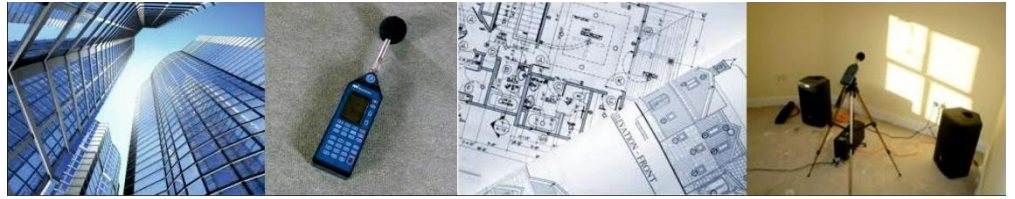


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ACOUSTIC ASSESSMENT

v.2

Client:

DORSETT HOSPITALITY UK

29th June 2022
Ref: M3032-EAL



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Project Reference	M3032-EAL
Issue No.	2
Reviewed	Eddie Oxborough MSc AMIOA
Signature	
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Date	29th June 2022

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1. SUMMARY

- 1.1 An acoustic assessment has been carried out at 56 Shepherd's Bush Green, London, to support the application for a Premises Licence.
- 1.2 With reference to pre-construction ambient noise surveys, it is proposed that the noise emitted from the premises be limited to the following levels, in order to achieve a subjective level of inaudibility at the façade of neighbouring noise sensitive properties:

Frequency	Hz	31.5	63	125	250	500	1K	2K	4K	dB(A)
Design Limit Leq, 5 mns	dB	72	56	45	36	30	26	23	21	36

- 1.3 Any final adjustments deemed necessary may be provided through the ultimate task of setting the digital limiter. This will be part of the in-house PA system which will serve all parts of the premises.
- 1.4 It is noted that the detailed design of acoustic remediation, whether architectural or engineering, will be conducted by the future tenants, informed by the targets above and their acoustic proposition. However, Section 6 outlines the measures which would be required to contain a level of c.90 dB(A) within the building. These include works to the façade of the building, and further steps to create a 'box-within-a-box' construction, set inside the current shell.
- 1.5 Appendix 1 offers a draft operational noise management plan. This is not exhaustive but should be included into the tenants working document.

2. INTRODUCTION

- 2.1 Ian Sharland Limited has been instructed to conduct an acoustic assessment to support the application for a new premises licence at 56 Shepherd's Bush Green, Shepherd's Bush, London.
- 2.2 The recently completed extension to the neighbouring Dorsett Hotel features some 75 serviced apartments on the upper floors, with the ground floor (and basement areas) designated for commercial use (see Figures 1 and 2).
- 2.3 The current application seeks permission for the following range and hours of activities within the premises:

Licensable Activities and Hours

- *Films: 07:00 to 01:00 hours, Mondays to Sundays*
 - *Live Music: 07:00 to 01:00 hours, Mondays to Sundays*
 - *Recorded Music: 07:00 to 01:00 hours, Mondays to Sundays*
 - *Performances of Dance: 07:00 to 01:00 hours, Mondays to Sundays*
 - *Anything Similar To Live Music, Recorded Music Or Dance: 07:00 to 01:00 hours, Mondays to Sundays*
 - *Late Night Refreshment 23:00 to 01:00 hours, Mondays to Sundays*
 - *Sale of alcohol: 07:00 to 01:00 hours, Mondays to Sundays*
 - *Opening hours: unrestricted*
- 2.4 This report will discuss an objective target for achieving inaudibility at neighbouring noise-sensitive properties, and then set out the means in principle by which such targets will be met.

3. ASSESSMENT OF PRE-EXISTING AMBIENT CONDITIONS

- 3.1 Reference here is made to the formal assessment of environmental noise conducted in February 2015 by Sharps Redmore Acoustics.
- 3.2 Their report 'Environmental Noise Assessment', dated February 2015, describes the findings of an environmental noise survey conducted in May 2014 and December 2014, and the conclusions derived from the results. The report is appended here for reference.
- 3.3 In brief, the survey concluded the following typical environmental noise levels:

Location	Measured Noise Levels dB(A)				
	Day time 0700 - 2300		Night time 2300 - 0700		
	L _{Aeq, t}	Typ. Min L _{A90}	L _{Aeq, t}	Typ. L _{Amax, f}	Typ. Min L _{A90}
Shepherd's Bush Green Elevation	66 - 82	58	61 - 86	72 - 100	46
Pennard Road, at end of Rockwood Place	52 - 57	48	51 - 58	63 - 80	46

4. DESIGN CRITERIA FOR LIMITING NOISE EMISSIONS

- 4.1 From the measured noise levels reported above, it is recommended that overall noise levels are limited to the following values:

Location	Maximum Allowable Façade Noise Level at Noise Sensitive Neighbours, $L_{Aeq, 5 \text{ mins}}$ dB(A)	
	Day time 0700 - 2300	Night time 2300 - 0700
Shepherd's Bush Green Elevation	48	36
Pennard Road, at end of Rockwood Place	38	36

- 4.2 The original assessment did not provide details on the frequency spectrum of the pre-existing noise climate. In the absence of this information, it is recommended that frequency noise limits are applied from a Noise Rating curve which is equivalent to the overall dB(A) level.
- 4.3 Given that use of the premises will pass 23.00, the following targets are recommended for all noise sensitive properties in the vicinity of the site:

Frequency	Hz	31.5	63	125	250	500	1K	2K	4K	dB(A)
Design Limit $L_{eq, 5 \text{ mns}}$	dB	72	56	45	36	30	26	23	21	36

- 4.4 Notwithstanding these numerical targets, methods of executing the finest of controls through the PA system, in order to ensure inaudibility, will be discussed below.
- 4.5 In respect of noise transmission directly into the apartments over the Entertainment Space, reasonable complaint should be avoided if residual noise levels do not exceed 25 dB(A) $L_{Aeq, 5 \text{ mins}}$, up to the hour of 01.00, with specific controls on low frequency noise (typically bass 'beat'). Also, peak noise level should not exceed 45 dB(A) L_{Amax} .

5. OUTLINE RECOMMENDATIONS

5.1 The detailed design of the acoustic remediation will be determined by the future tenants and their particular proposition for the space.

5.2 Depending on the volume and nature of the noise levels intended within the space, it is likely that some or all of the following measures will be required:

1. *Windows and doors along Rockwood Place will be blocked up, with the following typical construction detail:*

*Brick external leaf
Nom. 75mm insulated cavity
100mm concrete blockwork
Independent studwork frame (insulated)
2 x 15mm SoundBloc plasterboard*

2. *If the appearance of external glazing or glazed doors must be retained, it should be possible to substitute the brick external leaf with glazing/ door sets rated at 30 dB Rw.*

3. *Should lower levels be expected in certain areas of the demise, it may be acceptable to retain windows, constructing them as a 200mm deep secondary glazed arrangement. Openable doors would need to be redesigned as a lobbied configuration (with acoustically absorptive floor or ceiling)*

4. *There are two fire escape lobbies on the north-west and south-west corner of the building. The internal door set must be a minimum of 40 dB Rw and external door set, 45 dB Rw. The lobby should either be carpeted, or feature a Class C absorptive ceiling (perforated plasterboard or mineral fibre tile).*

5. *With regard to the AV systems, it is noted that digital noise limiters will be required, and that they may need to enforce low frequency controls beyond the overall dB(A) limit. It is also recommended that the system be designed with numerous zones, to allow for the highest noise levels in the central area, but to limit where possible levels around the perimeter.*

6. *The shell of the demise is likely to require a 'box-within-a-box' solution. Based on a Mason jack-up flooring system, this would typically comprise a 100mm floor slab supported on spring mounts, with a 50mm clear void to the structural slab (thereby raising floor levels).*

7. *Internal walls (around all four sides) would be constructed as a Metsec framework, with studs set on the floating floor slab (this would bring the wall linings into the room from the external shell, by some 100 – 150mm). The ceiling would then be carried in one of two fashions – either on Metsec joists supported off the vertical studwork frame, or (as*

preferred here) on spring hangers fixed to the slab above (min. 25mm static deflection). The void from the first-floor slab to the underside of the isolated ceiling would be a minimum of 6000mm.

8. *Walls would be lined with 2 x 15mm SoundBloc on either side, and the ceiling would remain 3 x 15mm SoundBloc with 100mm quilt over.*
 9. *It is further noted that structural columns will need to be drylined using 30mm Wallboard set onto a framework which is independent of the columns itself.*
 10. *All loudspeakers should be installed on antivibration mounts (12.5mm deflection for the bass bins, 5mm deflection for the mid-range speakers).*
 11. *The PA system must allow for the creation of individual zones across the premises, and must include a digital noise limiter which will allow for frequency specific adjustments in each zone*
- 5.3 It is noted that, in all such projects, the specification of building works and engineering noise controls, to control a known noise level, can be determined to a high level of accuracy. The most important element, however, will be the final recommendation regarding the PA system.
- 5.4 The most important target here is the inaudibility test at the existing neighbouring residential properties. Once the building is complete, the final task will be to commission the system and set the limiter to levels which meet that test.
- 5.5 Appendix A provides a draft Operational Noise management Plan which further solidifies the acoustic controls for the ongoing use of the premises.

Figure 1 - Proposed Basement Plan

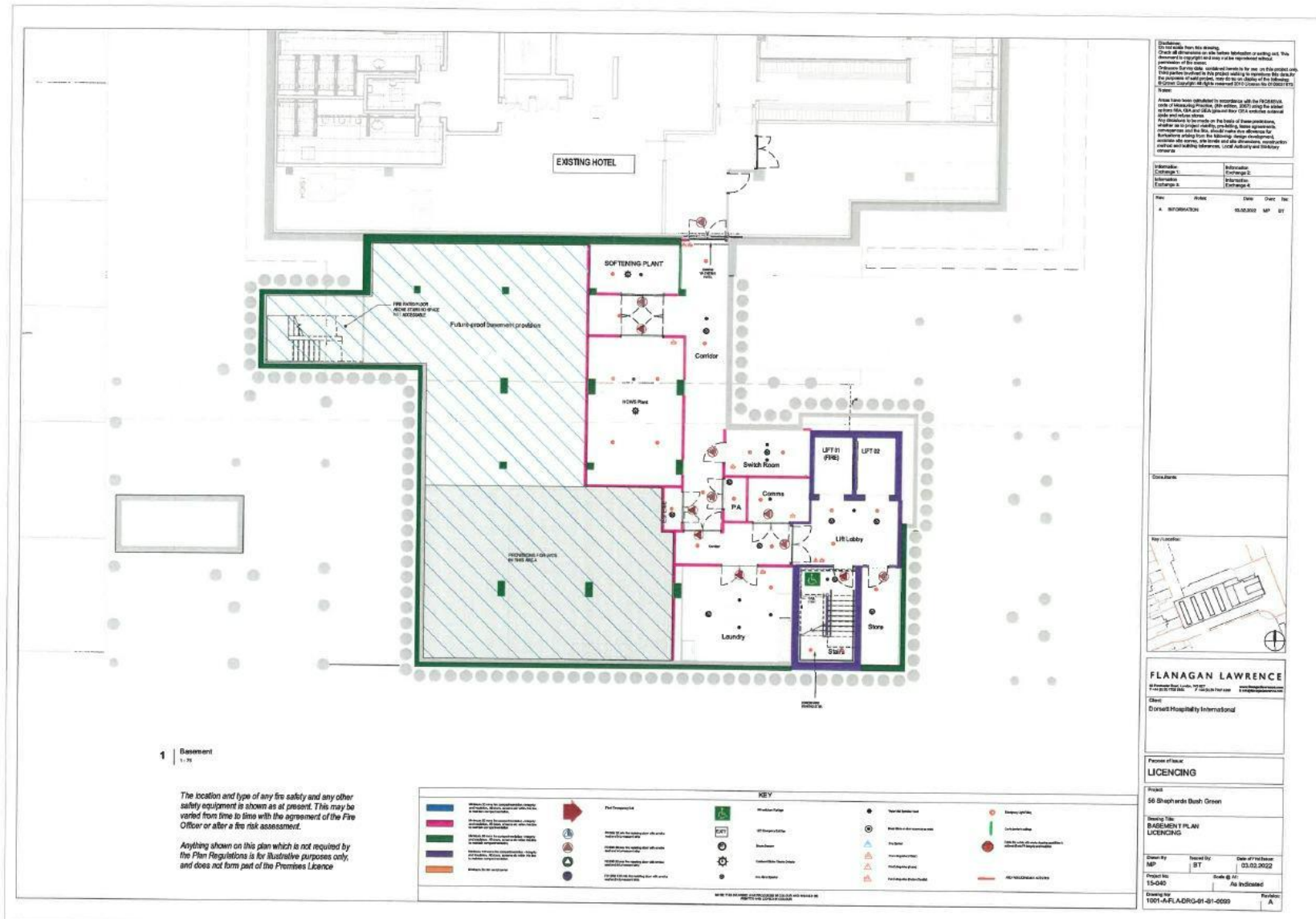
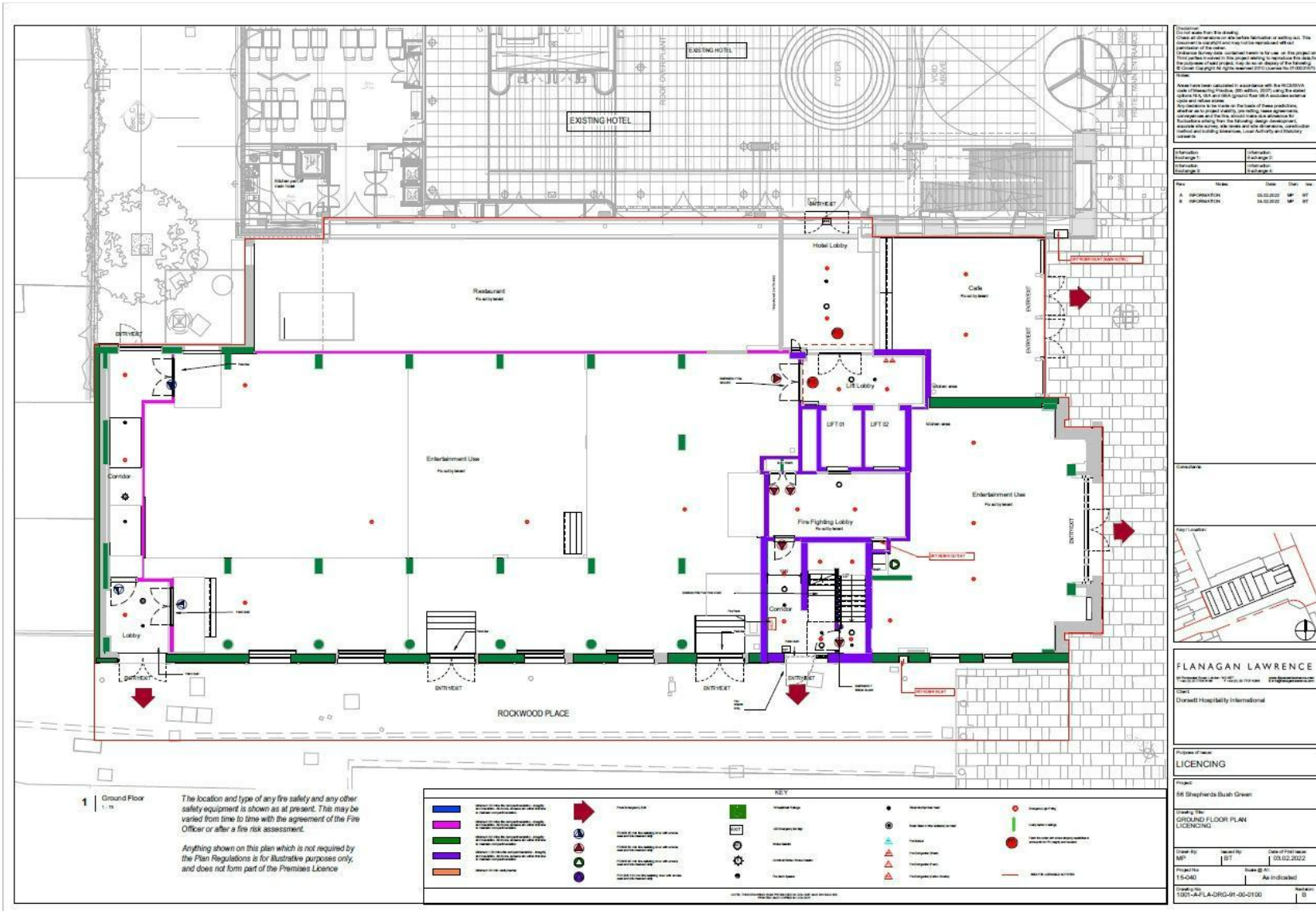


Figure 2 - Proposed Ground Floor Plan



Appendix 1 – Draft Operational Noise Management Plan

The Noise Management Plan ("the Management Plan") detailed below is to be adopted and strictly adhered to by the management of the premises ("the Management"), to control the use of the premises with particular emphasis on containing the emission of noise from the building, the travel to and from the premises, and mitigating to an acceptable level the loss of amenity that use of the premises shall cause to residents of neighbouring properties. The Management accept and recognise that full adherence to the Management Plan is critical to achieving a minimal loss of amenity to the Local Residents.

Preliminaries

1. *The proposed events building is to be constructed prior to its first use, in full accordance with the recommendations agreed between the landlord's and tenant's acoustic consultants ("the Acoustic Report").*
2. *Prior to the extended use of the premises, a full and comprehensive commissioning acoustics test shall be undertaken under the direction and supervision of the London Borough of Hammersmith & Fulham ("The Local Authority") in order to certify that the acoustic integrity of the structure and the agreed setting of noise limiting devices on the public address system ("the PA system") comply with the Management Plan and the acoustic reports.*
3. *Any works to the premises, which may have an impact on its acoustic integrity and which are not covered by the Acoustic Report shall be first approved by the Local Authority, prior to the use of the building. Upon completion of the works the acoustic integrity of the premises shall be re-tested under the management and supervision of the Local Authority to ensure that it still complies with the noise insulation levels set out in the Acoustic Report. If the acoustic integrity of the premises has been compromised, the building shall not be used for events until further works have been completed which restores the acoustic integrity of the premises to that set out in the Acoustic Report.*

Operation

4. *Use of the premises shall be directly supervised by a member of the Management staff, who shall remain on site for the periods set out in numbered paragraph 5 below.*
5. *The operating hours of events within the building (including any music) shall be limited to:*
 - a) *Films: 07:00 to 01:00 hours, Mondays to Sundays*
 - b) *Live Music: 07:00 to 01:00 hours, Mondays to Sundays*
 - c) *Recorded Music: 07:00 to 01:00 hours, Mondays to Sundays*
 - d) *Performances of Dance: 07:00 to 01:00 hours, Mondays to Sundays*
 - e) *Anything Similar To Live Music, Recorded Music Or Dance: 07:00 to 01:00 hours, Mondays to Sundays*
6. *Any use of the building for events outside these hours shall have prior written approval from the Local Authority.*

Management of the PA System

7. *The Premises shall feature a permanent PA system. All music, speeches or announcements that require amplification shall only be played through the host PA system, including visiting speakers, artists and bands.*
8. *The acoustic requirements for the PA system, including tamper proof noise limiting device ("the Noise Limiter") and the installation of loudspeakers, will be contained within the aforementioned Acoustic Report and shall be observed by the Management. Any changes thereafter shall require further specific review by either the Local Authority or a qualified Acoustician¹ and written confirmation that there shall be no adverse impact.*
9. *Prior to first use, the noise limiting device shall be commissioned alongside the Local Authority, demonstrating that the criteria stated in the aforementioned acoustic report shall be achieved.*
10. *The Noise Limiter shall be set at a level so as to ensure that any noise which radiates from the Premises shall not exceed the levels agreed with the Local Authority, which for the avoidance of doubt shall be no greater than the levels set out in the Acoustic Report. Details of the Noise Limiter settings shall be noted to allow future checking against the agreed state.*
11. *Responsibility for the PA system and its correct use shall be given to the Manager. During an event, in their absence, responsibility for the control of the PA system may be delegated to a specific member of staff, with a record maintained for future reference.*
12. *Any changes to the maximum decibel levels set by the Noise Limiters shall require the prior written approval of the Local Authority.*
13. *Loudspeakers of any type shall not be installed, erected or positioned (permanently or temporarily) externally to the Premises. There shall be no regulated entertainment provided in or for the benefit of the outside area(s).*
14. *The PA system shall be serviced and maintained strictly in accordance with the manufacturer's recommendations and/or guidelines.*

Management of the Building

15. *The sound insulation performance of the Premises is predicated on a sealed structure, excepting fire escapes and the main entrance. During each event, one or more members of staff shall be given responsibility to ensure that:*
 - (i) *All fire escape doors remain closed, other than in case of an emergency (at which point the music shall be ceased); and,*
 - (iii) *Windows to the Exterior remain closed at all times;*

¹ Full membership of the Institute of Acoustics, or company membership of the Association of Noise Consultants shall be deemed sufficient qualification.

16. *For the avoidance of doubt the Management shall have overall responsibility to ensure that at all times measures in (15) above are fully and properly observed.*
17. *Signs shall be prominently displayed at the entrance/exit of the Premises advising of the proximity of neighbouring residents, and asking for consideration from the guests.*
18. *A responsible member of staff shall carry out proactive noise assessments outside the premises at the boundary of the nearest residential property periodically during the use of the outside area and take any necessary remedial action. A written record of proactive external noise assessments and, where applicable, remedial actions taken shall be kept for a minimum of 31 days from the date of the last entry in the record and this record shall be available for inspection on demand by authorised Council officers at all times the premises are open.*

Management of Persons Outside the Building

19. *After 18.00 (tbc), one or more members of staff shall be responsible to monitor activity outside the building.*
20. *For the duration of events where there is likely to be significant levels of amplified music, the external doors shall remain closed (except for ingress and egress).*
21. *At all times, the member of staff with responsibility for the main entrance shall use all reasonable endeavours to ensure the level of noise created by people on the outside of the Premises does not reach a magnitude such that the noise generated is likely to be heard by the Local Residents. The member of Staff charged with this responsibility shall be instructed by the Management to intervene in order to control such noise.*
22. *The use of any external seating areas shall not take place between 23:00 and 08:00hrs*
23. *The Premises shall operate a dispersal policy and all staff shall be trained in its implementation. A copy of the policy and written records of this training shall be retained at the premises and made available to the Police or authorised officers of the Licensing Authority upon request.*

Neighbourhood Liaison

24. *If requested, Local Residents shall be issued with a principal contact on site (with contact telephone number), to whom they can report concerns regarding noise from ongoing activity. The contact or nominated deputy shall be available throughout.*
25. *As appropriate, a different contact may be provided for more general contact, outside opening hours.*
26. *A log of all calls shall be recorded, along with details of any actions arising. The log shall be kept for a minimum of 6 months and shall be made available to the Local Authority on request.*