Noise impact assessment
61-63 Shaftesbury Avenue, London W1D 6LQ

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On behalf of: Century Club Limited
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Executive summary

An assessment of the impact of noise from a proposed additional two hours of operating on a Thursday, Friday & Saturday at 61-63 Shaftesbury Avenue, London W1D 6LQ has been carried out. The assessment has included an inspection of the building during normal trading hours until close, an assessment of the surrounding area, continuous noise measurement on the roof terrace overnight and measurement of the noise levels in and around the premises.

No additional remedial works are required to the existing building which forms a robust and continuous envelope to contain noise from all activity on the lower floors. On the top floor is a sliding roof over the restaurant space and a smoking area to the west of the rooftop area.

The Operational procedures are already in place to manage noise from servicing, for the control of noise in the restaurant area when the roof is open, and of members using the supervised smoking area. Observations during the survey did not identify weaknesses in the current practices regarding noise management.

Century Club is discreetly located behind an access controlled plain door. Anyone wishing to enter has to use an entry system and is quickly buzzed in and walks upstairs to the reception desk on the first floor. There were no queues, it is simply not that type of premises as only those who have visited the club before will be aware of the location, and there is no walk-up trade as it is members only. It is a low impact operation located on a busy street. Members were observed leaving is small groups gradually as the evening progressed on the night of the survey.

Extending the hours of operation on Thursday to Saturday will not adversely impact on the licensing objectives or on residential amenity as music and other activity is contained by the building, operational practices to control noise are already in place, and patron departure is in small groups through a supervised exit onto an busy street which is well served by public transport including night buses, the night tube network and black cabs.

Contents

1.0 Qualifications and experience

1.1 My name is Richard Vivian. I am the founder and Managing Director of Big Sky Acoustics Ltd. Big Sky Acoustics is an independent acoustic consultancy that is engaged by local authorities, private companies, public companies and individuals to provide advice on the assessment and control of noise.

1.2 I have a Bachelor of Engineering Degree with Honours from Kingston University, I am a Member of the Institution of Engineering & Technology, the Institute of Acoustics, the Audio Engineering Society and the Institute of Licensing.

1.3 I have over twenty-five years of experience in the acoustics industry and have been involved in acoustic measurement and assessment throughout my career. My professional experience has included the assessment of noise in connection with planning, licensing and environmental protection relating to sites throughout the UK. I have given expert evidence in the courts, at planning hearings, at licensing hearings, and at public inquiries on many occasions..

2.0 Introduction

2.1 Big Sky Acoustics Ltd was instructed by Lana Tricker of LT Law, acting on behalf of Century Club Limited, to carry out an assessment of the impact of noise from an existing private members club at 61-63 Shaftesbury Avenue, London W1D 6LQ.

2.2 This report was prepared following my site visit and inspection of the building. I remained on site until 01:00hrs until all members had dispersed and the premises had closed. Continuous noise monitoring equipment was left on the roof area overnight recording levels until the following day.

2.3 Noise measurements were also taken at other locations in the area and observations of noise generating activity were made. A large amount of noise data was gathered during the survey which is simplified and summarised in this report.

2.4 A glossary of acoustical terms used in this report is provided in Appendix A.

2.5 All sound pressure levels in this report are given in dB re: 20µPa.

3.0 Site and surrounding area

3.1 The location of the site is shown in Appendix B.

3.2 There are numerous other licensed premises in the immediate area. There are many premises in the area that operate until 03:00hrs or beyond including a number of clubs and restaurants to the rear of the site on Wardour Street, Brewer Street and Old Compton Street.

3.3 It is important when assessing the impact of noise from an individual premises in an area that the concept of *additional* noise associated with any new activity at that premises is taken into account. The incremental change to noise levels caused by the normal commercial operation of a well managed private members club in an area where there is already established noise and activity could be so small as to be undetectable if it is masked by the existing noise in the area.

3.4 It is also a consideration that a bona-fide commercial premises in the area can reduce street drinkers, rough sleeping, litter and crime as the commercial operation seeks to eliminate this type of activity from the immediate area outside

the premises entrance for the benefit and safety of their own members and employees. This is achieved through good lighting, CCTV coverage, litter removal and a presence of professional personnel.

Figure 1: View from roof looking west along Shaftesbury Avenue, sliding roof on right of image

4.0 Criteria

NPPF

4.1 The National Planning Policy Framework (NPPF) was published by the Department for Communities and Local Government in 2012.

4.2 With regard to noise the NPPF states at paragraph 123 that planning policies and decisions should aim to:

- *Avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development;*
- *Mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from new development, including through the use of conditions, while recognising that many developments will create some noise.*

4.3 The comments about *adverse impacts on health and quality of life* are referenced in the NPPF to the Noise Policy Statement for England (NPSE) at footnote 27. The NPSE is intended to apply to all forms of noise, including environmental noise, neighbour noise and neighbourhood noise.

4.4 The NPSE sets out the Government's long-term vision to *'promote good health and a good quality of life through the effective management of noise within the context*

of Government policy on sustainable development' which is supported by the following aims:

- *Avoid significant adverse impacts on health and quality of life;*
- *Mitigate and minimise adverse impacts on health and quality of life.*

Perception	Examples of Outcomes	Increasing Effect Level	Action
Not noticeable	No Effect	No Observed Effect	No specific measures required
Noticeable and not intrusive	Noise can be heard, but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life	No Observed Adverse Effect	No specific measures required
Lowest Observable Adverse Effect Level (LOAEL)			
Noticeable and intrusive	Noise can be heard and causes small changes in behaviour and/ or attitude, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level (SOAEL)			
Noticeable and disruptive	The noise causes a material change in behaviour and/ or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Noticeable and very disruptive	Extension and regular changes in behaviour and/ or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/ awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non auditory	Unacceptable Adverse Effect	Prevent

Figure 2: PPG Noise Exposure Hierarchy

4.5 The NPSE defines the concept of a 'significant observed adverse effect level' (SOAEL) as *'the level above which significant adverse effects on health and quality of life occur'*. The following guidance is provided within the NPSE: *'It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our*

understanding of what may constitute a significant adverse impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available.'

4.6 The Planning Practice Guidance on Noise is written to support the NPPF with more specific planning guidance. The PPG reflects the NPSE and states at Paragraph 001 that noise needs to be considered when new developments may create additional noise. The PPG clarifies at Paragraph 002 that neither the NPSE nor the NPPF expects noise to be considered in isolation, separately from the economic, social and other environmental dimensions of proposed development.

4.7 Figure 2 is reproduced from PPG Paragraph 005 and summarises the noise exposure hierarchy, based on the likely average response.

4.8 The PPG expands upon the concept of SOAEL (together with Lowest Observable Adverse Effect Level, LOAEL and No Observed Effect Level, NOEL) as introduced in the NPSE and provides a table of noise exposure hierarchy for use in noise impact assessments in the planning system.

4.9 The PPG at Paragraph 005 considers that a noise impact with an effects level which is lower than SOAEL is acceptable but that consideration needs to be given to mitigating and minimising those effects (taking account of the economic and social benefits being derived from the activity causing the noise). When the significant observed adverse effect level boundary is crossed noise causes a material change in behaviour such as keeping windows closed for most of the time or avoiding certain activities during periods when the noise is present. If the exposure is above this level the planning process should be used to avoid this effect occurring, by use of appropriate mitigation such as by altering the design and layout. Such decisions must be made taking account of the economic and social benefit of the activity causing the noise, but it is undesirable for such exposure to be caused.

Licensing Act 2003

4.10 Westminster City Council has a duty under the Licensing Act 2003 to determine its policy with respect to the exercise of its licensing functions, and publish a statement of that policy.

4.11 The City Council fulfils its primary obligation under the Act, to promote the four licensing objectives by having policies based on each:

- The prevention of crime and disorder
- Public safety
- The prevent of public nuisance
- The protection of children from harm

4.12 It also has policies on core hours that will generally be granted, special policies for "Stress Areas" of cumulative impact and policies on various types of premises and activities.

4.13 The Policy strives to achieve a balance between allowing Westminster entertainment venues to thrive, protecting public safety and the quality of life for everyone who lives, works or visits the City.

4.14 Appendix 11 of the Statement of Licensing Policy provides guidance on noise. A copy of Appendix 11 is presented at the end of this report for reference.

Other relevant legislation

4.15 Separately to any grant of planning permission or premises licence members of the public are protected from noise that is a nuisance.

4.16 The Environmental Protection Act 1990 part III deals with statutory nuisance which includes noise. This Act allows steps to be taken to investigate any complaints which may then result in the issuing of an abatement notice and a subsequent prosecution of any breach of the notice. A statutory nuisance is a material interference that is prejudicial to health or a nuisance.

4.17 The Clean Neighbourhoods and Environment Act 2005 deals with many of the problems affecting the quality of the local environment and provides local authorities with powers to tackle poor environmental quality and anti-social behaviour in relation to litter, graffiti, waste and noise. A fixed penalty notice can be issued when noise exceeds the *permitted level* as prescribed under the Noise Act 1996 as amended by the Clean Neighbourhoods and Environment Act 2005. The permitted noise level using A-weighted decibels (the unit environmental noise is usually measured in) is 34dBA if the underlying level of noise is no more than 24dBA, or 10dBA above the underlying level of noise if this is more than 24dBA.

British Standard 8233

4.18 BS8233:2014 states that for steady external noise sources, it is desirable that the internal ambient noise level in dwellings does not exceed the guideline values of the standard as shown below.

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB $L_{Aeq,16hour}$	-
Dining	Dining room/area	40 dB $L_{Aeq,16hour}$	-
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq,16hour}$	30dB $L_{Aeq,8hour}$

Figure 3: Indoor ambient noise levels for dwellings (from BS8233 Table 4)

World Health Organisation

4.19 Guidance on maximum noise levels is given by the World Health Organisation (WHO) in a report entitled 'Guidelines for Community Noise'[1]. This report states that to avoid negative effects on sleep, the equivalent continuous internal sound pressure level during the sleeping period should not exceed 30 dB L_{Aeq}. If the noise is not continuous, sleep disturbance has an improved correlation with maximum noise levels and effects have been observed at 45 dB L_{Amax} internally. It goes on to recommend that, at night, noise levels outside dwellings should not exceed 45 dB L_{Aeq} and maximum noise levels should not exceed 60 dB L_{Amax} so that people may sleep with bedroom windows partially open.

4.20 The WHO guidelines also state that to protect the majority of people from being seriously annoyed during the daytime, the sound pressure level on balconies, terraces and outdoor living areas should not exceed 55 dB L_{Aeq} for a steady continuous noise.

[1] World Health Organisation. Guidelines for Community Noise, 2000

4.21 However, in a review of health effect based noise assessment methods undertaken for the DETR and undertaken jointly by the NPL and Southampton University[2], it is noted that: *"Perhaps the main weakness of both WHO-inspired documents is that they fail to consider the practicality of actually being able to achieve any of the stated guideline values".* According to the report transgression of the WHO guideline values does not necessarily imply significant noise impact and indeed, it may be that significant impacts do not occur until much higher degrees of noise exposure are reached. The report states: *"While in an ideal world it may be desirable for none of these effects to occur, in practice a certain amount of noise is inevitable in any modern industrialised society. Perhaps the main weakness of both WHO-inspired documents is that they fail to consider the practicality of actually being able to achieve any of the stated guideline values. It is important to make clear that ...exceedences do not necessarily imply an over-riding need for noise control, merely that the relative advantages and disadvantages of noise control action should be weighed in the balance. It is all a question of balance and mere exceedence of the WHO guidelines just starts to tip the scales."*

4.22 A noise incidence study was undertaken by the Building Research Establishment in 2000 and was published in 2002[3]. This study indicated that approximately 55% of the population in England and Wales are exposed to noise levels above 55 dB L_{Aeq} during the daytime. This study is considered to further support the findings of the DETR study and reinforce the apparent weakness of the WHO recommendations.

4.23 It is relevant to note that the WHO report has not been adopted into UK legislation or formal guidance; hence it remains a source of information reflecting a high level of health care with respect to noise, rather than a standard to be rigidly applied. The guideline values in the WHO report give the lowest threshold noise levels below which the occurrence rates of particular effects can be assumed to be negligible.

Operational objectives

4.24 The management team at The Century Club are keen to continue to promote good relationships with their commercial and residential neighbours. Therefore in addition to all statutory obligations it is a primary operational objective that noise from the normal operation of the premises does not have a detrimental impact on any neighbouring properties.

4.25 A comprehensive Noise Management Policy has been introduced at the premises. This policy will be regularly reviewed and updated. The most up to date version of this policy can be found at Appendix E.

5.0 Balancing planning and licensing noise conditions

5.1 The guidance issued under Section 182 of the Licensing Act 2003 is clear in its general principles (Para 1.16) that *"[licence conditions] should not duplicate other statutory requirements or other duties or responsibilities placed on the employer by other legislation"*. Therefore if the objective of the prevention of public nuisance is satisfactorily upheld because there already exist tests of nuisance through The Environmental Protection Act 1990; The Noise Act 1996; and The Clean

[2] Porter N D, Flindell I H and Berry B F. NPL Report CMAM 16, Health Effect Based Noise Assessment Methods: A Review and Feasibility Study, DETR, 1998

[3] DEFRA. The National Noise Incidence Study 2000/2001, 2002

Neighbourhoods and Environment Act 2005, then additional conditions on a premises licence that merely duplicates these statutory requirements should not be necessary according to Home Office guidance.

5.2 Similarly planning guidance has, for a long time, stated that additional planning conditions which duplicate the effect of other legislation should not be imposed, and current planning practice guidance is clear that conditions requiring compliance with other regulatory requirements will not meet the test of necessity and may not be relevant to planning.

5.3 The pragmatic approach to specifying relevant requirements for noise control conditions would be that more general noise criteria relating to the principle of use of the site are applied under the planning regime; these may include boundary noise conditions or plant operating level limits. More specific requirements relating to licensable activities such as hours of operation, the requirement for a sound system limiter or a noise management policy should be implemented through the licensing process.

6.0 Noise measurement procedure

6.1 To establish the noise levels at rooftop level in the area a static measurement position was set up immediately adjacent to the roof canopy. At the start of the measurement procedure the canopy was open.

6.2 The rear façade, furthest from Shaftesbury Avenue, was selected as the quieter façade and therefore any noise from the restaurant would not be masked by road traffic to the same extent as it would on the Shaftesbury Avenue side of the building.

6.3 Measurement continued until the following morning and will have included the time when the canopy closed.

6.4 Additional noise measurements were made with a hand-held measurement system at other locations in the immediate area. Analysis shows good correlation between all the attended and unattended recorded noise level data at the logging position.

6.5 Noise measurements were made in continuous samples of 1-second intervals. Measurements included the L_{Aeq}, L_{A90} and L_{Amax} indices. Simultaneous octave and third octave frequency spectra were also obtained during the survey. Measurements were taken at 1.5 m above grade level. Measurement duration was typically 5-minutes per sample. When the L_{Aeq} level quickly stabilised, shorter duration measurements were taken although no measurement was shorter than 1-minute. Throughout the course of the survey an outdoor microphone wind-shield was used.

6.6 For the purposes of this assessment all attended measurements were paused for emergency service sirens, aircraft passes and other significant short-duration noises. (The unattended logging equipment operates continuously and therefore all noise incidents are recorded on that trace).

6.7 The instrumentation used to carry out the noise measurements is detailed in Appendix C. The calibration of the measuring equipment was checked prior to and immediately following the tests and no signal variation occurred. Calibration of equipment is traceable to national standards.

6.8 The weather conditions during the survey are reported in Appendix D.

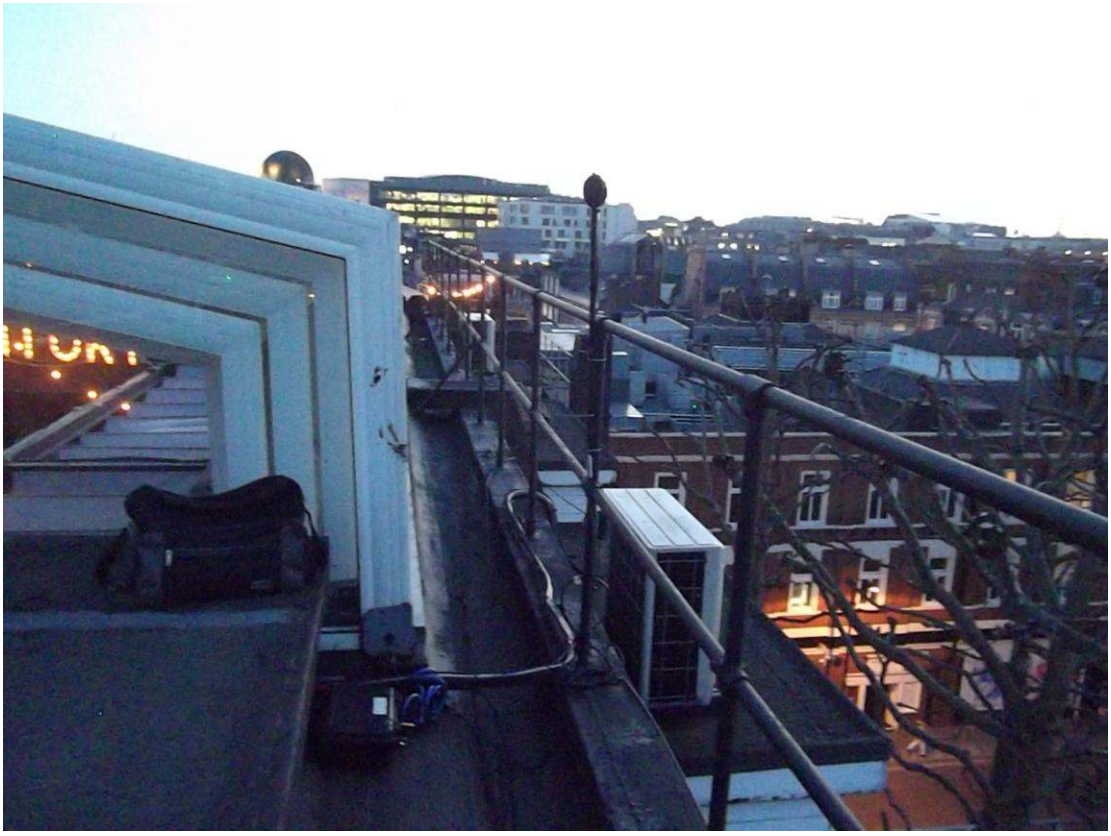


Figure 4: Noise logging position on balustrade at edge of roof canopy.

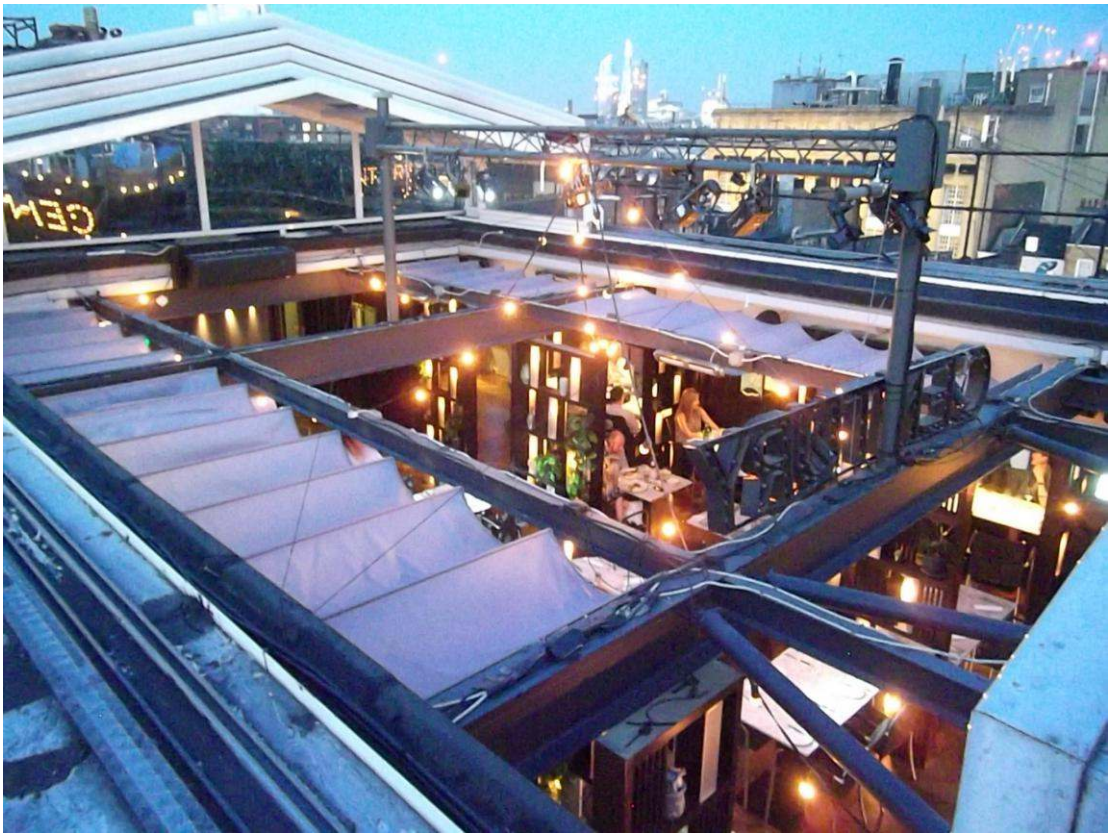


Figure 5: View into restaurant at level below roof level (i.e. entirely surrounded by walls)

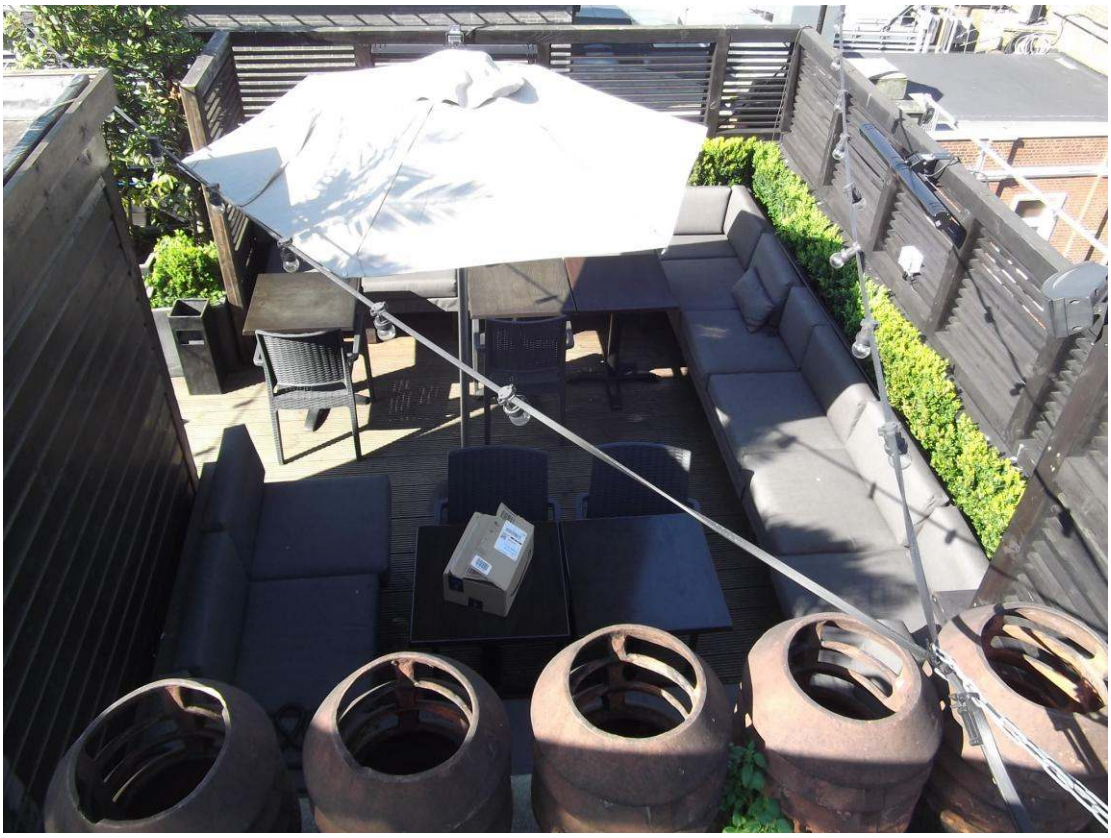


Figure 6: Smoking area at west end of roof, note screens shield area

Figure 7: Residential flats to right of image

Figure 8: View from west end of roof showing Ham Yard Hotel roof terrace (trees/shrubs and white canopy)

7.0 Noise measurement analysis

7.1 Continuously recorded noise measurement data on the roof adjacent to the sliding roof over the restaurant is displayed in graphical form in Figure 9.

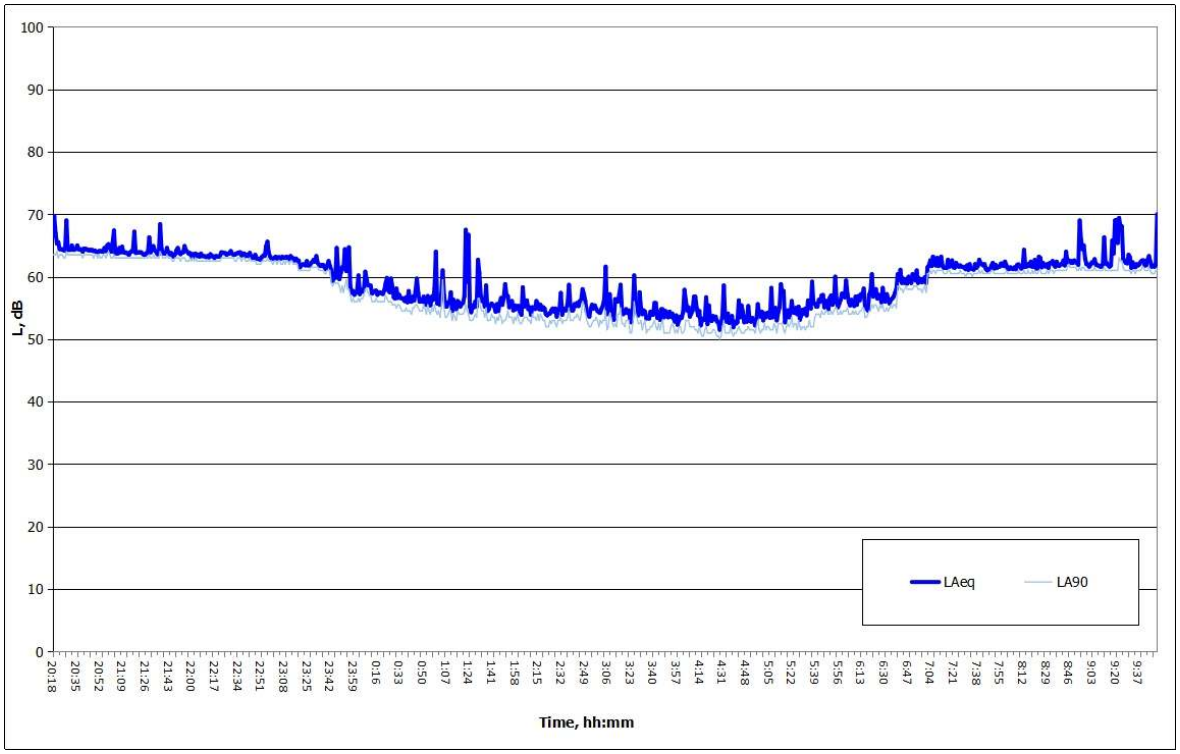


Figure 9: Continuously logged noise data on roof

Time	Location	L_{Aeq}	L_{Zeq}	L_{AFMax}	L_{AF90}
20:28	Rooftop at logging position	64	75	69	63
20:33	Rooftop mid position	65	74	71	64
20:37	Internal level in restaurant	74	78	81	71
20:44	Internal level in restaurant	76	79	82	73
9:51	Rooftop at logging position	63	73	65	62

Figure 10: Noise measurement data, all reported levels in dB

7.2 What is clear from the measurement data is that noise levels at roof level are high but that activity in the restaurant, which is submerged below the roof line, does not affect the average noise level with the roof open.

7.3 The graph in Figure 9 shows that the background noise levels drop from around midnight until shortly before 07:00hrs. This is evidence that some items of plant creating a steady state noise are switched off at these times.

7.4 In the absence of this plant noise average rooftop levels at 01:00hrs, 02:00hrs or 03:00rs are consistent and background noise levels do not fall below 51dBA throughout the survey. [In quiet residential areas away from road traffic and other activity a notable drop in levels is to be expected as noise generating activity reduces in the early hours of the morning].

7.5 Attended measurement data from the roof location correlate with logged data. Attended measurements from the restaurant, which was operating at around 50% capacity and playing music, demonstrate that it is not a noisy restaurant.

8.0 Recommendations for noise control - remedial works

8.1 The building envelope already provides a continuous barrier to contain all sound generated inside the premises and no additional works are required.

9.0 Recommendations for noise control - operational

9.1 A comprehensive Noise Management Policy is in operation at the site and is presented at Appendix E. This policy document will be regularly reviewed and updated.

10.0 Recommendations for noise control - sound system

10.1 The sound system should be periodically checked to ensure that the maximum operating level is not likely to cause a nuisance at the nearest noise sensitive property. Assessment should be carried out, wherever possible, from the nearest noise sensitive property itself at a time when ambient noise is at its lowest (but within normal operating hours of the premises).

11.0 Appendix 11 Risk Assessment

11.1 A risk assessment has been prepared to assist the Environmental Health Consultation Team make an assessment of the risk of any increase in public nuisance in the area due to the use of these premises.

11.2 The building is located in a busy area which is close to existing activity from other late night licensed premises. Road traffic noise is high at this location.

11.3 The high ambient noise levels in the area effectively mask lower level noises from the normal commercial activity of the club such as members and staff entering and leaving the building.

11.4 The members club is a high quality destination with a select membership. This is of relevance to the assessment as the perception of the club and the enjoyment of the members depends on the premises being presented in a calm and controlled manner. It is of primary importance that any activity around the club entrance does not impact negatively on the members.

11.5 Amplified music only occurs within the building. There is a sliding roof canopy but as long as the sound system is checked and limited to operate at an appropriate level with the canopy open there will be no impact on any noise sensitive property. Recommendations have been made to check the limiter operation periodically.

11.6 The club entrance is accessed by entry-phone and covered by monitored CCTV.

11.7 Signage at the front entrance requests that members respect the neighbours and be quiet as they leave.

11.8 Members requiring public transport will easily find a taxi on Shaftesbury Avenue There are numerous night bus services and the nearest tube stations are Piccadilly Circus and Leicester Square which are on the night-tube network.

11.9 Employee training includes emphasis of the importance to minimise noise from members as they arrive at and depart from the club.

11.10 Century Club Limited has established a good record of operation at this site and has demonstrated that licensable activities are carried out in such a manner so as to prevent any noise impact on local residents.

11.11 Century Club Limited is committed to continue to work in partnership with the relevant authorities and to maintain good relations with residents and members and accordingly will be receptive to any further reasonable suggestions proposed.

12.0 Conclusions

12.1 Big Sky Acoustics Ltd was instructed by Lana Tricker of LT Law, acting on behalf of Century Club Limited, to carry out an assessment of the impact of noise from an existing private members club at 61-63 Shaftesbury Avenue, London W1D 6LQ.

12.2 The premises is at busy location with significant road traffic noise. Advantageously this also means good transport links to disperse members at the end of the evening.

12.3 Noise breakout from any sound system and other activities inside the premises is controlled by the sound system signal processing (limiter) and physical structure of the building.

12.4 It is my conclusion that this is an established location for a private members club and the current operation of Century Club has demonstrated that there is

responsible management and effective control. Given this location, style of operation, existing controls, and a willingness to take on board further controls if necessary, it is my professional opinion that the application is unlikely to adversely impact upon the amenities of neighbouring properties and occupiers as the controlled activities within the building and dispersal of members from the premises would not increase average noise levels in the area.

Richard Vivian BEng(Hons) MIET MIOA MAES MIOL
Big Sky Acoustics Ltd

Appendix A - Terminology

Sound Pressure Level and the decibel (dB)
A sound wave is a small fluctuation of atmospheric pressure. The human ear responds to these variations in pressure, producing the sensation of hearing. The ear can detect a very wide range of pressure variations. In order to cope with this wide range of pressure variations, a logarithmic scale is used to convert the values into manageable numbers. Although it might seem unusual to use a logarithmic scale to measure a physical phenomenon, it has been found that human hearing also responds to sound in an approximately logarithmic fashion. The dB (decibel) is the logarithmic unit used to describe sound (or noise) levels. The usual range of sound pressure levels is from 0 dB (threshold of hearing) to 140 dB (threshold of pain).

Frequency and Hertz (Hz)
As well as the loudness of a sound, the frequency content of a sound is also very important. Frequency is a measure of the rate of fluctuation of a sound wave. The unit used is cycles per second, or hertz (Hz). Sometimes large frequency values are written as kilohertz (kHz), where 1 kHz = 1000 Hz. Young people with normal hearing can hear frequencies in the range 20 Hz to 20,000 Hz. However, the upper frequency limit gradually reduces as a person gets older.

A-weighting
The ear does not respond equally to sound at all frequencies. It is less sensitive to sound at low and very high frequencies, compared with the frequencies in between. Therefore, when measuring a sound made up of different frequencies, it is often useful to 'weight' each frequency appropriately, so that the measurement correlates better with what a person would actually hear. This is usually achieved by using an electronic filter called the 'A' weighting, which is built into sound level meters. Noise levels measured using the 'A' weighting are denoted dBA. A change of 3dBA is the minimum perceptible under normal everyday conditions, and a change of 10dBA corresponds roughly to doubling or halving the loudness of sound.

C-weighting
The C-weighting curve has a broader spectrum than the A-weighting curve and includes low frequencies (bass) so it i can be a more useful indicator of changes to bass levels in amplified music systems.

Noise Indices
When a noise level is constant and does not fluctuate over time, it can be described adequately by measuring the dB level. However, when the noise level varies with time, the measured dB level will vary as well. In this case it is therefore not possible to represent the noise level with a simple dB value. In order to describe noise where the level is continuously varying, a number of other indices are used. The indices used in this report are described below.

L_{eq} The equivalent continuous sound pressure level which is normally used to measure intermittent noise. It is defined as the equivalent steady noise level that would contain the same acoustic energy as the varying noise. Because the averaging process used is logarithmic the L_{eq} is dominated by the higher noise levels measured.

L_{Aeq} The A-weighted equivalent continuous sound pressure level. This is increasingly being used as the preferred parameter for all forms of environmental noise.

L_{Ceq} The C-weighted equivalent continuous sound pressure level includes low frequencies and is used for assessment of amplified music systems.

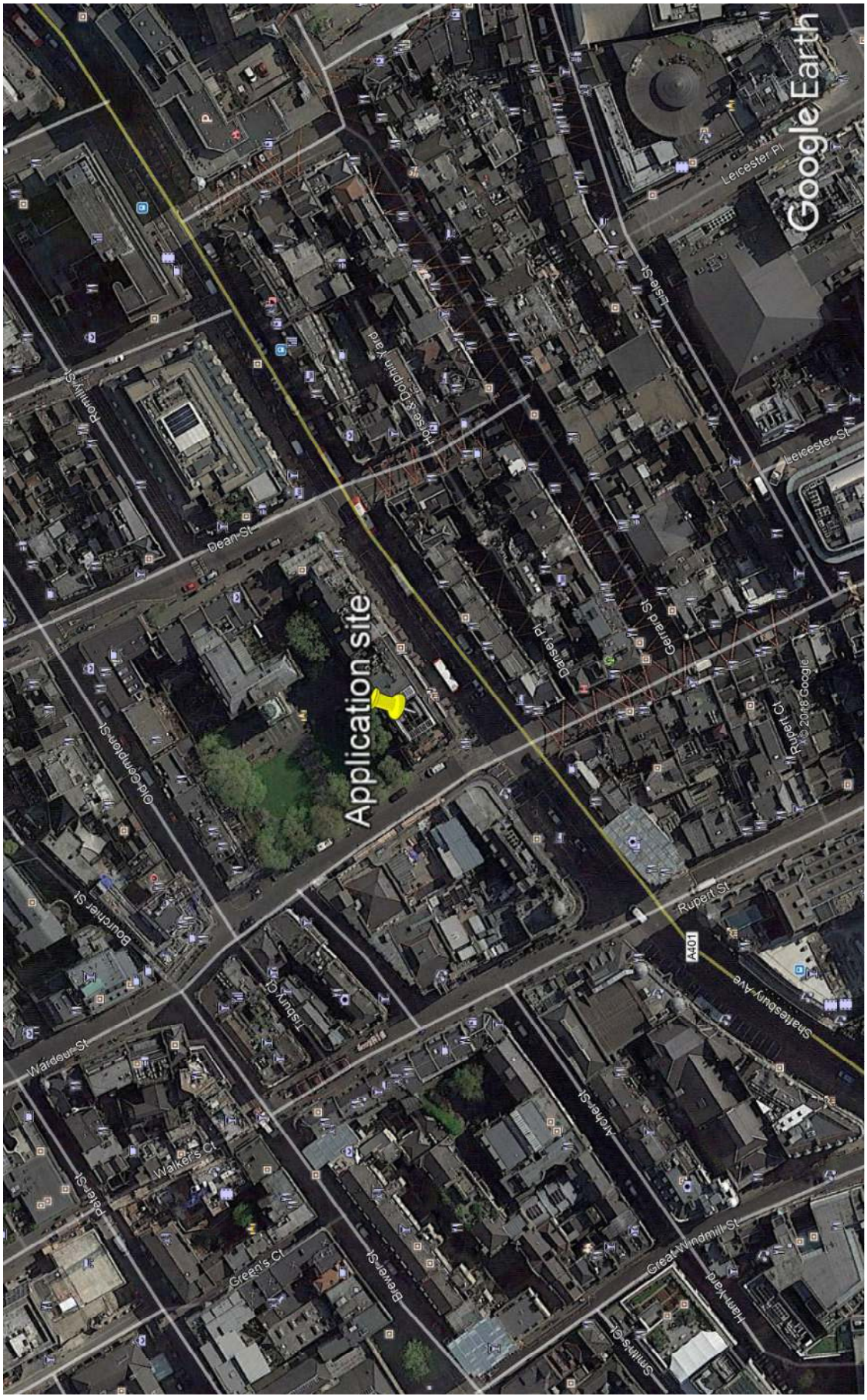
L_{Amax} is the maximum A-weighted sound pressure level during the monitoring period. If fast-weighted it is averaged over 125 ms , and if slow-weighted it is averaged over 1 second. Fast weighted measurements are therefore higher for typical time-varying sources than slow-weighted measurements.

L_{A90} is the A-weighted sound pressure level exceeded for 90% of the time period. The L_{A90} is used as a measure of background noise.

Example noise levels:

Source/Activity	Indicative noise level dBA
Threshold of pain	140
Police siren at 1m	130
Chainsaw at 1m	110
Live music	96-108
Symphony orchestra, 3m	102
Nightclub	94-104
Lawnmower	90
Heavy traffic	82
Vacuum cleaner	75
Ordinary conversation	60
Car at 40 mph at 100m	55
Rural ambient	35
Quiet bedroom	30
Watch ticking	20

Appendix B - Site location



Appendix C - Instrumentation

All attended measurements were carried out using a Cirrus type CR:171B integrating-averaging sound level meter with real-time 1:1 & 1:3 Octave band filters and audio recording conforming to the following standards: IEC 61672-1:2002 Class 1, IEC 60651:2001 Type 1 I, IEC 60804:2000 Type 1, IEC 61252:1993 Personal Sound Exposure Meters, ANSI S1.4-1983 (R2006), ANSI S1.43-1997 (R2007), ANSI S1.25:1991. 1:1 & 1:3 Octave Band Filters to IEC 61260 & ANSI S1.11-2004.

Unattended measurements were carried out using a Svan type 971 integrating-averaging sound level meter with real-time 1:1 & 1:3 Octave band filters conforming to the following standards: IEC 61672-1:2002 Class 1. 1:1 & 1:3 Octave Band Filters to IEC 61260.

The calibration of the measuring equipment was checked prior to and immediately following the tests and no signal variation occurred. Calibration of equipment is traceable to national standards. The following instrumentation was used during the survey:

Description	
Cirrus sound level meter	type CR:171B
Cirrus pre-polarized free-field microphone	type MK:224
Cirrus microphone pre-amplifier	type MV:200E
Cirrus class 1 acoustic calibrator	type CR:515
Svan sound level meter	type 971
ACO pre-polarized free-field microphone	type 7052E
Svan microphone pre-amplifier	type SV18

Appendix D - Meteorology

18-19 April 2018	Temperature	Wind speed	Precipitation
At start	22°C	0-1 ms^{-1}	None
During assessment	14°C	0-0.5 ms^{-1}	None
At finish	21°C	0 ms^{-1}	None
Additional comments: Dry, very still, warm for time of year.			

Appendix E – Noise Management Policy

We operate a considerate business. We aim to manage all noise from our premises so that we do not disturb people resting and sleeping in their homes. We therefore have a comprehensive approach to managing noise from our premises. The following points are critical to our noise management policy:

- No music or amplified sound shall be generated in the premises so as to give rise to nuisance in any residential property.
- Except for access, maintenance and safety reasons, emergency exit and service doors will not be secured open when the premises are operating.
- No empty bottles will be tipped or thrown into outside storage receptacles at the premises between 23:00 and 07:00hrs.
- Arrangements are in place to ensure that deliveries, collections and operational servicing are carried out between 07.00 and 23.00hrs except where access at other times is unavoidable and specific procedures are in place to limit disturbance.
- Refuse collections are made at the times allocated for the street. We will ensure that waste is correctly packaged and can be removed quickly and efficiently. There will be no on-street refuse storage.
- Our sound systems are fitted with a limiter which will be maintained and calibrated. The limiter operation may be checked at any time by a technical officer from Westminster City Council.
- Members are quickly and discretely buzzed in from our entrance on Shaftesbury Avenue. No queuing occurs outside our premises.
- Any glass or bottles in the entrance doorway will be cleared. Bottles and glasses do not originate from our premises as our members would not take drinks outside, but any glass will still be cleared away as we make every effort to keep the area around our building tidy and safe.
- We encourage all personnel to take pride in the area we work in. We will endeavour to keep the entrance door on Shaftesbury Avenue clean and attractive for our members and our neighbours. This means dealing with debris that has nothing to do with us, but in the interests of making this a better area we will still clear it up.
- A telephone contact number is provided on the Century Club website that goes directly to the reception desk. If there is a complaint about noise it will be logged and appropriate action taken.
- Clearly legible notices are displayed at the exist from the premises requesting members to respect the needs of local residents and to leave the premises and the area quietly.
- The entrance doors are supervised at all times.
- We will attach the utmost importance to the careful investigation and prompt resolution of any complaint made in respect of the running of the premises. Particular emphasis is placed on building and maintaining close links with local residents including hosting meetings where necessary to allow our neighbours to raise any issues and for those issues to be quickly resolved.

The Century Club, May 2018

Westminster City Council Statement of Licensing Policy 2016

Appendix 11 - Guidance on noise

1. The council regards the control of noise as an essential aspect of good neighbourliness, contributing to the sustainability of residential and commercial communities.

Noise sources

2. Applicants should consider the potential sources of noise and the hours when it may be generated. The Licensing Authority's noise criteria relate to all these sources of noise whether indoors or in the open air, including:

(a) music and human voices, both amplified and unamplified
(b) other internal activities
(c) use of open areas
(d) patrons queuing
(e) patrons and staff entering and leaving the premises and in its vicinity
(f) vehicles arriving, waiting, parking and departing
(g) deliveries and collections including refuse and collection of recyclable materials
(h) plant, machinery and associated equipment
(i) any other factors that could cause noise disturbance.

3. Many licensed activities can cause noise that is heard outside the premises or originates from an open air site and some of these risk generating noise that causes public nuisance. The risk assessment carried out for licence applications for such activities, should take account of the criteria and guidance on noise set out below which indicates circumstances in which a noise report will be necessary and what it should contain.

4. On the other hand, some licensed activities will generate noise at such low levels that they are unlikely to cause public nuisance. The list of criteria below should be used to determine whether it is likely that a full noise report will be required.

Information on noise

5. All applicants must provide a statement demonstrating how they do or do not comply with the following criteria. A noise report will not usually be required where all the following criteria are met.

(a) There have been no Noise Abatement Notices (Section 80 of the Environmental Protection Act 1990) served in relation to the premises within the two years prior to this application.
(b) There have been no noise complaints relating to the premises received by the applicant, the council or the police within the two years prior to this application.
(c) There have been no objections to the renewal of a licence in relation to the premises within the two years prior to this application.
(d) There are no noise sensitive properties above, below, adjacent, opposite in the proximity of the premises or otherwise likely to be affected.
(e) There is no air conditioning, or other plant and associated equipment.
(f) There is no loudspeaker system.
(g) There are no activities involving performances of music or other sounds, whether live or recorded. or any other "regulated entertainment".
(h) No door staff are required as a condition of an existing licence.
(i) Deliveries, collections, servicing; use of vehicles, do not take place between 19.00 and 07.00 hours.

Noise report

6. When the Licensing Authority receives a statement from the applicant demonstrating how they do or do not meet the criteria above, it will determine whether a noise report will be required, which aspects of it will be required, what it should cover, and how it should be prepared.

7. A noise report may contain some or all of the following:

(a) An environmental noise impact assessment (required for all noise reports).
(b) An acoustic report for premises where there is plant and equipment (e.g. ventilation, air conditioning, lifts, hoists etc).
(c) A sound insulation and sound reduction measures assessment (for premises where there is plant and equipment and/or sound systems, or "regulated entertainment").
(d) Planned management measures for control of noise disturbance related to door control, deliveries and collections, waste management, servicing, and any other aspects requiring control of noise. (This will be required in most noise reports and all applications where operating hours include any of the period 19.00-07.00 hours, and/or where door staff are required.)
(e) Planned management measures for control of noise disturbance from an open air site or event. (This will be required for open air sites and events.)

Environmental noise impact assessment
8. An Environmental Noise Impact Assessment should provide information, as applicable, including:
(a) Existing ambient noise climate and a survey of both pedestrian and vehicular numbers in and around the premises.
(b) Assessment of the existing and future noise climate due to the new or increased use of the premises, indicating any increase in predicted noise levels.
(c) Assessment of the existing and predicted number and level of noise events.
(d) An assessment of the acoustic character / quality of the vicinity of the premises and / or the receptor, this may require an assessment of a combination of ambient levels (L_{Aeq}) and other acoustic indicators and descriptors (L_{AFmax}, $L_{Zeq1/3Octave}$, $L_{ZFmax1/3Octave}$, SEL), agreement may be sought with the Council on the assessment approach.
(e) Details of management procedures to reduce the impact of the premises operation on the locality, including noise from customers and others arriving and departing.

Acoustic report (plant and equipment)
9. An Acoustic Report should provide information for both external and internal plant, and on the prevention of noise breakout from plant, equipment and internal activities. This should cover, as relevant:
(a) Mechanical and electrical plant, machinery and equipment and their locations, with manufacturers specifications: octave or 1/3 octave band analysis of noise for the proposed plant, machinery and equipment.
(b) The location of the nearest openable window of the nearest noise sensitive property that may be affected by noise from the proposed licensed use/plant and equipment, with the distance between these.
(c) The proposed operational hours.
(d) The background noise level assessment ($L_{A90,\ 15\ min}$) over the proposed hours of operation, including: the time, date, weather conditions, instrumentation and calibration, noise sampling locations, and a copy of the noise survey data (in accordance with BS 4142 measurement methodology).

Note: The use of 'Mean' background may be appropriate in line with BS4142:2014. However, caution must be taken where there are sudden changes in background levels (for instance, where plant and machinery switches off or activity no longer occurs). A 'mean' background which includes noise before and after a significant change in acoustic environment, may result in higher background level which is not representative of the true background conditions after an activity or plant has stopped. Consideration will be given to this point and although BS4142:2014 suggests a 'mean' background, a'lowest' background level ($L_{A9015min}$) may be more appropriate.

(e) Calculations for the predicted noise level 1 metre from the window of the nearest affected noise sensitive property.
(f) Use of acoustic enclosures.
(g) Use of noise attenuators and acoustic screens as required.
(h) Measures to ensure that plant, machinery and equipment is maintained to prevent noise levels from them increasing.
(i) Use of vibration isolators.

Sound insulation and sound reduction assessment.
10. A Sound Insulation and Sound Reduction Assessment should provide information, as applicable, on proposed:
(a) Assessment of the existing sound insulation of the building fabric.
(b) Operational building layout to prevent noise escape.
(c) Sound insulation measures to prevent airborne and structural transmission of noise and vibration to adjacent premises.
(d) Attenuation measures to minimise noise breakout, and to prevent noise disturbance to the surrounding area.
(e) Use of electronic sound limiters on amplification systems as alternative means of control.
(f) Other measures to reduce structural transmission of noise and vibration.
(g) Installation of acoustic doors and lobbies.
(Note: BS 8233:1999 contains useful guidance on commercial design criteria).

Planned management measures for control of noise
11. This is a statement of management measures to be taken to prevent and control noise, covering matters such as:
(a) hours of operation
(b) location of entry and departure points
(c) door control
(d) control and prevention of queuing
(e) control of amplified and unamplified music and voices

(f) steps to be taken to achieve good behaviour outside and within the premises
(g) communication with customers (signs, announcements and other means)
(h) management of use of outdoor areas
(i) steps to be taken to ensure customers leave quietly
(j) advice to customers on departure routes
(k) stewarded access to taxis and licensed mini-cabs
(l) arrangements for dedicated taxi or licensed mini-cabs to collect patrons in a manner so as to minimise any disturbance
(m) arrangements for staff and patron parking
(n) limits set on hours for servicing and delivery
(o) guidance to drivers to limit noise during deliveries
(p) communications with suppliers and service providers
(q) providing quiet means for storage and movement of waste and recycling materials.

Planned management measures for control of noise disturbance from an open air event or site.
12. This is a statement of management measures to be taken to prevent and control noise from open air events and sites, covering matters such as:
(a) hours of operation
(b) location of entry and departure points
(c) item (c) is missing in original policy document
(d) control of queuing
(e) management of amplified and unamplified music and voices
(f) steps to be taken to achieve good behaviour outside and within the open air site
(g) communication with patrons or members of the public (signs, announcements and other means)
(h) management of use of covered and outdoor areas
(i) steps to be taken to ensure customers leave quietly
(j) advice to customers on departure routes
(k) stewarded access to taxis and licensed mini-cabs
(l) item (l) is missing in original document
(m) arrangements for staff and patron parking
(n) limits set on hours for servicing, delivery and any other on site traffic movements
(o) guidance to drivers to limit noise during deliveries
(p) communications with suppliers and service providers
(q) providing quiet means for storage and movement of waste and recycling materials.

Noise criteria
13. Licensed premises and activities will be required to meet the noise criteria in Policy PN1. Noise reports should show how these criteria will be met. Plant noise breakout and structural transmission
14. Applicants should demonstrate that the licensed activities from indoor premises, and open areas associated with them, can be carried out so that plant noise, airborne noise breakout, and noise and vibration transmitted through structures, will meet the criteria for indoor premises below.
15. Applicants should demonstrate that the licensed activities from open air premises can be carried out so that plant noise, airborne noise, and noise and vibration transmitted through structures will meet the criteria for open air premises at paragraph 19 below.

Indoor premises plant and equipment
16. Premises should be capable of being operated at all times of year without doors or windows being opened for ventilation. Air handling and air conditioning plant and systems must be designed and located so that noise emitted meets the criteria in Paragraph 17 below. The council will require the applicant to ensure maintenance of building plant and machinery so that the above standards will be met at all times.

Indoor premises plant & machinery and internal activities
17. The criteria relating to:
(a) plant, machinery and associated equipment, internally or externally installed
(b) ventilation
(c) music and human voices, both amplified and unamplified and to
(d) other internal activities are noise emitted will achieve the following standards in relation to the existing external noise levels at the nearest noise sensitive
properties[6], at the quietest time during which any of these activities occur:

At the nearest façade of the nearest noise sensitive property, the noise generated from the property to be licensed (the $L_{Aeq,\ 5\ min}$) should not exceed 10 dB below the minimum external background noise during the operating period. The background noise level should be expressed in terms of the lowest $L_{A90,\ 15\ min}$; and;

[6] Noise sensitive properties include: all residential property; schools; hospitals; hotels; hostels; concert halls; theatres; broadcasting and recording studios.

where noise from the property to be licensed will contain tones or will be intermittent sufficient to attract attention:

At the nearest façade of the nearest noise sensitive property, the noise generated within each octave band level ($L_{Aeq,\ 5\ min}$) should not exceed 5 dB below the minimum external background noise level expressed in any of the individual octave band levels. The background noise level should be expressed as the lowest $L_{A90,\ 15\ min}$ for each of the octave bands during the operating period.

Indoor premises structural transmission of noise and vibration
18. Applicants should ensure that as far as is reasonably practicable, licensable activities will be conducted and the facilities for licensed activities will be designed and operated, so as to prevent the transmission of audible noise or perceptible vibration through the fabric of the building or structure to adjoining properties. In the case of licensable activities involving the playing of music or the operation of kitchens, or the running of plant after 23.00 hours applicants may be required to demonstrate this.

Open air premises plant & machinery and other activities
19. The criteria relating to:
(a) plant, machinery and associated equipment, internally or externally installed
(c) music and human voices, both amplified and unamplified
(d) other activities.
Criteria:
Account will be taken of:
(i) the type/s of events planned
(ii) the number of events that take place each year
(iii) the numbers of participants and people attending each event
(iv) the times of day and duration of events
(v) the days/dates of the events
(vi) conformity to The Noise Council's "Code of Practice on Environmental Noise Control at Concerts", guidelines and recommended noise control procedures
(vii) conformity to standards set by the council in relation to the existing external noise levels at the nearest noise sensitive properties.
The council has previously set standards in agreement with event organizers for lower noise levels than in Code of Practice on Environmental Noise Control at Concerts: published by the Noise Council.

People arriving, departing and in the vicinity
20. Applicants should demonstrate that appropriate measures will be taken to limit noise from patrons and staff entering and leaving the premises, and vehicles arriving, departing and in the vicinity to prevent avoidable noise disturbance to noise sensitive properties. The kinds of measures that may be used include:
(a) Installation of an acoustic lobby with inner and outer acoustic doors, designed to prevent both sets of doors being opened at the same time, together with management arrangements to ensure this.
(b) Signs and verbal advice to patrons to encourage them to limit noise as they wait outside and as they leave the premises.
(c) Guidance to patrons on routes to take as they depart, to cause least disturbance.
(d) Guidance to staff on their responsibilities to minimise noise from patrons as they arrive at and depart from the premises.
(e) Guidance to staff to minimise noise from any activities outside and in the vicinity of the premises.
(f) Arrangements for the calling of taxis, mini-cabs, cars or limousines from within the premises and for the collection of patrons by arrangement.
(g) Arrangements with dedicated taxi, minicab, car or limousine companies to collect patrons in an agreed manner so as to minimise disturbance.

Deliveries, collections and servicing
21. The criteria relating to deliveries, collections and servicing are that the applicant must demonstrate appropriate measures that will be taken to limit noise from these sources and that these will prevent avoidable noise disturbance to noise sensitive properties. Such measures may include:
(a) Ensuring that deliveries, collections and operational servicing are carried out between 07.00 and 19.00 hours, except where access at other times is unavoidable and specific procedures are in place to limit disturbance.
(b) Guidance to drivers to switch off engine during deliveries, collections and servicing, and to minimise other noise caused by their activities.