Unit 2
One Port Street
Manchester

Acoustic Commissioning Report
1605/ACR1

5 August 2026

For:

The Wilco Test Ltd

LIGHTHOUSE ACOUSTICS

2nd Floor 3 Hardman Square
Spinningfields Manchester M3 3EB

☏ 0161 457 0515 ▪ 07415 151 901
✉ Enquiry@LighthouseAcoustics.co.uk
🌍 www.LighthouseAcoustics.co.uk

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1.0 Introduction

Lighthouse Acoustics has been appointed by The Wilco Test Ltd to visit site in conjunction with an audio engineer to set the noise limiter device for the in-house loudspeaker system in order to achieve the requirements of the Landlord and Local Authority.

The commissioning methodology and results are presented in this report.

2.0 Objectives

To visit site in conjunction with an audio engineer to set the noise limiter device for the in-house loudspeaker system in order to achieve the requirements of the Landlord and Local Authority.

To undertake measurements of the limiting amplified music levels within the building and at the nearest noise sensitive receptors.

3.0 Qualifications

The commissioning visit and report has been undertaken by Robin Wood of Lighthouse Acoustics who has over 25 years experience in acoustic consultancy. Qualifications include BEng (Hons) in Electroacoustics, Member of the Institute of Acoustics (MIOA), Member of the Association of Noise Consultants (ANC) and Member of the ANC Pre-Completion Testing Registration Scheme.

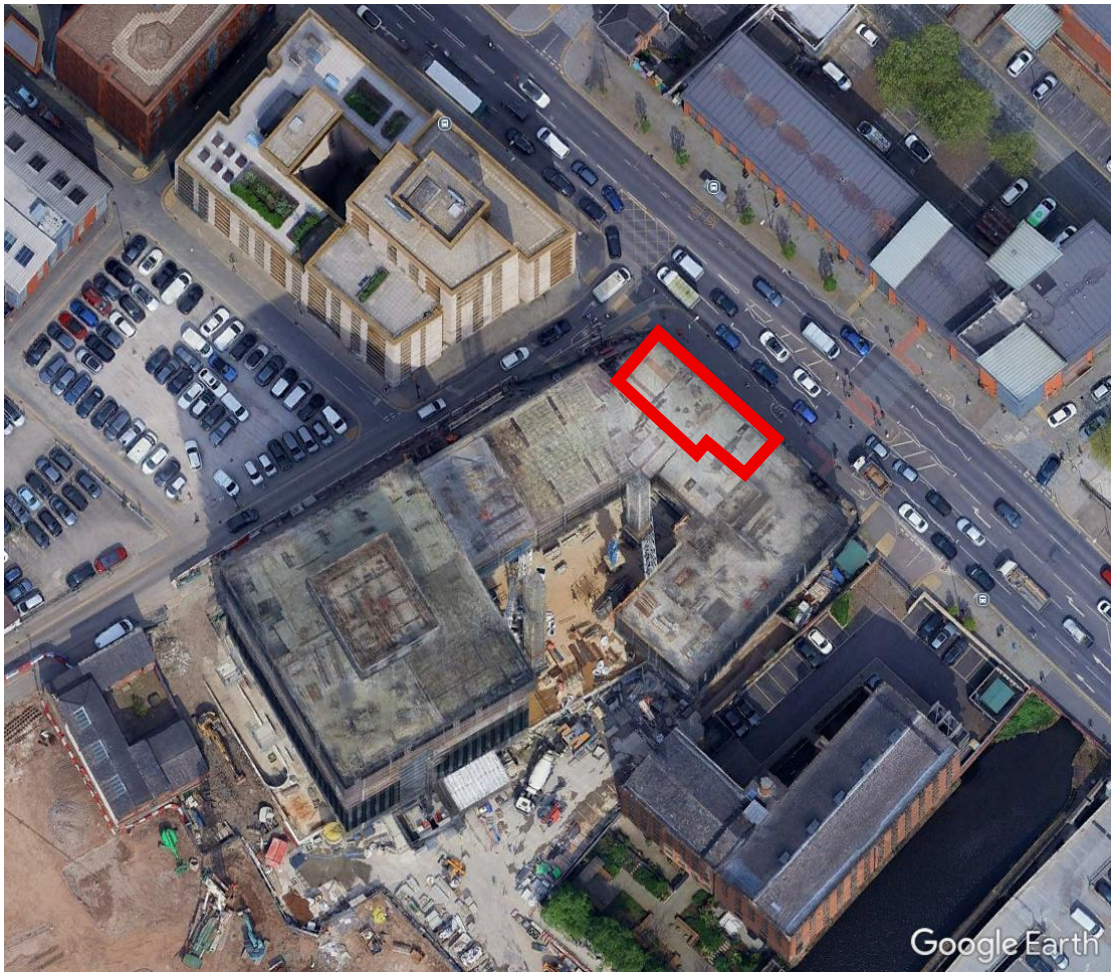
4.0 Site Description

Unit 2 is situated at ground floor level to the northern corner of One Port Street, Manchester and adjoins Unit 3 and service corridors at ground floor level with residential apartments above at 1st floor level.

One Port Street, Manchester is bound by Great Ancoats Street (A665) to the north east, residential apartments to the south east (Avro), residential apartments (The Joinery) and commercial premises (Sam's Yard) to the south west and Port Street to the north west. Residential apartments are also situated to the north east of the site opposite Great Ancoats Street (MM2) and to the north west of the site opposite Port Street (The Astley).

The nearest affected noise sensitive receptors are understood to be the residential apartments of the development itself at 1st floor and the residential apartments situated to the north east of the site opposite Great Ancoats Street (MM2) and to the north west of the site opposite Port Street (The Astley).

The site plan below indicates the extent of the site, the proposed plant location and the surrounding environment.



Site plan indicating the extent of the site and the surrounding environment

5.0 Project Requirements

Following the issue of our correspondence dated 5 August 2026, a commissioning visit is required to set the noise limiter device for the in-house loudspeaker system in order to achieve the operational noise limits agreed with the Landlord which are based on the existing shell constructions and the requirements of both the Landlord and Local Authority as detailed below.

5.1 Landlord Requirements

The Port Street Retail Unit Shell Specification for Unit 2 dated 19 January 2026 states the following in Section 4 Acoustics:

"4.1 General

Noise generated in a retail unit or a retail unit plant space must not result in noise levels which may cause a statutory noise nuisance.

4.2 Design and operational Requirements

In accordance with the Planning Approval (MCC Planning Ref: 132489/FO/2021) the Tenant must ensure that the fit-out design and occupation of the unit complies with the relevant Conditions. The Tenant will need to submit the relevant information to the Landlord and the Local Authority for approval. The reports referenced in the Planning Conditions are available upon request.

The relevant planning Conditions are:

Condition 17 – Acoustic insulation for commercial units"

5.2 Local Authority Requirements

Condition 17 of MCC Planning Application number 132489/FO/2021 states the following:

"17) Notwithstanding the recommendation within Port Street Manchester Environmental Noise Study December 2021 Report Reference: PR0665-REP01A-MPF by Fisher Acoustics , stamped as received on 13-12-21 before the operation of each ground floor commercial unit commences a scheme for acoustically insulating each unit to ensure that there is no unacceptable level of noise transfer from these units to the residential accommodation above or any unacceptable noise break out shall be submitted to and approved in writing by the City Council as local planning authority.

Where entertainment noise is proposed the LAeq (entertainment noise) shall be controlled to 10dB below the LA90 (without entertainment noise) in each octave band at the facade of the nearest noise sensitive location, and internal noise levels at structurally adjoined residential properties in the 63HZ and 125Hz octave frequency bands shall be controlled so as not to exceed (in habitable rooms) 47dB and 41dB, respectively.

The approved noise insulation scheme shall be completed before any of the approved uses commence.

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 adjacent residential accommodation arising directly from the proposed development 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."

5.3 Operational Noise Limits

The operational noise limits previously agreed with the Landlord are detailed in the table below.

Space	Limiting L_{eq} Operational Sound Pressure Level (dB) at Octave Band Centre Frequency (Hz)						
	63	**125**	**250**	**500**	**1k**	**2k**	**4k**
Unit 2	66	73	77	75	71	63	59

6.0 Commissioning Visit

6.1 Measurements

Lighthouse Acoustics visited site between 21:00 and 23:00 hours on Monday 3 August 2026 in conjunction with an audio engineer to set the noise limiter device for the in-house loudspeaker system and to undertake measurements of the limiting amplified music levels both within the building and at the nearest noise sensitive receptors.

6.2 Weather Conditions

During the commissioning visit survey period there was a gentle easterly breeze (<5m/s) and the sky was scattered cloud. There was no rainfall and road surfaces were dry. The temperature was approximately 12°C.

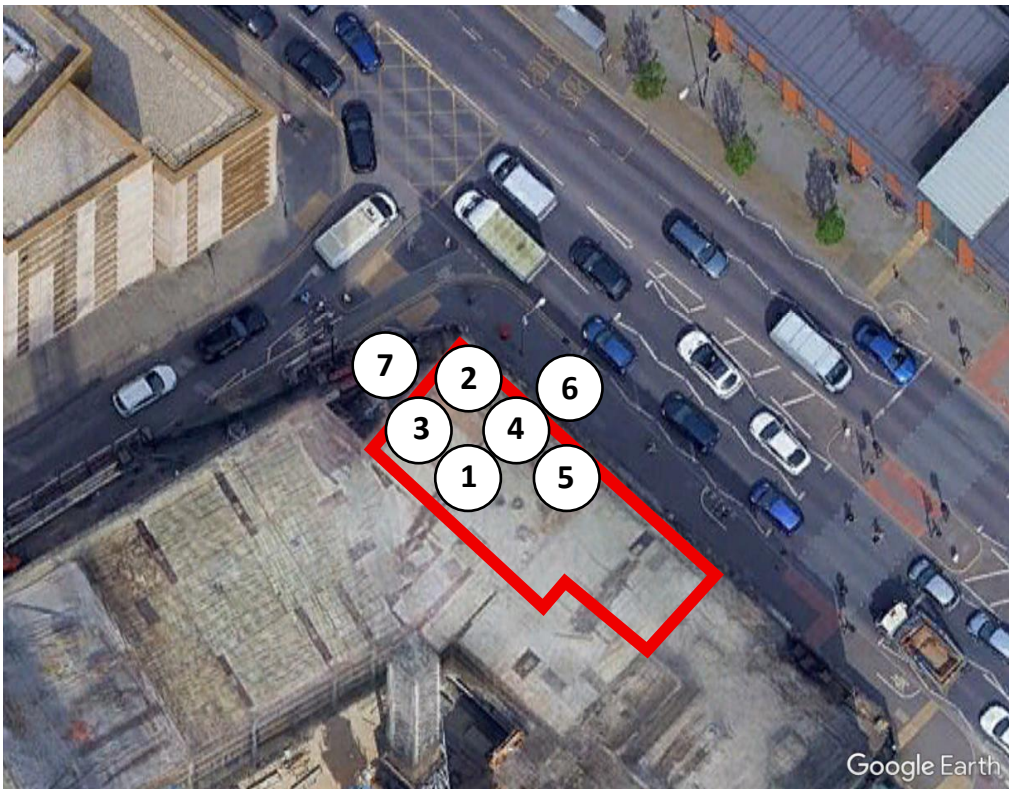
The weather conditions during the survey period were therefore considered to be suitable for undertaking measurements of sound levels.

6.3 Measurement Positions

Sound levels were measured at 5No. positions within the building and 2No. positions externally as described in the table below.

Position	Description
1	Manned measurements within Unit 2 with microphone situated in the centre of the space at 1.2m above floor level.
2	Manned measurements within the living room of the 1st floor apartment 0118 above with microphone situated in the centre of the space at 1.2m above floor level.
3	Manned measurements within the bedroom of the 1st floor apartment 0118 above with microphone situated in the centre of the space at 1.2m above floor level.
4	Manned measurements within the living room of the 1st floor apartment 0119 above with microphone situated in the centre of the space at 1.2m above floor level.
5	Manned measurements within the bedroom of the 1st floor apartment 0119 above with microphone situated in the centre of the space at 1.2m above floor level.
6	Manned measurements on the pavement at 1m from the main entrance door on Great Ancoats Street (A665) with microphone at 1.2m above ground level.
7	Manned measurements on the pavement at 1m from the emergency exit door on Port Street with microphone at 1.2m above ground level.

The measurement positions are shown on the site plan below.



Site plan showing measurement positions

6.4 Equipment

The following equipment was used to undertake the sound level measurements.

Equipment	Manufacturer	Model	Serial No.	Calibration Date
Class 1 Sound Level Meter	Bruel & Kjaer	2250	2626230	01/11/2024
Preamplifier	Bruel & Kjaer	ZC-0032	21309	01/11/2024
Microphone	Bruel & Kjaer	4189	2621208	04/11/2024
Class 1 Sound Calibrator	Casella	120/1	3864878	05/11/2025

Field calibration checks were performed on the sound level meter prior to and on completion of the survey and were found to be within acceptable tolerance limits.

6.5 Sound System

The in-house loudspeaker system comprises the following items of equipment.

1 x miniDSP Flex Audio Processor
2 x MC2 Audio T4-250 Amplifiers
2 x Large Custom Speakers
2 x Medium Custom Speakers
2 x Small Custom Speakers

6.6 Methodology

Upon arrival on site the audio engineer connected a laptop to the noise limiter device (miniDSP Flex) and it was established that there was currently no limiter active on the in-house loudspeaker system.

A typical relaxed background music track was selected and it was played on repeat so as to achieve repeatability between measurements.

The volume level on the on the venue interface units were set to maximum since these are the only controls that the staff will be able to access.

Sound level measurements were then undertaken within Unit 2 at Position 1 and the amplified music level was adjusted until the operational noise limits were achieved. The settings were saved to the noise limiter device and the laptop was removed.

Subjective listening was then undertaken within the 1st floor apartments directly above Unit 2, 0118 and 0119. Amplified music levels were subjectively inaudible above the residual noise climate. Measurements were then undertaken at Position 2, 3, 4 and 5 during lulls of passing road traffic.

Subjective listening was then undertaken on the pavement at 1m from the main entrance door on Great Ancoats Street (A665) and the emergency exit door on Port Street. Amplified music levels were subjectively inaudible above the residual noise climate. Measurements were then undertaken at Positions 6 and 7 during lulls of passing road traffic.

6.7 Measurement Results

The table below presents the measured L_{eq} octave band sound pressure levels at the 7No. measurement positions.

Position	L_{eq} Sound Pressure Levels (dB) at Octave Band Centre Frequency (Hz)							dBA
	63	125	250	500	1k	2k	4k	
1	60	69	69	71	69	63	59	70
2	35	34	35	26	18	12	12	28
3	37	35	37	26	21	16	15	29
4	37	34	31	26	26	20	14	29
5	35	32	25	16	15	12	12	22
6	66	60	56	55	56	51	41	59
7	64	58	54	52	52	47	38	56

6.8 Limiting Amplified Music Levels

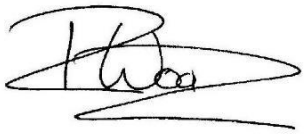
The table below presents the L_{Aeq} limiting amplified music levels for the in-house loudspeaker system in Unit 2.

Space	L_{eq} Reverberant Limiting Amplified Music Levels (dB) at Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1k	2k	4k	8k	
Unit 2	60	69	69	71	69	63	59	70	60

7.0 Conclusions

A site visit has been undertaken in conjunction with an audio engineer to set the noise limiter device for the in-house loudspeaker system in order to achieve the requirements of the Landlord and Local Authority.

Measurements have been undertaken of the limiting amplified music levels within the building and at the nearest noise sensitive receptors.



Robin Wood
LIGHTHOUSE ACOUSTICS