

MPF/PR0657/L01B

14 March 2023

Lauren Neary
Avison Young
Norfolk House
7 Norfolk Street
Manchester
M2 1DW

fisher acoustics

Flint Glass Works
64 Jersey Street
Manchester M4 6JW

0161 605 0905 📞
info@fisheracoustics.co.uk 📧
www.fisheracoustics.co.uk 🌐

Dear Lauren

PREMIER HOUSE, RENAISSANCE, MANCHESTER

We write in relation to planning condition 22a of the planning approval for Premier House, Manchester.

INTRODUCTION

The planning approval for Premier House, Manchester includes a condition relating to an assessment of potential noise transfer from the proposed ground floor units to the offices above and noise break-out from the ground floor units to nearby residential properties

Fisher Acoustics Ltd has been commissioned by Deansgate SOF Alliance LeaseCo Limited to advise on compliance with the requirements of the planning approval for the Development and to advise on acceptable activity noise levels within the proposed ground floor units.

PLANNING CONDITION

Planning condition 22a of the planning approval for Premier House, Blackfriars Street, Manchester, M3 2EQ (planning reference number 134640/FO/2022) states:

22a) Before the development commences a scheme for acoustically insulating:

- (a) the office accommodation; and*
- (b) each ground floor unit*

against (a) any noise transfer from the ground floor units to the offices above (b) or noise break out from the ground floor units 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 each of the approved uses commence and shall remain in situ for as long as the unit is in use (and any subsequent permitted changes of use under Class E).

Prior to occupation of (a) and any unit (b), 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.

Reason - To secure a reduction in noise in order to protect future office occupiers and adjacent residents from noise nuisance, pursuant to policies SP1 and DM1 of the Core Strategy and saved UDP Policy DC26.

PROPOSED GROUND FLOOR UNITS

Figure 1 shows the proposed layout of the ground floor commercial units of Premier House.

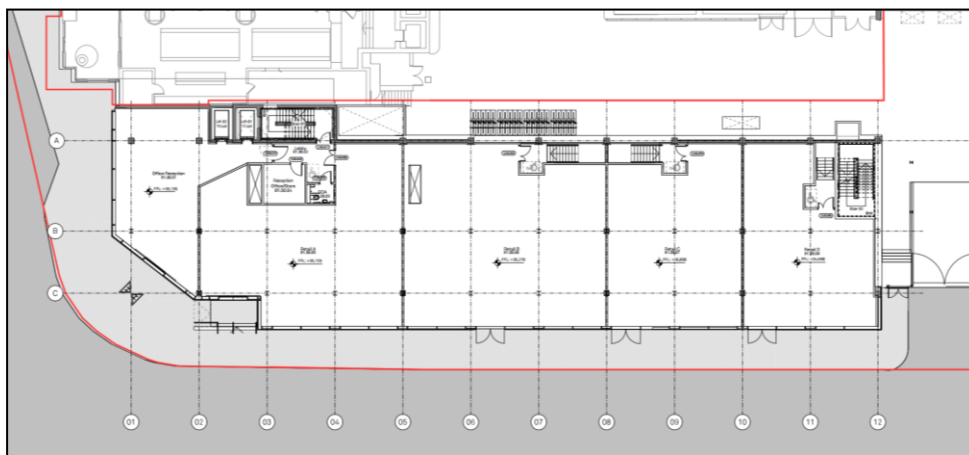


Figure 1: Proposed ground floor units

Offices are to be located directly above the commercial units. The separating floor construction is to be a composite concrete slab of thickness 150 mm.

COMMERCIAL UNITS TO OFFICE - AIRBORNE SOUND INSULATION

The proposed 150 mm composite concrete slab is expected to provide a minimum sound level difference between the commercial units and offices above of 45 dB DnT,w. Vertical flanking sound transmission via the curtain wall to the ground floor units and offices has been specified to maintain this sound level difference.

Recommended maximum allowable noise levels in commercial units

In order to avoid disturbance of the offices above, it is recommended that the noise level in the offices due solely to noise transfer from the commercial units does not exceed NR25. Residual noise in the offices from the commercial units would then be approximately 10 dB lower than the ambient noise level in the office due to building services systems.

Given the specified sound insulation performance between the commercial units and offices, Table 1 identifies the maximum allowable noise levels in the commercial units to comply with the target noise level in the offices.

Space	Sound Pressure Level (dB) @ Octave Band Centre Frequency (Hz)						
	63	125	250	500	1k	2k	4k
Commercial Units	82	76	72	73	77	78	80

Table 1: Maximum recommended sound levels in commercial units

The noise levels identified in Table 1 would be able to accommodate a bar or restaurant with background music replay.

NOISE EGRESS FROM COMMERCIAL RETAIL UNITS

As discussed in Fisher Acoustics report 'Premier House, Manchester - Environmental Noise Study', report reference PR0657-rep01A-mpf, dated 25 June 2021, the maximum allowable noise level in the proposed commercial units is also governed by noise egress to the external environment and in particular to residential properties, as identified below:

Table 2 identifies the daytime noise levels that could be generated in each commercial unit without exceeding the noise criterion of Manchester City Council relating to daytime use, on the assumption that the outer entrance door to the commercial units is closed or that door lobbies are installed, such that during access and egress of patrons, one of the doors of the lobby is closed to prevent intermittent increases in external noise.

Location	Spatially averaged sound pressure level (dB Leq) @ Octave Band Centre Frequency (Hz)						
	63	125	250	500	1k	2k	4k
Commercial Unit	82	81	84	87	89	82	77

Table 2: Maximum allowable daytime internal noise levels within the commercial units, doors closed

Table 3 identifies the noise levels that could be generated in each commercial unit without exceeding the noise criterion of Manchester City Council relating to night time use, on the assumption that the outer entrance door to the commercial units is closed or that door lobbies are installed.

Location	Spatially averaged sound pressure level (dB Leq) @ Octave Band Centre Frequency (Hz)						
	63	125	250	500	1k	2k	4k
Commercial Unit	77	76	79	82	84	77	72

Table 3: Maximum allowable night time internal noise levels within the commercial units, doors closed

The noise levels detailed in Table 2 and Table 3 would allow typical retail outlets or a 'lively' restaurant or bar with background music replay to be accommodated.

If the external doors to the commercial units are opened without the benefit of an internal lobby, then the sound insulation of the facade will be reduced. Therefore, the maximum allowable noise levels in the units would be reduced.

Table 4 identifies the noise levels that could be generated in the commercial units without exceeding the noise criterion of Manchester City Council relating to daytime use if the entrance doors to the units are open without the benefit of a door lobby.

Location	Spatially averaged sound pressure level (dB Leq) @ Octave Band Centre Frequency (Hz)						
	63	125	250	500	1k	2k	4k
Commercial Unit	76	73	72	70	71	65	55

Table 4: Maximum allowable daytime internal noise levels within the commercial units, doors open

Table 5 identifies the noise levels that could be generated in the commercial units without exceeding the noise criterion of Manchester City Council relating to night time use if the entrance doors to the units are open without the benefit of a door lobby.

Location	Spatially averaged sound pressure level (dB Leq) @ Octave Band Centre Frequency (Hz)						
	63	125	250	500	1k	2k	4k
Commercial Unit	71	68	67	65	66	60	50

Table 5: Maximum allowable night time internal noise levels within the commercial units, doors open

The noise levels detailed in Table 4 and Table 5 would allow a typical commercial outlet or relatively quiet restaurant or bar with low-level background music replay to be accommodated.

A lively restaurant or bar with music replay may exceed the allowable internal noise levels given in Table 4 and Table 5, particularly at night time. It is therefore expected that a 'lively' restaurant, bar or similar operation whose opening hours extend beyond 11pm would need to introduce a door lobby in order to comply with the requirements of Manchester City Council.

As the tenants of the commercial units are not yet known, it cannot be advised at this time whether door lobbies would be required to comply with the external noise criterion of Manchester City Council. The provision of door lobbies must be addressed at the time that the tenant of each unit is confirmed.

Any potential tenant would also be required to determine whether an improvement in the sound insulation between their unit and the offices above would be required based on a comparison of their potential activity noise levels and the values given in Table 1 above. Such an improvement could involve the installation of a suitably-designed imperforate ceiling within the unit.

If there are any aspects of the above that you would like to discuss, please do not hesitate to contact the undersigned.

Yours sincerely



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