SANDY BROWN

Consultants in Acoustics, Noise & Vibration

17214-R01-A

17 May 2017

ETC Venues, Manchester

Activity noise egress assessment



55 Charterhouse Street, London EC1M 6HA T: +44 (0)20 7549 3500
68 Sackville Street, Manchester M1 3NJ T: +44 (0)161 771 2020
2 Walker Street, Edinburgh EH3 7LA T: +44 (0)131 235 2020 post@sandybrown.com
87 Caroline Street, Birmingham B3 1UP T: +44 (0)121 227 5020 www.sandybrown.com

Sandy Brown Associates LLP
Registered in England & Wales No. OC 307504 Registered Office. 55 Charterhouse Street, London EC1M 6HA

Version	Date	Comments	Author	Reviewer
A	17 May 17		Matthew Robinson	Helen Sheldon

Summary

Sandy Brown has been appointed by ETC Venues Ltd to provide acoustic advice in relation to the proposed ETC Venues fit-out of the eighth floor of 11 Portland Street (formerly Westminster House), Manchester.

This report provides assessment of activity noise egress in order to discharge the relevant planning condition.

Based on the proposals for the development, the assessment of amplified sound egress from amplified speech and amplified background music, in the conferencing and training facilities, indicates that amplified sound egress limits at the nearest noise sensitive premises would not be exceeded.

Contents

1 Introduction 5
2 Basis of report 5
3 Site description 5
4 Planning conditions 7
5 Activity noise egress assessment 7
6 Conclusions 8
Appendix A 9
Proposed ETC Venue layout 9

1 Introduction

Sandy Brown has been appointed by ETC Venues Ltd to provide acoustic advice in relation to the proposed ETC Venues fit-out of the eighth floor of 11 Portland Street (formerly Westminster House), Manchester.

This report provides assessment of activity noise egress in order to discharge the relevant planning condition.

2 Basis of report

This report is based on the following:

- Manchester City Council planning condition 5 (Planning Permission ref. 114788/FO/2016)
- BDP P2004573/(REP)U001 environmental noise assessment report, issued December 2014
- BDP facade construction information, issued 17 February 2017
- Bennett facade construction information, dated 10 August 2016
- Synergy Architects architectural drawings, dated 10 February 2017.

3 Site description

3.1 The site and its surrounding

The site location (11 Portland Street) in relation to its surroundings is highlighted in blue in Figure 1. The proposed layout ETC Venues fit-out of the eighth floor is provided in Appendix A.

The proposed development includes training rooms, conference areas and offices.

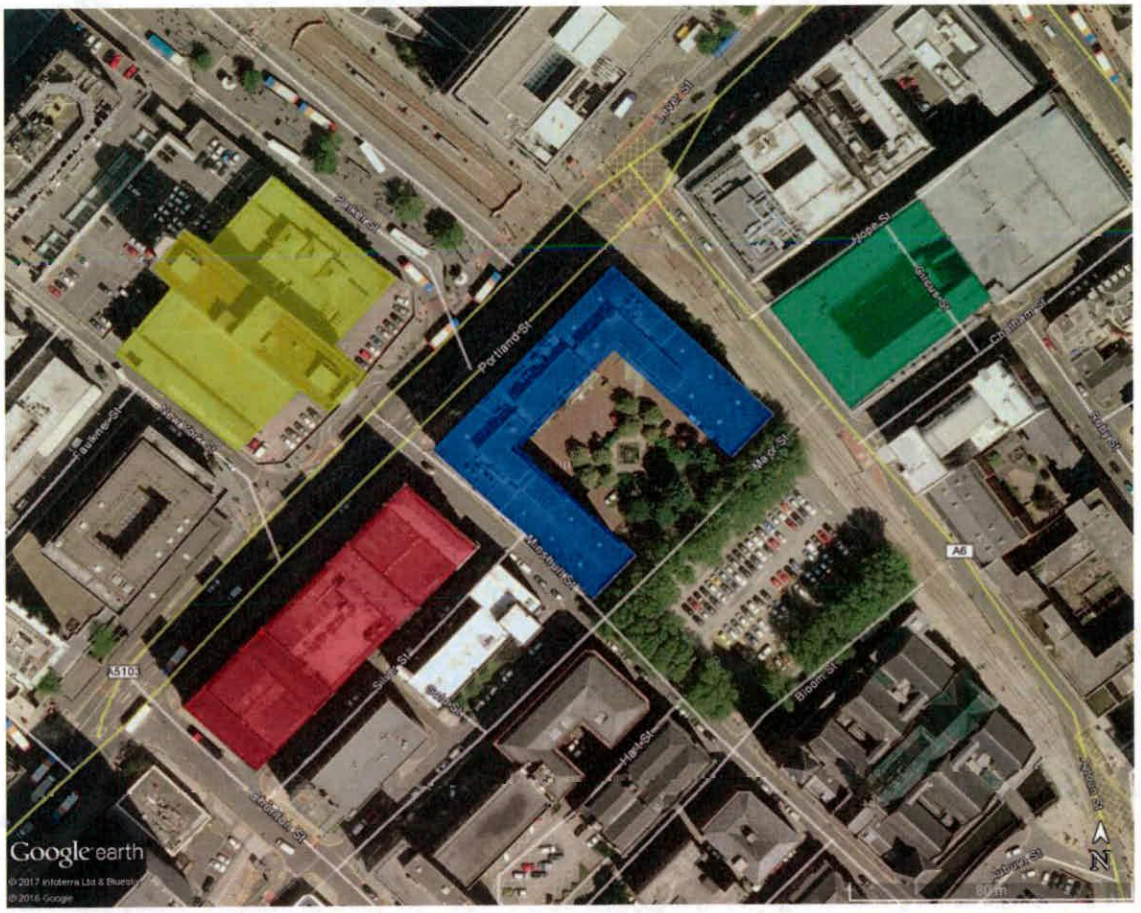

Figure 1 Site map (courtesy of Google Earth Pro)

3.2 Adjacent premises

Adjacent premises consist of commercial, hotels and residential premises. The nearest noise sensitive premises to the proposed ETC Venues fit-out are:

- The Britannia Hotel on Portland Street (highlighted in red in Figure 1) which is approximately 12 m away from proposed development
- The Grand apartments on Aytoun Street (highlighted in green in Figure 1) which are approximately 17m away from proposed development
- Mercure Hotel at Piccadilly Plaza (highlighted in yellow in Figure 1) which is approximately 28 m away from proposed development.

4 Planning conditions

Manchester City Council planning condition 5 states:

> *'The premises shall be acoustically insulated and treated to limit the break out of noise in accordance with a noise study of the premises and a scheme of acoustic treatment that has been submitted to and approved in writing by the City Council as local planning authority. The scheme shall be implemented in full before the use commences or as otherwise agreed in writing by the City Council as local planning authority.*
>
> *Where entertainment noise is proposed the L_{Aeq} (entertainment noise) shall be controlled to 10 dB below the L_{A90} (without entertainment noise) in each octave band at the facade of the nearest noise sensitive locations, and internal noise levels at structurally adjoined residential properties in the 63 Hz and 125 Hz octave frequency bands shall be controlled so as not to exceed (in habitable rooms) 47 dB and 41 dB respectively.'*

In order to meet the requirements of this condition activity noise egress from the proposed conference facilities would have to be limited so that it does not exceed the activity sound egress limits set out in section 5.1.

5 Activity noise egress assessment

5.1 Activity noise egress limits

The cumulative noise level resulting from amplified sound egress associated with the development, at 1 m from the most affected windows of the nearest noise sensitive premises, should not exceed 10 dB below the existing background (L_{A90}) sound levels.

The background sound level has been assessed using measured existing background sound levels and a typical measured background sound spectrum detailed in BDP report P2004573/(REP)U001 *Environmental noise assessment report*. On the basis of this, the amplified sound egress limits are set out in Table 1.

Table 1 Amplified sound egress limits at 1 m from the nearest noise sensitive premises

Time of day	Maximum amplified sound egress level, $L_{Aeq,5min}$ (dB) Octave-band centre frequency (Hz)						
	63	125	250	500	1000	2000	4000
Daytime (07:00-23:00)	55	55	50	48	48	39	33
Night-time (23:00-07:00)	54	54	49	47	47	38	32

5.2 Proposed arrangement

The proposed ETC venues development is located on the eighth floor of 11 Portland Street. The basis of assessment is as follows:

- The proposed spaces are to be used as conference and training facilities. Only amplified speech and amplified background music are proposed.
- Facade glazing comprising 8 mm glazing/16 mm air-space/8 mm glazing, with a sound insulation performance of R_w+C_{tr} 28 dB (R_w 32 dB).
- Minimum distance of 12 m facade of the eighth floor reception to 11 Portland Street and the nearest noise sensitive premises during the daytime (Britannia Hotel on Portland Street).

5.3 Assessment

Based on the proposed arrangement detailed above and meeting the amplified sound egress limits set out in Table 1, the internal amplified sound limits within the proposed development are set out in Table 2.

Based on a typical speech spectrum, these limits equate to an amplified speech level of L_{Aeq} 80 dB and based on a typical background music spectrum, these limits equate to a background music level of L_{Aeq} 82 dB. Therefore the proposed spaces would be suitable for amplified speech and amplified background music.

Table 2 Internal amplified sound limits

Time of day	Maximum internal amplified sound level, $L_{Aeq,5min}$ (dB) Octave-band centre frequency (Hz)						
	63	125	250	500	1000	2000	4000
Daytime (07:00-23:00)	76	81	82	84	77	77	70
Night-time (23:00-07:00)	75	80	81	83	76	76	69

6 Conclusions

An assessment of activity noise egress has been carried out in order to discharge Planning Condition 5.

Based on the proposals for the development, the assessment of amplified sound egress from amplified speech and amplified background music, in the conferencing and training facilities, indicates that amplified sound egress limits at the nearest noise sensitive premises would not be exceeded.

Appendix A

Proposed ETC Venue layout



Figure A1 Proposed ETC Venue layout (eighth floor of 11 Portland Street)