fisher acoustics

Flint Glass Works
64 Jersey Street
Manchester M4 6JW
[redacted]
www.fisheracoustics.co.uk

MPF/PR0660/L08

26 June 2026

Robbie Wood
Renaker Build Ltd
1st Floor
NQ Building
47 Bengal Street
Manchester
M4 6BB

Dear Robbie

PLOT F2, GREAT JACKSON STREET, MANCHESTER – INTRUSIVE NOISE

I write to confirm the results of the internal noise measurements conducted within the apartments of Plot F2 (Phase 1), Great Jackson Street, Manchester. The measurements have been conducted to determine the internal noise levels due to external noise sources and to compare the measurement results to the requirements of the planning condition relating to external noise ingress.

INTRUSIVE NOISE CRITERIA - PLANNING CONDITION 22b

Planning condition 22 of the planning permission for Plot F, Great Jackson Street, Manchester, planning reference 143143/JO/2025, dated 18 February 2026, states:

> *22) a) The development within Phase 1 hereby approved shall be carried out in accordance with:*
>
> *Environmental Noise Survey, Plot F Great Jackson Street, Manchester, Fisher Acoustics, Reference: PR0660-REP01-MPF, November 2021; and*
>
> *Technical Note: Acoustics, Ventilation and Overheating Assessment, Fisher Acoustics, Reference: T01-PR0660-MPF, 3rd November 2021.*
>
> *b) The approved noise insulation scheme shall be completed and a post-completion verification report (including validation that the work undertaken throughout the development within Phase 1 conforms to the recommendations and requirements of the acoustic report approved under part a. above and including the results of post-completion testing to confirm that the internal noise criterion have been met) shall be submitted to and approved in writing by the City Council as local planning authority before any of the dwelling units within Phase 1 are first occupied. Any instances of nonconformity with the approved acoustic report shall be detailed within the post-completion report along with any measures required to ensure compliance with internal noise criteria. Those measures shall be implemented in full before any of the dwelling units within Phase 1 are first occupied.*
>
> *Noise survey data must include measurements taken during a rush-hour period and night time to determine the appropriate sound insulation measures necessary. The following noise criteria will be required to be achieved with window and purge vent doors are closed:*

- *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 (where practically possible)*

Reason - To secure a reduction in noise from the main roads and surrounding road networks and any other potential sources of noise, in order to protect future residents from noise nuisance, pursuant to policies SP1, H1 and DM1 of the Core Strategy.

The applicable internal noise criteria for apartments are reproduced in Table 1.

Room Type	Time of day	
	07:00 to 23:00	**23:00 to 07:00**
Living room	35 dB $L_{Aeq, 16\ hours}$	-
Bedroom	-	30 dB $L_{Aeq, 8\ hours}$ Individual noise events should not normally exceed 45 dB (LAmax) more than 15 fifteen times a night

Table 1: Intrusive noise criteria

MEASUREMENT METHODOLOGY

The measurement methodology, as agreed with Manchester City Council, to demonstrate compliance with the criteria identified in Table 1 above is as follows:

1) 10% of apartments are to be tested in the daytime only. The location of the apartments under test will be selected by Fisher Acoustics on the basis of apartments that are most exposed to the surrounding road traffic noise sources and with reference to any change in the glazing specification to apartments.

2) Night-time noise levels within bedrooms will be interpolated from the daytime noise levels, based on daytime and night-time external noise measurements.

3) Install sound level meters in a living room and bedroom of one apartment between the hours of approximately 4.30pm and 7.30 pm (i.e. at a time when construction noise at Plot F2 has ceased but road traffic levels can be assumed to be typical).

4) Measure the noise level in the rooms for approximately 5 minutes without MVHR running (as the planning condition relates to external noise only). If the average (LAeq) noise level in the room has not settled after 5 minutes, continue the measurement until a consistent (LAeq) noise level has been established (up to approx. 10 minutes if required).

5) Measure the reverberation time in the rooms to allow the measured noise levels to be corrected to allow for the reduction in internal noise level that will occur upon full furnishing of the rooms.

6) Analyse the data to determine the daytime noise level in the rooms. With reference to the results of external noise survey measurements, determine the expected night-time internal noise levels within bedrooms based on the change in external noise levels between the daytime and night time.

7) Repeat the above measurements and analysis in a further fifty apartments.

8) Issue a letter report that confirms the results of the above measurements relating to external noise ingress.

The measurements were conducted by Fisher Acoustics Ltd between the following times:

- 1710 hours and 1945 hours on Wednesday 18 February 2026
- 1700 hours and 1925 hours on Monday 23 February 2026
- 1650 hours and 1925 hours on Wednesday 25 February 2026
- 1650 hours and 1935 hours on Monday 2 March 2026
- 1650 hours and 1920 hours on Wednesday 29 April 2026
- 1530 hours and 1815 hours on Wednesday 13 May 2026

There was only occasional construction activity within the building during the internal measurements. As far as possible, measurements avoided this construction noise. Traffic flows on the roads adjacent to the site were considered to be typical for the duration of the internal noise measurements.

The measurements were undertaken with the windows closed. The tested rooms were unfurnished.

The measurements were conducted in general accordance with 'ANC Guidelines -Noise Measurements in Buildings, Part 2: Noise from External Sources (e.g. traffic noise) within Buildings'.

The measurements were conducted in rooms on various levels of the building with a bias to measuring apartments on the closest elevations of the building to The Mancunian Way and Great Jackson Street, as these are the most dominant noise sources in the area. Level 2 is the lowest level of the building that includes apartments.

MEASUREMENT TOLERANCE

As described in the ANC Guidelines, BS EN 61672-1: 2013 'Electroacoustics. Sound level meters – Specifications' gives the tolerance limits that are applicable to noise level measurements carried out using Class 1 sound level meters. These tolerance limits are given in 1/3 octave bands (ie across the sound spectrum), from which it is possible to determine the influence of the tolerance limits on an overall dB(A) measured noise level.

Using the 1/3 octave band data, the overall measurement tolerance on the measured internal noise levels is +/- 1.2 dB(A). It follows that a measured noise level within 1.2dB(A) of the applicable criterion could be compliant with the criterion.

MEASURED INTERNAL NOISE LEVELS

The reverberation times of the rooms were greater than will be the case when the rooms are fully furnished. Therefore, the measured noise levels have been corrected to allow for the expected reduction in reverberation time following the full furnishing of the rooms.

The measured reverberation times have been corrected to 0.5 seconds for living rooms and 0.45 seconds for bedrooms. In addition, a correction must also be applied to the measured 5-minute daytime internal noise levels in order to determine the expected 16-hour daytime internal noise levels within living rooms. In order to determine the correction, reference has been made to external noise survey data gathered at the same time as the internal noise measurements and to the results of a full 24-hour external noise survey.

The measured daytime noise levels within the apartments were determined principally by road traffic on the Mancunian Way, with a contribution from road traffic on Great Jackson Street.

Table 2 shows the measured, RT-corrected average ($L_{Aeq,16h}$) daytime noise levels in living rooms due to external noise.

Apartment Number	Corrected Average Daytime Noise Level, dB (LAeq,16h)
	Living Room/ Kitchen Limit = 35 dB LAeq,16h (Measurement tolerance 1.2 dB(A))
2.06	26.7
3.01	19.9
3.05	25.1
4.03	24.2
4.09	25.4
5.02	25.3
5.05	26.7
6.07	25.0
7.04	28.0
7.10	22.6
8.01	26.2
8.05	27.7
9.03	25.0
10.04	28.2
11.06	27.9
12.07	27.9
13.05	30.2
13.10	25.9
14.04	27.6
14.07	28.2
15.04	26.2
15.07	29.5
16.03	24.4
17.04	29.7
17.08	28.7
18.07	27.6
19.04	27.6
19.04	28.3
19.07	29.9
20.01	21.9
20.05	28.5
21.07	30.8
22.03	26.1
23.06	28.1
24.02	25.2
24.04	28.8
25.05	28.7
26.05	29.8
26.12	26.1
27.02	26.7
27.04	28.9
28.06	28.2
29.04	27.7
29.04	27.2
30.05	27.5
30.10	25.4
32.04	29.8

Apartment Number	Corrected Average Daytime Noise Level, dB (LAeq,16h)
	Living Room/ Kitchen Limit = 35 dB LAeq,16h (Measurement tolerance 1.2 dB(A))
34.10	26.3
36.05	33.2
38.06	28.7
40.05	29.0

Table 2: Measured, RT-corrected average daytime noise levels in living rooms – external road traffic noise ingress only

It can be seen that compliance with the daytime internal noise criterion for living rooms has been achieved in all of the rooms under test due solely to external noise sources.

A correction must be applied to the measured daytime noise levels in order to determine the expected night time internal noise levels within bedrooms. In order to determine the correction, reference has been made to external noise survey data gathered at the same time as the internal noise measurements in addition to previously measured night time noise survey data.

Table 3 shows the interpolated, RT-corrected average ($L_{Aeq,8h}$) night time noise levels in bedrooms due to external noise.

Apartment Number/ Room	Corrected Average Night time Noise Level, dB (LAeq,8h)
	Bedroom Limit = 30 dB LAeq,8h (Measurement tolerance 1.2 dB(A))
2.06, Bedroom	25.0
3.01, Bedroom	19.0
3.05, Bedroom 1	20.5
4.03, Bedroom	23.2
4.09, Bedroom 1	24.1
5.02, Bedroom 1	22.9
5.05, Bedroom 1	25.2
6.07, Bedroom 1	25.8
7.04, Bedroom 1	22.9
7.10, Bedroom 1	20.2
8.01, Bedroom 1	20.1
8.05, Bedroom 1	21.3
9.03, Bedroom	25.3
10.04, Bedroom 1	24.1
11.06, Bedroom	28.7
12.07, Bedroom 1	24.9
13.05, Bedroom 1	26.7
13.10, Bedroom 1	20.5
14.04, Bedroom 1	21.6
14.07, Bedroom 1	24.5
15.04, Bedroom	22.9
15.07, Bedroom	26.5
16.03, Bedroom 1	22.8
17.04, Bedroom 1	22.3
17.08, Bedroom	27.4
18.07, Bedroom 1	26.1
19.04, Bedroom 1	22.7
19.04, Bedroom 1	22.5

Apartment Number/ Room	Corrected Average Night time Noise Level, dB (LAeq,8h)
	Bedroom Limit = 30 dB LAeq,8h (Measurement tolerance 1.2 dB(A))
19.07, Bedroom 1	25.2
20.01, Bedroom 1	18.4
20.05, Bedroom 2	25.8
21.07, Bedroom 1	23.6
22.03, Bedroom	25.0
23.06, Bedroom 2	27.2
24.02, Bedroom 1	22.7
24.04, Bedroom 1	23.7
25.05, Bedroom	25.6
26.05, Bedroom 1	27.4
26.12, Bedroom	22.5
27.02, Bedroom	24.5
27.04, Bedroom 1	25.7
28.06, Bedroom	25.3
29.04, Bedroom	25.3
29.04, Bedroom 1	22.7
30.05, Bedroom	24.8
30.10, Bedroom	24.9
32.04, Bedroom 1	27.3
34.10, Bedroom 1	25.2
36.05, Bedroom 1	27.1
38.06, Bedroom 2	24.8
40.05, Bedroom 1	20.6

Table 3: Measured, RT-corrected average night time noise levels in bedrooms – external road traffic noise ingress only

It can be seen that compliance with the night time internal noise criterion for bedrooms has been achieved in all of the rooms under test due solely to external noise sources.

Table 4 shows the measured maximum (L_{Amax}) noise levels in bedrooms during the daytime.

Apartment Number/ Room	Measured Maximum Daytime Noise Level, dB (L_{Amax}) (Limit = 45 dB L_{Amax})
2.06, Bedroom	39.7
3.01, Bedroom	30.0
3.05, Bedroom 1	33.9
4.03, Bedroom	29.0
4.09, Bedroom 1	38.1
5.02, Bedroom 1	32.7
5.05, Bedroom 1	39.7
6.07, Bedroom 1	34.4
7.04, Bedroom 1	31.0
7.10, Bedroom 1	31.0
8.01, Bedroom 1	27.7
8.05, Bedroom 1	29.0
9.03, Bedroom	40.0
10.04, Bedroom 1	43.2
11.06, Bedroom	32.9
12.07, Bedroom 1	32.9
13.05, Bedroom 1	40.8
13.10, Bedroom 1	31.0
14.04, Bedroom 1	39.7
14.07, Bedroom 1	32.3
15.04, Bedroom	31.5
15.07, Bedroom	36.5
16.03, Bedroom 1	30.0
17.04, Bedroom 1	33.4
17.08, Bedroom	34.7
18.07, Bedroom 1	35.5
19.04, Bedroom 1	40.6
19.04, Bedroom 1	34.7
19.07, Bedroom 1	32.9
20.01, Bedroom 1	26.2
20.05, Bedroom 2	34.3
21.07, Bedroom 1	33.5
22.03, Bedroom	32.3
23.06, Bedroom 2	39.0
24.02, Bedroom 1	30.3
24.04, Bedroom 1	35.2
25.05, Bedroom	36.3
26.05, Bedroom 1	35.4
26.12, Bedroom	31.8
27.02, Bedroom	43.9
27.04, Bedroom 1	35.6
28.06, Bedroom	33.0
29.04, Bedroom	37.6
29.04, Bedroom 1	35.6
30.05, Bedroom	41.1
30.10, Bedroom	39.6
32.04, Bedroom 1	36.9

Apartment Number/ Room	Measured Maximum Daytime Noise Level, dB (L_{Amax}) (Limit = 45 dB L_{Amax})
34.10, Bedroom 1	33.9
36.05, Bedroom 1	33.9
38.06, Bedroom 2	38.3
40.05, Bedroom 1	35.5

Table 4: Measured, RT-corrected average ($L_{Amax,5mins}$) noise levels in bedrooms

During the daytime measurements within bedrooms there were no excesses over the night time internal noise criterion of 45 dB L_{Amax}. As road traffic during the measurements was considered typical of normal traffic volumes and vehicle types, it is expected that compliance with the night time maximum internal noise criterion would be achieved in the tested bedrooms due to typical external noise events.

CONCLUSION

Compliance with the daytime average internal noise criterion of 35 dB $L_{Aeq,16h}$ due to road traffic noise ingress has been achieved in all of the tested living rooms.

Compliance with the night time average internal noise criterion of 30 dB $L_{Aeq,8h}$ due to road traffic noise ingress has been achieved in all of the tested bedrooms.

During the daytime measurements within bedrooms, there were no excesses over the night time internal noise criterion of 45 dB L_{Amax}. It is therefore expected that compliance with the night time maximum internal noise criterion would be achieved in the tested bedrooms due to typical external night time noise events.

The achieved noise levels are considered to be compliant with the requirements of condition 22.

Yours sincerely

[redacted]

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