Appendix B shows the measurement location adopted during the survey.

Appendix A: Site Photographs

Figure A.1: Ground Floor Bedroom Glazing and Ventilators



Figure A.2: First-floor Living Room Glazing and Ventilators



Appendix B: Photograph of Measurement Location

