

TO: Richard Frain, 60 Oldham Street Ltd

FROM: Adam Barr, JPM Acoustics Ltd

SUBJECT: 60 Oldham Street, Post Completion Verification Report

DATE: 09 February 2021

Introduction

This note constitutes a post completion verification report as required by Planning Condition 5 and Planning Condition 13 imposed on the 60 Oldham Street development (Planning Reference: 120878/FO/2018). It is understood that Planning Conditions 5 and 13 have been partially discharged (Planning Reference: CDN/19/0510) and the remaining elements to discharge are as follows:

For Planning Condition 5:

"Prior to any commencement of an A3 / A4 use a post completion report to verify that all of the recommended mitigation measures have been installed and effectively mitigate any potential adverse noise impacts affecting the residential accommodation within the building (in line with the criteria set out in points 1 and 2 above) from noise from the A3/ A4 use within the building, must be formally submitted to and approved in writing by the City Council as local planning authority."

For Planning Condition 13:

"Prior to occupation of any residential unit a post completion report to verify that all of the recommended mitigation measures have been installed and effectively mitigate any potential adverse noise impacts affecting the residential accommodation (in line with the criteria set out in points 1 and 2 above) from external and adjacent noise sources including other uses within the building must be formally submitted to and approved in writing by the City Council as local planning authority. "

Planning Condition 5

MCC's criteria for noise transfer from the restaurant/bar to residential dwellings above are understood to be as follows:

"Music noise levels in the 63Hz and 125Hz octave centre frequency bands (Leq) should be controlled so as not to exceed (in habitable rooms) 47dB and 41dB (Leq), respectively"

The ceiling installed between the ground floor bar/restaurant and residential dwellings above is understood to be as follows:

- 421 mm deep posi-joists;
- double-board to the underside of the joists with 2 layers of 12.5 mm plasterboard with 50 mm mineral wool between the joists; and
- a suspended ceiling on resilient hangers with a minimum 200 mm cavity, with 2 layers of 15 mm SoundBloc board with 50 mm mineral wool in the cavity above the suspended ceiling.

Table 1 presents a summary of predicted noise levels in habitable areas above the ground level restaurant. The predictions draw on the results of an airborne sound insulation test of the separating floor undertaken by Peak Acoustics Ltd on 8th January 2020 and typical restaurant noise levels taken from JPM Acoustics' planning report for the scheme.

Table 1: Predicted Noise Levels in First Floor Apartments

Description	Octave Band Centre Frequency (Hz)						dB(A)/D _{nT,w}
	63	125	250	500	1000	2000	
Typical Restaurant Noise Levels, Leq, dB	65	74	69	75	75	71	78
Measured Floor Performance, D _{nT} , dB	30	39	50	58	61	60	58
Predicted Noise Level in First Floor Bedroom, Leq, dB	35	35	19	17	14	11	22

It can be seen from **Table 1** above that MCC's criteria are achieved in the 63 Hz and 125 Hz octave band. In addition, the 35 dB L_{Aeq,16h} daytime desirable guideline value criteria from BS 8233 is also predicted to be achieved by a margin of 13 dB. The restaurant/bar does not operate during the night-time period (23:00 – 07:00).

Given the above, it is considered that residents of the first floor apartments are suitably protected, and that Planning Condition 5 should be fully discharged.

Planning Condition 13

It is understood that details of the installed glazing and ventilation units have been provided to the local authority and that verification testing has been requested by MCC for 10% of apartments, to verify that suitable internal noise levels have been achieved. As there are eight apartments in total, one test is required.

The following criteria have been requested to be achieved by MCC:

“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”

Testing was undertaken by JPM Acoustics in a completed bedroom overlooking Spear Street for a 24-hour period to determine the internal noise levels within the completed development. The test equipment used during the testing is detailed within **Table 2**.

Table 2: Measurement Equipment

Equipment	Make and Model	Serial Number	Calibration Due Date
Sound Level Meter	Svantek SVAN 971	80342	27/08/2022
Microphone	Aco Pacific 7052E	71683	
Pre-amplifier	Svantek SV18	71576	
Calibrator	B&K DB0311	449050	19/08/2022

Table 3 details the measured noise levels during the 24-hour measurement in the bedroom overlooking Spear Street.

Table 3: Summary of Measured Sound Pressure Levels in Bedroom Overlooking Spear Street

Start Date and Time	Period	dB LA _{Fmax}	dB LA _{eq,T}
31/01/2022 15:15	Daytime ¹ (07:00 – 23:00)	-	29
01/02/2022 23:00	Night-time (23:00 – 07:00)	44 ²	26

¹ includes periods between 13:15 and 23:00 on 31/01/2022 and between 07:00 and 15:15 on 01/02/22

² 15th highest discrete event during the night-time

It can be seen from **Table 3** that MCC's criteria for the daytime and night-time are being achieved in the tested apartment. Therefore, Planning Condition 13 should be fully discharged.

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