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NOISE MANAGEMENT PLAN

Page Lounge - Regulated Entertainment

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Location: Page Lounge 1 Parrock St, Gravesend DA12 1EW

Client: Page Lounge c/o Sadiq Muritala

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Executive Summary

Noise surveys have been undertaken at the Page Lounge in Gravesend with particular focus on the sound system installed for the provision of regulated entertainment. This document provides suitable limits alongside management procedures to ensure that the breakout of noise from all identified sources and activity at the premises are consistently maintained to a minimum. With this in place it is anticipated that the likelihood of adverse comment at the nearest identified residential receptors on Manor Road will be low at all operational hours.

It is acknowledged that previous comments have been received by residents relating to noise break out from the premises. Based on the conditions of the premises license and the experience of the consultant, this Noise Management Plan (NMP) is presented to assist the client and their staff in the prevention of future public nuisance and to fulfil the local authority's license objectives, balanced with the clients demands of delivering a high-level hospitality experience.

In summary, the assessment outcome that a music noise limit of LAeq, 5min 90 dBA in the centre of the main dance floor is viable for negligible impacts outside all neighbouring residential receptors under managed conditions. It is further recommended that the levels of low frequency (bass) be strictly controlled at source to a limit of LCeq 100 dB (A-weighted +10 dB) on the dance floor. This was shown to significantly reduce impact from low frequency noise on Manor Road while still maintaining suitable conditions for the enjoyment of the guests at Page Lounge.

The existing sound system configuration had reduced headroom to its maximum output, which was shown to be within range of the license limit. However, a cut-off limiter should also be installed that will interrupt the music after 20 seconds if these values are exceeded. The enclosed rear courtyard/garden should be closed at 23:30 to limit customer noise when background levels decrease in the community. The emergency exit (door, frame and window) within the main venue should be replaced to be acoustically graded. Further recommendations are made in detail in this document.

With these additional operational and managerial controls, recommendations, and limits put in place, it is anticipated that the likelihood of adverse comment from Page Lounge will remain low.

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1. Introduction

JG Acoustics Ltd has been appointed by Page Lounge to produce a Noise Management Plan (NMP) for the premises with consideration to the provision of regulated entertainment.

The aim of this NMP is to assist the client and their staff in the prevention of public nuisance balanced with the demands of delivering a high-level hospitality experience for their customers.

Gravesham Council's Premises license specifies the following:

Condition 7

The premises shall produce and operate in accordance with a Noise Management Plan. Such plan to be to the reasonable satisfaction or approval of the Environmental Health Service. Copies of the plan (and any subsequent revisions) will be lodged with the Licensing Authority.

Further conditions are made in the license with regards to limiting noise through administrative control and will be taken into consideration for this document. Additionally, it is noted:

Condition 4

A noise limiter must be fitted to the musical amplification system, set by a qualified acoustician in consultation with and to the reasonable satisfaction of an authorised officer of Gravesham Borough Council Environmental Health Service, so as to ensure that no noise nuisance is caused to local residents or business. (...) The limiter will not be altered without prior agreement with the Gravesham Borough Council Environmental Health Service. The noise limiter will be set at 90 decibels.

To fulfil the licensing objectives, the assessments within this document shall validate a suitable music noise limit from within the venue alongside robust management procedures to contain breakout from all sources of noise and prevent public nuisance.

Businesses have a statutory duty to prevent excessive noise. Therefore, implementing proactive and preventative noise control measures are an essential part of normal day to day operations. Similar procedures and methods outlined in this report have been successfully adopted for many establishments within the United Kingdom. They rely upon a transparent and collaborative approach between all stakeholders, including management, the local authority and surrounding community. General guidance is provided by the Institute of Acoustics (IOA) Good Practice Guide for Pubs and Clubs (2003), British Beer & Pub Association Guidance and The Control of Pollutions Act (COPA) (1974). British and international Standards, local and national policy are also taken into further consideration where applicable.

A glossary of relevant acoustic terms used in this report is contained in Appendix B.

2. About JG Acoustics Ltd

James Gardner is an associate member of the Institute of Acoustics and holds the Institute of Acoustics Diploma in Acoustic and Noise Control. He has also completed an MSc in Applied Acoustics from the University of Derby with distinction and an undergraduate degree at the University of Surrey in Music. From 2010 James also operated professionally as a Sound Engineer in the live events and broadcast industry and continues to consult regularly for venues, outdoor music festivals, planning and environmental noise. He has developed significant experience in sound and acoustics for many applications

JG Acoustics was first instructed by Mr Sadiq Muritala (11/05/2024) regarding a discharge of conditions for a kitchen extraction system and an assessment report was submitted. Mr Muritala contacted JG Acoustics on 10/06/2024 with the instruction to write a noise management plan and perform an acoustic assessment of the premises and its sound system. Prior to this assessment it was advised that extensive mitigation works had been carried out within the premises, including an acoustic lobby and triple glazing. The assessments performed by JG Acoustics are therefore in situ of any such previous works that may have been undertaken at that time.

This document has been prepared for the sole purpose described above and no extended duty of care to any third party is implied or offered. Third parties referring to the document should consult JG Acoustics Ltd as to the extent to which the findings may be appropriate for their use.

3. Premises Operations

Local Authority	Gravesham Borough Council
Management	Page Lounge
Licensee/ Director	Mr Sadiq Muritala
Venue	The Page 1 Parrock St, Gravesend DA12 1EW
Opening Hours	Monday to Thursday 12:00-00:00 Friday and Saturday 11:00-03:00 Sunday 12:00 - 00:00 Bank holiday, Xmas eve - 12:00 - 4:00
Premises Capacity	200
Description of Activities	Restaurant / Bar / Lounge
Sound Systems	Regulated entertainment in main bar. Small scale background level music only in enclosed rear courtyard.



Figure 1- The Page Lounge

4. Noise Management Strategy

All activities and sources of noise that may cause disturbance shall be identified and reduced as best as is practicable at the premises. This management plan shall be implemented through regular training and communication to all staff members.

Everyone is to be informed of the obligation to prevent noise disturbance as part of a normal good working practice. The Control of Pollution Act (COPA) (1974) advises staff and contractors should take reasonable steps to apply a 'best practicable means' (BPM) approach to demonstrate they are actively controlling noise. All noise impacts are to remain low at receptors from all premises operations. Management shall be obliged to brief all staff and contractors on these obligations of BPM.

Additionally, BPM can be applied across the premises by:

- Administrative and legislative control,
- Control of working hours,
- Control of delivery areas and times,
- Careful choice of location (sources not near noise-sensitive areas),
- Physically screening noise activity/ location,
- Control of noise via contract specification of limits,
- Noise Monitoring, if required by the local authority and conducted by a suitably qualified person and equipment.

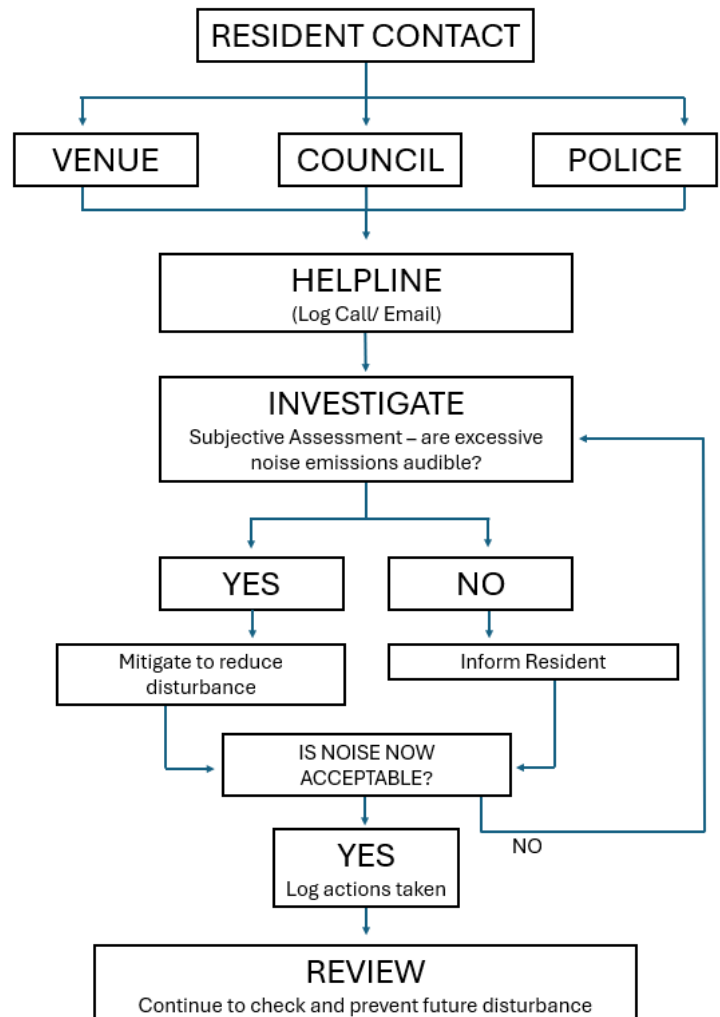


Chart 1 - Lounge 44 Management Procedure for Noise

Specific guidance can be sought from other sections within this document.

5. Community Engagement

All practicable steps will be taken by the management to maintain positive community relations. After the sector wide devastation from the Covid 19 pandemic, The Page Lounge's continued aim will be to contribute to the social cultural and economic recovery in the Gravesend area to the benefit of the local community. Engaging with this community and maintaining a positive relationship shall remain fundamental to its operation.

A direct means of contact via telephone and email shall be implanted at the premises during operating hours. A reported noise concern shall be responded to quickly and proactively by staff. Management and their staff will remain sympathetic to their local community, while continuing to ensure a reasonable level of enjoyment is provided for their customers.

Contact details of where these comments should be directed will be provided via the Page Lounge website and shall be updated as required.

The Premises Licence Holder or DPS or the responsible person must immediately comply with any request to adjust noise levels/ frequency spectra made by an 'authorised person' (as defined by Section 13 of the Licensing Act 2003) or the Police.

6. Relevant Guidance

JG Acoustics is pro-actively working with other industry practitioners to lead on suitable guidance for music noise assessment and management. Music from regulated entertainment can be a challenging area for noise management and there is a lack of official or formalised standards covering its assessment for indoor premises. Such an assessment and applicable criteria therefore relies upon a basket approach of guidance, objective measurements, reasonable professional judgement, and subjective assessments.

Public entertainment is specifically regulated by The Licensing Act 2003 in England and Wales. One of the main four objectives of the Licensing Act 2003 (for fixed premises or temporary) is the prevention of public nuisance. The licensable activity of providing live or recorded music entertainment (or any activity that includes it) falls under the scope of regulation, however it does not in itself regulate music noise (Licensing Act, 2003).

Venues providing regulated entertainment during night hours can sometimes be required to work to the subjective criterion of inaudible inside nearby dwellings. However, such a subjective criterion has been concluded in legal proceedings to be ineffective. Subjectivity alone would also have to factor the sum of all the aspects of human perception, attitude, hearing thresholds and the variations of them over entire population spectrums under any sort of conditions. Therefore, a subjective only criterion (such as inaudibility inside dwellings) can be argued to fall short in terms of effective planning, leaving such premises blind to their compliance and impacted residences unable to evidence their disturbance. Guidance that provides a more objective approach to achieve a similar target have been published in further studies by DEFRA.

IOA Guidance Good Practice Guide 2003/ DEFRA NANR92/ NANR163

The IOA Good Practice Guide 2003 was published the same year as the License Act was implemented. It advises that noise from music, singing and speech originating from inside and outside buildings is a common cause of complaints. The majority arise because music and associated noise is audible in nearby or adjoining noise-sensitive gardens and amenity areas. It advises that local authorities should implement clear planning and enforcement policies. Guidance from this document informs parts of this NMP document. .

Guidance from the IOA working group on pubs and clubs was also published within the DEFRA report NANR92. The included annex suggests measurement parameters for achieving a subjective inaudibility target at night-time from music with objective methods. The guidance however was withdrawn by the IOA as it was accepted by the group that the parameters can produce inconclusive results. Some of the guidance was also closely mirrored by the British Beer and Pub Association, so while not published by the IOA, remains very much relevant and in circulation.

Part II of this study was presented in DEFRA NANR163 in 2006, and despite the earlier recommendation for more laboratory testing, indicated that the best performers under such conditions were not always compatible with real world conditions. However, the DEFRA report presented 'best of available options' in order of correlation to subjective response.

Under lab conditions, the best performer indicated in DEFRA NANR163 for a correlation in subjective response is 'an absolute LAeq,5 min with an additional subjective requirement for

clearly audible to an ontologically normal listener ‘e.g., the songs/tracks would be recognisable to a listener familiar with the music and any words intelligible’. Based on this and the experience of JG Acoustics it has been found to be an effective initial approach for assessment. (DEFRA, 2006)

World Health Organization Guidance / BS8233

The World Health Organisation’s (WHO) Guidelines for Community Noise (1999) provides relevant ambient noise levels in residential dwellings as summarised below. These guidelines are reflected in BS8233:2014, however their scope is limited with regards to music noise levels.

Table 1 - WHO (1999) and BS8233 criteria.

Location	LAeq	Time Base (Hours)	LAmaz
Outdoor Living Area (Daytime/ Evening)	55	16 (Daytime / Evening)	-
	50	16 (Daytime / Evening)	-
Dwellings Indoors (Daytime/ Evening)	35	16 (Daytime / Evening)	-
Inside Bedrooms - Night	30	8 (Night-Time)	45
Outside Bedrooms (Window Open) Night	45	8 (Night-Time)	60

Institute of Environmental Management and Assessment (IEMA) 2014

The IEMA guidance for environmental noise impact assessment (2014) advises a suitable methodology where sources of noise may potentially impact nearby residents and where there is no formal assessment methodology (such as music).

In summary, the grading of effects can be evaluated against a change in sound levels due to a new activity. Table 7-12 of the guidelines outlines the thresholds of an estimated effect with consideration to its context.

Paragraph 7.6 further summaries that “In some situations, the conclusions about the degree of the impact will be clear and straightforward; but in others it is likely that, ultimately, a professional judgment will have to be made by the assessor. It must be remembered that the effects of noise are primarily subjective, and while it is desirable to include as much objectivity as possible into the assessment process in order to obtain consistency, there should be no concern in allowing professional judgment to come into the final analysis. However, the basis for the judgment made must be clearly set out so that it is clear how the conclusion has been reached.”

Table 2- IEMA Table 7-12 thresholds of estimated effect.

Very Substantial	Greater than 10 dB LAeq change in sound level perceived at a receptor of great sensitivity to noise
Substantial	Greater than 5 dB LAeq change in sound level at a noise-sensitive receptor; or a 5 to 9.9 dB LAeq change in sound level at a receptor of great sensitivity to noise
Moderate	A 3 to 4.9 dB LAeq change in sound level at a sensitive or highly sensitive noise receptor; or a greater than 5 dB LAeq change in sound level at a receptor of some sensitivity
Slight	A 3 to 4.9 dB LAeq change in sound level at a receptor of some sensitivity
None/Not Significant	Less than 2.9 dB LAeq change in sound level and/or all receptors are of negligible sensitivity to noise or marginal to the zone of influence of the proposals

While estimated effect levels are indeed informative, music impacts are highly variable due to this critical subjective response. Additional impacts from low frequency noise are not factored into the A-weighted parameter and should also be considered. JG Acoustics takes the approach that measurements using a sound level meter remain the best available yardstick to assess and implement control for music noise alongside subjective assessments on a case-by-case basis.

7. Site Survey

The Page Lounge is a restaurant and bar within Gravesend Town Centre. In the area are other commercial properties, bars, pubs, kitchens and restaurants and some residential flats on the upper floors on Manor Road. There are no hospitals, or schools identified within its immediate area. The premises is adjacent to Parrock Road and Manor Road and is also next to the main line railway connecting Gravesend to London. It is therefore impacted by road, rail and air noise which were observed to be dominant in the surrounding noise climate.

Identified residential premises near the venue are shown below in figure 1. Measurement positions were selected as practicable to ensure reliable results, without obstructing access, creating a hazard and to ensure security of the equipment. During unattended measurements (baseline) remote access monitoring was also set up with GPS tracking to ensure the equipment was not tampered with or moved from site (SvanNet). All measurements were undertaken using class 1 traceable equipment (further detailed in Appendix D, E and F) and equipment was also field calibrated to class 1 with no drifts reported. Measurements were performed under suitable meteorological conditions.

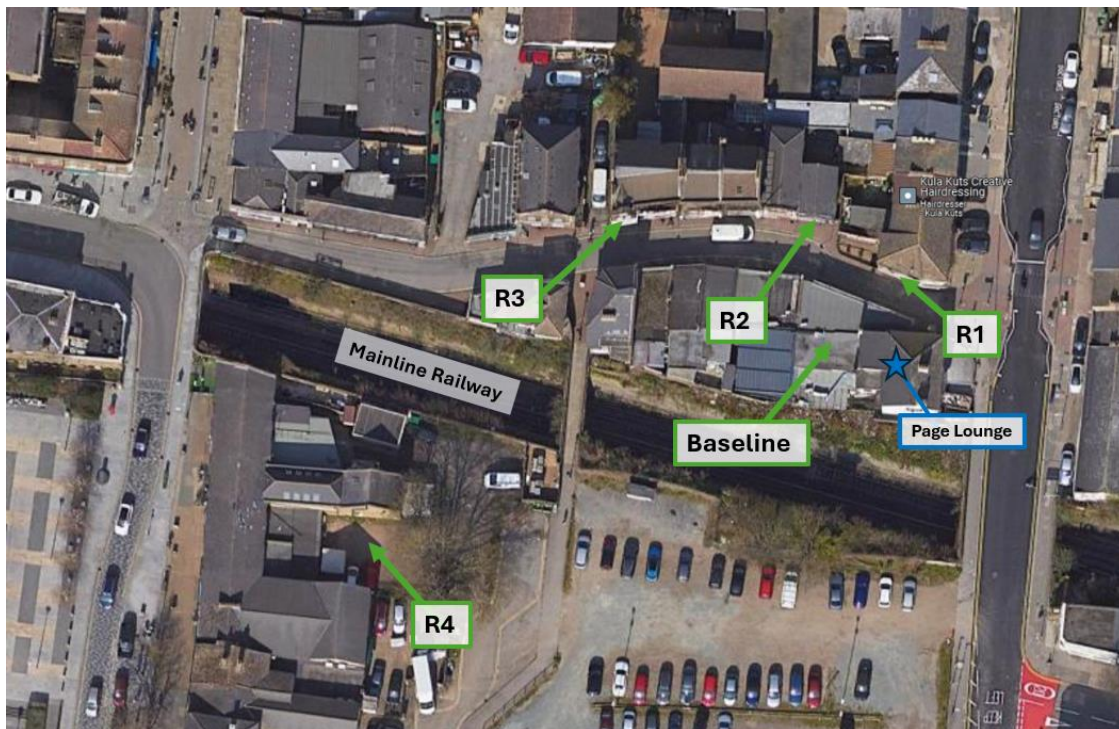


Figure 2- Map of The Page Lounge and the surrounding area.

Table 3- Receptor Table

NSR #	Address Point	Class	Direction
R1	Flat 204 Parrock Rd	Residential Flats	N
R2	Flat 15 Manor Rd	Residential Flats	N
R3	Flat 7 Manor Rd / The Courtyard	Residential Flats	NW
R4	Towards Eden Pl, Rear of Eden St.	Mixed/ Residential Rear	SW

8. Regulated Entertainment Assessment

8.1 Baseline Noise Survey

The community background levels were measured with guidance from BS7445-1:2003 and at a position that is representative of the noise climate surrounding the receptors on Manor Road. This consisted of a rolling 24-hour unattended measurement under suitable weather conditions. This survey was performed on the 14-15th May 2024.



Figure 3- Baseline measurement position.

The Svantek 307 was positioned 5m from the nearest façade at a height of 1.5m above a flat roof surface. This was in line with the nearest first floor receptors on Manor Road, as shown in the above image (figure 3). 100ms LAeq logging with a Fast response time was selected along with a contiguous 15 min interval for post processing to highlight any erroneous data.

Table 4 - Baseline noise survey results

	Residual Level (LAeq dB)	Representative Background Level LA90 dB
Day, 1 hour 07:00-18:00	56	51
Night, 15 min 23:00-07:00	53	40
Evening -(18:00-23:00)	56	49

Logging charts are also provided in Appendix D.

8.2 Music Breakout Test

The venue is on the ground floor and consists of a bar/ restaurant area with a small dance floor. To the rear of the venue through an acoustic lobby is an enclosed courtyard area. This outdoor area is provided with a small sound system which is for providing background level music that facilitates normal conversation without raised voices. The dominant contribution from the Music Noise Level (MNL) breakout was observed to be from the main sound system in the dancefloor area of the venue.

The current license provides for a '90 decibel limit' which was reasonably interpreted by typical conditions to represent an LAeq 90dB in the dance floor area for the Music Noise Level (MNL). For this assessment the reference time-period for measurement on the dance floor was 5 minutes. 1/3 octaves and C-weighted levels were also logged during all measurements. Short and repeated measurements outside the venue of 10 seconds were considered practicable to isolate the MNL against very significant and constant traffic and rail noise. This relied on the consultant's best judgment using the pause button on the sound level meter.

A Svantek 971a Class 1 calibrated meter was positioned in the centre of the dance floor as a reference point, as this was the position where levels were at their highest in the venue. Measurements were then taken outside of the premises under typical operating conditions at 1m from the façade of the identified residential receptors (as shown in figure 1) with the exception of R4 which was in a car park. The raw data and information from this breakout test are shown in Appendix E.

James Gardner performed the music breakout test on the 11/06/2024 between 11:00-14:00. The sound system was set to its maximum level of around LAeq 90 dB and this remained consistent during the test. Tests were performed using both pink noise and representative Electronic Dance Music (EDM) that the venue often provides.

Result

- Result of this test indicates that MNL LAeq 90 dB on the dance floor does not materially increase ambient levels at any of the receptors. Subjectively, at R1 the MNL was audible when traffic was not present. Outside R2, 3 and 4, the MNL was observed to be barely audible to inaudible at this time and under such conditions.
- As the MNL generally did not dominate in the measurements, it could not be isolated against the ambient residual level at all receptors. This indicates the MNL breakout is -10dB or greater below the background levels at R2, R3 and R4. Ambient measurements (MNL + community noise) were therefore perceived to align with the existing background without any contribution to levels from MNL.
- At R1 (nearest position) the MNL and pink noise was slightly audible at times when the traffic was low. This was largely due to the proximity of R1 to the side emergency exit door. This door was observed to have a low acoustic performance and this emergency exit was perceived to be the weakest point for noise breakout from the

venue at ground floor position. When moving down Manor Road and away from this exit, a sharp decrease in the MNL's audibility could be observed. This was demonstrated to the client at the time, and it is anticipated that with a suitably acoustically graded door this can be reduced further to be inaudible.



Figure 4- Fire exit pointing towards R1 on Manor Road.

- Measurements were taken close to the fire exit (2m roadside) and with this breakout it is possible to predict a specific MNL by calculation at distance, where measurement could not determine the specific MNL due to high community noise levels.
- An estimated effect as per IEMA guidance can be determined during more sensitive night-hours, with comparison to baseline data. This LAeq prediction is presented below in Table 5. Façade incident levels are shown as there are no outdoor amenity areas to consider to the front of Manor Road residences. The nearest venue façade from the receptor was also considered for distance calculation rather than distance from the fire exit itself, to ensure a worst case scenario for MNL breakout.

Table 5 - Specific MNL calculation/ prediction at R1 R2 R3 R4

Parameter	R1	R2	R3	R4
Lnight Venue Closed (Representative 23:00-07:00) [dBA]	53			
Distance from Venue [m]	5	16	26	53
Predicted LAeq (Specific Source Level) Free Field/ Façade Incident. [dBA]	51	41	36	30
Total Ambient Level Night Time (inc MNL)	55	41	36	30
Ldiff Night-time [dBA]	4	0	0	0
IEMA Predicted threshold of estimated effect from MNL at Night-time	None/ Not Significant	None/ Not Significant	None/ Not Significant	None/ Not Significant

- At all receptors the LAeq impact would be none/not significant during the most sensitive night hours. While this is a positive outcome, it is recommended that the fire exit be upgraded from its current light weight wooden material to an acoustical graded door, including the frame and glazing. With this observed weakest point of the noise breakout mitigated it is anticipated that at all receptors there will be no

measurable increases in ambient levels from regulated entertainment at Page Lounge.

- With reference to BS8233 and WHO guidance, the existing baseline levels (venue not operating) were indicated to already be elevated outside residential dwellings at night, largely due to road and rail noise contributions. The assessment and calculation above further demonstrate that the MNL from the premises would not materially contribute to any increase in this ambient level. At R2,3 and 4 the specific MNL level was also below the WHO/8233 thresholds.
- The result of this breakout test indicates that under managed conditions the MNL at the dance floor of LAeq 90dB should be viable during night hours. An estimated effect level of none/not significant can also be maintained during all contiguous 15-minute residual measurements at night to provide a robust worst-case outcome.
- Due to uncertainty and assumptions in calculation it was advised to assess the premises while it was open at night hours to provide additional validation. Further considerations for low frequency noise impacts can also be determined if audible at that time and are provided in the next section.

8.3 Night Hours Assessment (Venue Open)

All operational noise and MNL were also assessed during opening hours between 21:30-02:00 on Friday 14th – Sat 15th June . A similar procedure was followed with a SLM at the dance floor to correlate to outdoor measurements. A DJ was present along with a drummer and some instrumentalists to provide for a worst-case scenario evening. The raw data of these measurements is provided in Appendix F.

Audibility of all the venue activity was significantly masked until around 23:00 by traffic and other community noise. There were other commercial premises on the street also playing music with windows and doors open until around 23:30 and these were more impactful than Page Lounge at this time. The origin of this music noise may not be perceptible unless observing this at street level.

At 23:30 it was observed that audibility of the venue increased. R1 was still dominated by breakout from the fire exit and measurements were within tolerance to the previous test. However, R2, R3 and R4 appeared to be impacted from another propagation pathway that was previously inaudible. This marked the first occasion where the venue could be heard by the consultant further along Manor Road, albeit still to a low level that would not necessarily dominate any metered measurement. The LAeq from MNL at the ground floor positions at R2, R3 and R4 generally correlated to the breakout test estimations, however now the low frequency component was audible it required separate assessment.

The residential premises on Manor Road are all on the first-floor level. It was noted that the other commercial properties opposite the ground floor position could be providing some level of acoustic shadowing where noise may be breaking out through the roof of Page Lounge. The consultant went to the edge of the roof of Page Lounge and took measurements in line with the first-floor windows, as shown in figure 5.



Figure 5 - Measurement position for upper floors on Manor Road.

The roof structure attenuated high and mid-level frequencies effectively but there was a low frequency breakout through the venue roof that was not previously perceptible. This noise could in theory follow a direct propagation path to the first-floor residential windows without the benefit of any acoustic shadowing. Correlating this with the measurement data within the venue indicated that a significant low frequency (LF) component was present and that there was ample headroom to reduce this without impacting the enjoyment of customers.

Control

Given the broadband and impulsive nature of music, JG Acoustics always approaches LF firstly by considering the difference between the A-weighted and C weighted level. The A-weighted level largely disregards LF, whereas the C-weighted includes this additional component and is relevant when source levels are within region of 100 dB.

At the dance floor, the C-weighted parameter was shown to be within region of LCeq 110 dB when also running at the LAeq 90 dB license limit (+20 dB). This differential can vary significantly between different genres or music, sound systems and venues, however under all conditions +20 dB indicates a significant LF level at the dance floor and room for a reduction.

For EDM and at an audience position +12 dB is generally considered adequate. However, in the case of Page Lounge (and in discussion with this client) it would be necessary to go slightly further. The bass was reduced at the systems password-controlled management panel (only accessible to the license holder) to achieve a 90A/100C correlation. This was subjectively still acceptable for customer enjoyment while also significantly reducing the

impact of LF/bass at receptors on Manor Road - to note, a -10 dB reduction equates to half the perceptible 'loudness' to most people. Returning to the roof, this controlled reduction was found to significantly reduce the audibility of bass at the roof edge and likelihood of adverse comment from residents on Manor Road.

Chart 2 below shows the measurements at the dance floor before and after the mitigation was applied to continuous music.

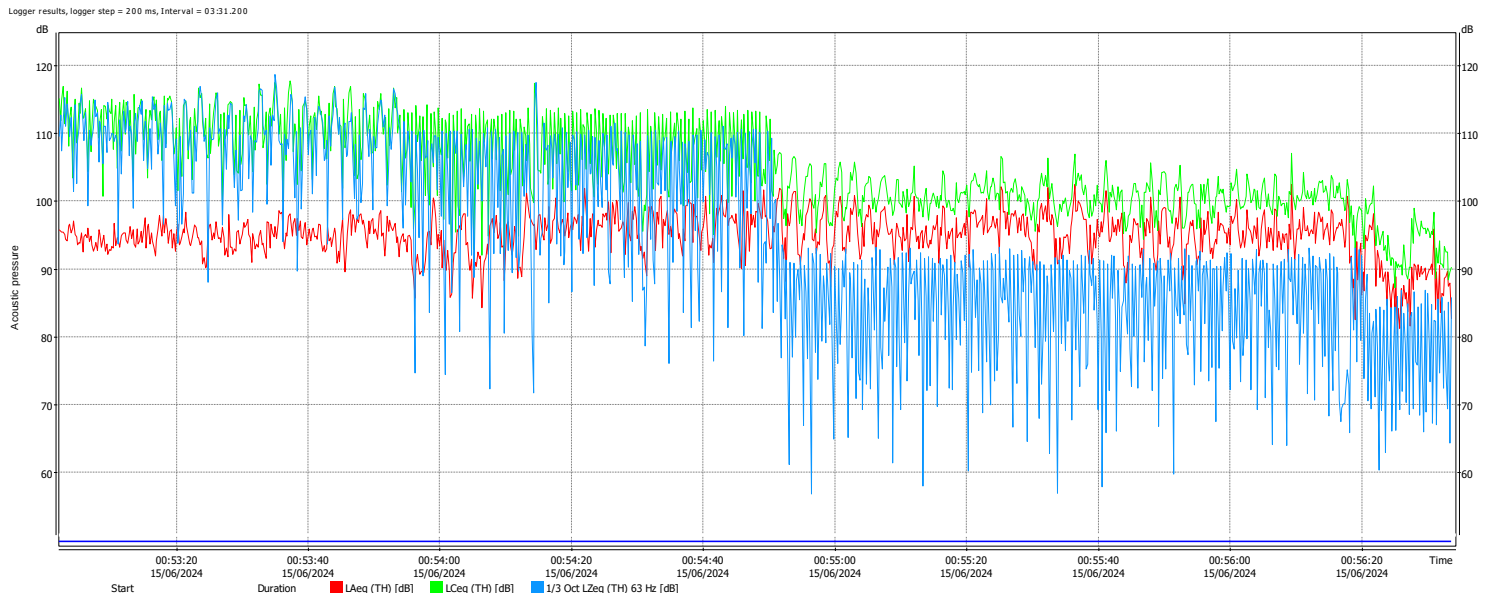


Chart 2- Showing LAeq (red) LCEq (Green) and 1/3 Octave 63Hz (Blue) before and after bass reduction in the venue

It can be observed in this scenario that when the low frequency emission is reduced (at approx. 00:54:50) the 200ms LAeq still remains consistent and can be maintained to a reasonable level for audience enjoyment.

A noise limiter should be set to LAeq 90 dB and LCEq 100 dB and should switch off the sound system after a time period of 20 seconds. It should measure levels at the dance floor area and be visible to the staff and not be possible to bypass or tamper with. A Sentry MK2 Cut off limiter (or similar) is recommended and should be installed and maintained by a suitably qualified contractor. With this in place subsequent increases in level from the sound system should be suitably prevented. Additional management and control to limit noise breakout will be provided in the next sections.



Figure 6- Sentry MK2 Cut Off Limiter

9. Customer Noise

Customer noise that causes impact is possible where large groups of people gather and can be prevented with robust management. Customer noise breaking out from inside the venue was not discernible along Manor Road. The rear courtyard was open throughout the night of assessment with the retractable roof closed. This area was generally relaxed and quiet but did become more elevated for customer noise around 01:00.

In discussion with the client, it is advised to close the courtyard area from 23:30 allowing time for it to be fully vacated by 00:00 when outside background levels are lower. By closing this courtyard, the impact from customer noise during sensitive hours along Manor Road would be controlled. As the venue reached capacity it was noted that the front of the venue did not materially contribute to customer noise impacts at that time.

Mitigation for all customer noise is provided below:

- Closing the rear courtyard at 23:30 and vacated by 00:00. Should customers wish to leave the venue this shall allow for a gradual dispersal. The rear courtyard to be used only for conversation without raised voices (no televised sport or other events to take place outside that can encourage loud or rowdy behaviour). Provisions for this should be made within the venue.
- Signage is to be displayed at the exit advising to please keep noise low and to respect our neighbours.
- Last resort requests to be issued where excessive noise from customers is not reduced or they are to be removed from venue. Door staff shall be instructed to appropriately remove anyone who does not comply with the request of staff to reduce noise.
- Security are to be made aware to keep noise to a minimum at the front of the venue and discourage large gatherings of people – condition 12 of the license specifies a maximum of 10. Should a queue form outside the premises for entry, this should be directed away from Manor Road.
- A drink up policy shall be adhered to for gradual dispersal and to reduce sudden noisy or rowdy behaviour outside.
- Clear information is to be provided for customers seeking taxis or directions (to avoid loitering outside at late hours). Taxis and pickups are to be encouraged away from Manor Road residential premises.

10. Other Operational Noise

Management shall maintain a strong and robust approach to dealing with anything that may trigger an adverse comment from noise. Management methods and considerations for the control of other operational noise are included in Table 6 below. Some of these cannot be reasonably limited to absolute noise limits or parameters but reduced through BPM and prevented through operational control.

Table 6 - Other identified operational noise

Source	Anticipated Hours of Operation	Description of Noise	Control Methods
Deliveries and Collection Vehicles	Daytime Hours Only	Vehicle Movements, impact noise.	• Restricted to core daytime hours. • Idling engines to be switched off.
Bins and Bottle Banks	Strictly Daytime Hours	Sudden impact noise. Impact of Bottles and Glass.	• Known disturbance is caused by loading empty bottles at night. Restrict loading external bins to core hours.
Air Handling and Kitchen Extraction	-	Typically broadband.	• Use according to any relevant planning conditions. Regular servicing and maintenance to avoid wear and tear increasing noise levels over time.

Anything not detailed in this document should be assessed by staff as to whether it is appropriate at the time of the activity. Please refer to Chapter 4 (Noise Management Strategy) for information regarding a best practicable means (BPM) approach.

11. Overall Recommendations for Robust Management

- Music noise limits should be maintained by an appointed manager and the sound system levels are not to be increased ad hoc or out of hours, which could subsequently lead to disturbances for neighbours. A cut-off limiter will sufficiently prevent this but will not diminish the responsibility of management to ensure suitable levels are maintained and additional break out is prevented.
- As for all venues, it is critical that doors and windows are to be kept closed to prevent additional break out of noise from the venue with the set MNL limits in place. Acoustic lobbies should be designed to ensure one door always remains closed and fire exits should only be used for their intended purpose. All doors and windows should also have self-close mechanisms installed, or be manned at all times. Suitable ventilation or cooling should be provided by mechanical or air conditioning where open doors/windows cannot be relied upon to maintain acoustic conditions. It is understood that AC is installed in the venue and in operation.
- As previously outlined the fire exit should be upgraded to a suitable acoustically graded door including its frame and glazing.
- It is recommended to gradually reduce music levels as the night progress and prior to closing or switching off the system.
- Background music in the enclosed courtyard area is intended only for the purpose of ambience (muzak) and at a level that still permits normal conversation without raised voices. This system should be switched off before the courtyard area is closed at 23:30.
- Any external suppliers (DJs) shall be vetted and made aware of control methods for amplified music and any operational limits that have been set. No sound systems are to be brought to the premise other than what has been prior assessed and controlled. Monitors for performers should only be used that are in-ear and not additional loudspeakers. Drums (such as Djembe or Saxophone) should not be reinforced with a microphone in the venue.
- The license also states in condition 2 that:
Door supervisors will actively monitor this area and ensure doors are kept closed. Sound monitoring will take place on an hourly basis from 23:00 and the noise levels will be recorded.

With respect of this condition, it necessary to ensure that any measurement data collected is reliable and therefore from a minimum of a class 2 lab and field calibrated sound level meter. Due to the complexity and number of noise sources already in the area, the provision for any data should be collected and analysed by a suitably qualified acoustic consultant.

12. Review

This Noise Management Plan is subject to regular review. Consideration should be taken to new noise sources that may be introduced throughout the normal operation of Page Lounge, or existing ones that may change over time. Further review and assessment may be required in response to adverse comments that may be submitted to the management or local authority. The client shall advise all staff of the need to maintain suitable noise levels as per the specifications of this document or licensing conditions and to review and assess noise impacts as part of their normal day to day duty.

13. Conclusion

The provision of regulated entertainment at Page Lounge shall be controlled and limited to prevent future disturbance. Tests were carried out of the music noise level (MNL) impact on the surrounding area. This included a daytime breakout test and rotational assessment in the early hours of Saturday 15/06/2024 under a reasonable worst-case scenario. Further considerations were made for other sources of noise coming from the premises.

The assessment outcome was that a MNL limit of LAeq, 5min 90 dB in the centre of the main dance floor is viable for providing no significant impacts at all neighbouring residential receptors on Manor Road under typical managed conditions.

Additional disturbance from low frequency (bass) was noted possible under existing conditions. To prevent future adverse comment, a significant low frequency reduction and limit should be implemented of LCeq 100 dB (5 min) in the venue. Limiting the bass at the sound system was found to significantly reduce low frequency audibility at first floor positions on Manor Road. This noise management plan also provides suitable management procedures to maintain a consistent low noise impact to neighbouring residents, including from other sources of noise (such as customers).

With these additional managerial controls, recommendations, and limits in place, it is anticipated that the likelihood of adverse comment from consistent regulated entertainment at Page Lounge will be low.

Appendix A - References / Bibliography

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3. British Standards Institution (2014) *BS 8233-1:2014 Guidance on sound insulation and noise reduction for buildings*. London: BSI.
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6. DEFRA Department for Environment, Food and Rural Affairs (2006), Noise from Pubs and Clubs – Phase 2 DEFRA contract on. NANR 163. London: DEFRA.
7. IEMA (2014) *Guidelines for Environmental Noise Impact Assessment*. Cambridgeshire: IEMA.
8. Institute of Acoustics (2003) Good Practice Guide on the Control of Noise from Pubs and Clubs. Milton Keynes: Institute of Acoustics.
9. The Noise Council. (1995) *Code of Practice on Environmental Noise Control at Concerts*. UK: The Noise Council.
10. World Health Organisation (1999) *Guidelines for Community Noise*. Geneva: WHO.

Appendix B - Glossary

A, C, Z Weighted	A, Z, C frequency weighting measurement scales.
ANC	Association of Noise Consultants
Background Sound/Noise Level	Typically, the calculated LA90 dB. Underlying level of sound over a period, T.
BPM	Best Practicable Means (Control of Pollution Act).
COPA	The Control of Pollution Act 1974
dB	Decibels
EHO	Environmental Health Officer
EDM	Electronic Dance Music
F / S	Fast / Slow measurement time constant.
FOH	Front of House (mixing desk position)
IOA	Institute of Acoustics
L90 / LA90	A weighted background sound level calculated from statistical analysis. Noise level exceeded for 90% of the measurement period.
LAFmax	A weighted maximum sound level measured with a fast time-constant.
Leq / LAeq / LCeq	Equivalent sound pressure level.
LF	Low Frequency or Bass
LOAEL	Lowest Observable Adverse Effect Level
Lp	Sound Pressure Level.
Lw	Sound Power Level (dB)
MNL	Music Noise Level (specific source level)
NMP	Noise Management Plan
NOAEL	No Observable Adverse Effect Level
NPPF	National Planning Policy Framework
NPSE	National Policy Statement England
NSR or R	Noise Sensitive Receptor or R for receptor.
Pop Code	Code of Practice for Concerts 1995
ProPg	This Professional Practice Guidance on Planning and Noise
Residual Sound/ Noise Level	The ambient sound with the specific sound source suppressed. Typically, LAeq.
SLM	Sound Level Meter
Time Period (T)	Measurement Time Period/ Duration.
WHO	World Health Organisation

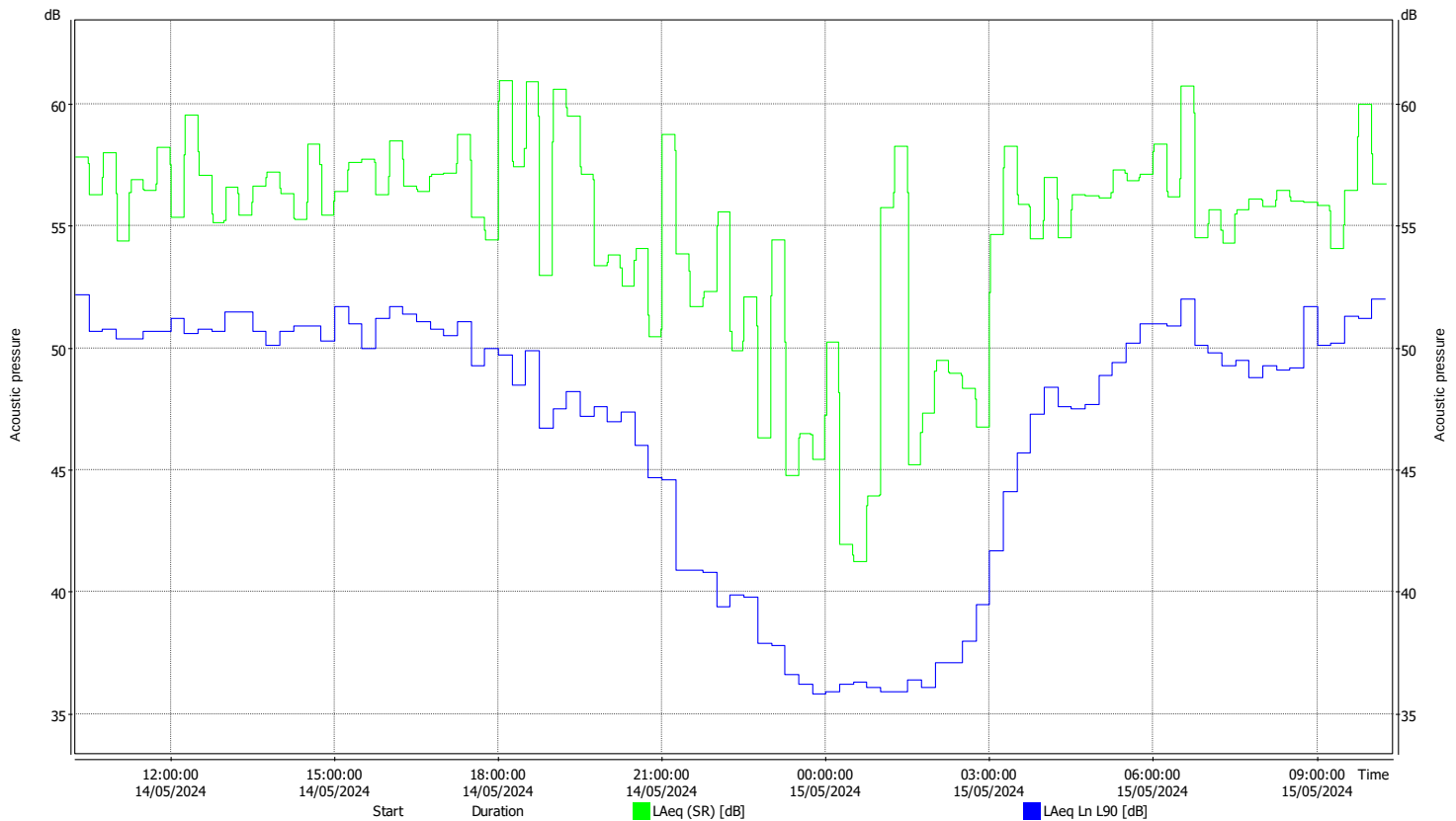
Appendix C - Complaint Logging Example

Unique Case ID	<i>(numerical i.e. 001)</i>
Date	
Venue Call/ Email Handler Name	
Time of Contact	
Contacted Via <i>(Email/Phone)</i>	
Name	
Address	
Telephone	
Location of Noise	
Time of Noise	
Repeat Complaint?	
Description of Complaint <i>(Music, Other)</i>	
Further Comments	
Review	<i>Was the resident attended, any further contact? How was the matter resolved?</i>

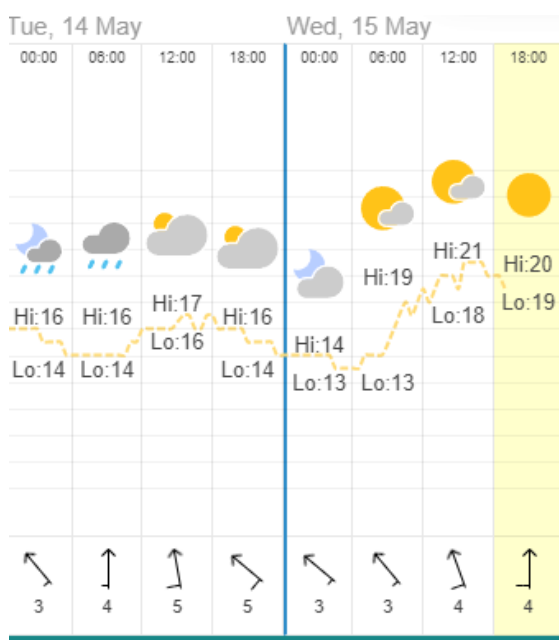
Appendix D - Baseline Survey Logging Data

Svantek 307 Class 1 SN:87829 Calibrator SN:116633 with remote connection via SvanNET.

Logger results, logger step = 01:23.228



- Raw data and calibration certificates are available on request.



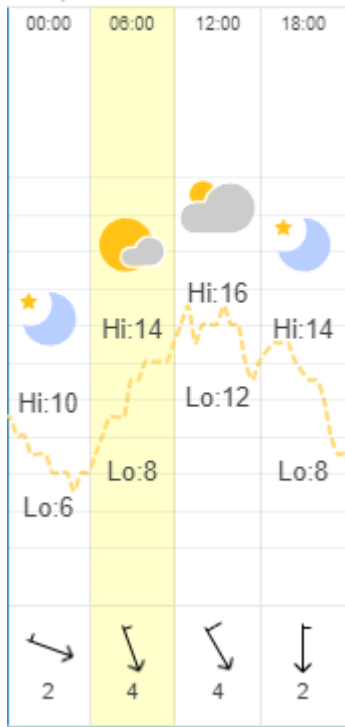
- Measurement period was dry. (14th pm only and 15th daytime)
- No wind observed at measurement position.
- Cloud cover estimate 50%.
- 70-94% humidity recorded during 24-hour measurement period.
- °C, Winds m/s.
- Source www.timeanddate.com Past Weather.

Appendix E - Breakout Test Raw Data

11/06/2024 Page Lounge Breakout Test. Svantek 971a SN:131655. Calibrator SN:125825							
Source	Position	No.	Start Time	Duration	LAeq [dB]	LCeq [dB]	Notes
Music	Fire Exit	1	12:14:05	10 s	63	74	For reference only. 3m from door.
	• R1	2	12:14:52	10 s	57	70	MNL Audible, fluctuating against background.
	• R1	3	12:15:23	10 s	58	69	MNL Audible and quite isolated in this measurement.
	• R1	4	12:16:59	10 s	60	73	MNL Audible.
	• R2	5	12:17:43	10 s	52	63	MNL audible but below typical background.
	• R2	6	12:18:10	10 s	52	62	MNL audible but below typical background.
	• R2	7	12:19:44	10 s	58	72	MNL audible but below typical background.
	• R3	8	12:21:00	10 s	49	62	Barely audible/ discernible. Traffic noise further.
	• R3	9	12:21:34	10 s	56	67	MNL Inaudible. Less traffic noise.
	• R3	10	12:23:22	10 s	51	64	MNL Inaudible. Less traffic noise.
	• R4	11	12:25:04	10 s	53	64	MNL Inaudible. Less traffic noise.
	• R4	12	12:25:33	10 s	49	65	MNL Inaudible. Less traffic noise.
	• R4	13	12:26:34	10 s	50	67	MNL Inaudible. Less traffic noise.
	Front of PL	14	12:28:55	10 s	66	76	Music audible between traffic, no receptors at position. Reference only.
Pink Noise	Fire Exit	15	12:54:22	10 s	66	74	For reference only. 3m from door.
	Fire Exit	16	12:54:41	10 s	63	79	For reference only. 3m from door.
	• R1	17	12:55:14	10 s	53	67	Other music coming from salon opposite dominant
	• R1	18	12:55:42	10 s	59	69	Other music coming from salon opposite dominant
	• R1	19	12:56:36	10 s	63	72	Audible pink. Music from salon very dominant.
	• R2	20	12:57:09	10 s	56	69	Pink inaudible. Music coming from salon.
	• R2	21	12:58:02	10 s	55	68	Pink inaudible. Music coming from salon.
	• R2						Stopped as the other salon door now propped open with hair dryers running.
	• R3	22	13:00:22	10 s	53	67	Inaudible
	• R3	23	13:00:44	11 s	53	72	Inaudible
	• R3	24	13:00:58	12 s	58	72	Inaudible
	• R4	25	13:02:12	13 s	52	65	Inaudible
	• R4	26	13:02:39	14 s	48	65	Inaudible
	• R4	27	13:03:05	15 s	50	65	Inaudible
	Front of PL	28	13:05:11	16 s	63	73	Audible but low when traffic not present.
	Rear Courtyard Middle	29	13:06:30	17 s	68	72	Courtyard level when doors closed and dance floor Leq 90dBA
	Rear Courtyard Left	30	13:07:14	18 s	69	71	Courtyard level when doors closed and dance floor Leq 90dBA
	Rear Courtyard Right	31	13:07:47	19 s	68	73	Courtyard level when doors closed and dance floor Leq 90dBA

11/06/2024 Page Lounge Breakout Test FOH/ Dance Floor Svantek 971a SN:121067. Calibrator SN:125825					
Source	Venue Position	Start Time	LAeq, 5 min [dB]	LCeq, 5min [dB]	Notes
Music	Venue Dance Floor Middle	12:13:06	90	106	House Music.
		12:18:06	91	106	House Music
		12:23:06	91	105	House Music
		12:28:06	90	107	House Music
		12:33:06	88	106	House Music
Pink Noise		12:58:06	92	99	Steady
		13:03:06	92	99	Steady
		13:08:06	92	99	Steady
		13:13:06	92	99	Steady

Tue, 11 Jun



- o Measurement period was dry.
- o No wind observed at measurement position.
- o Cloud cover estimate 50%.
- o 57% humidity recorded during measurement period.
- o °C, Winds m/s.
- o Source www.timeanddate.com Past Weather.

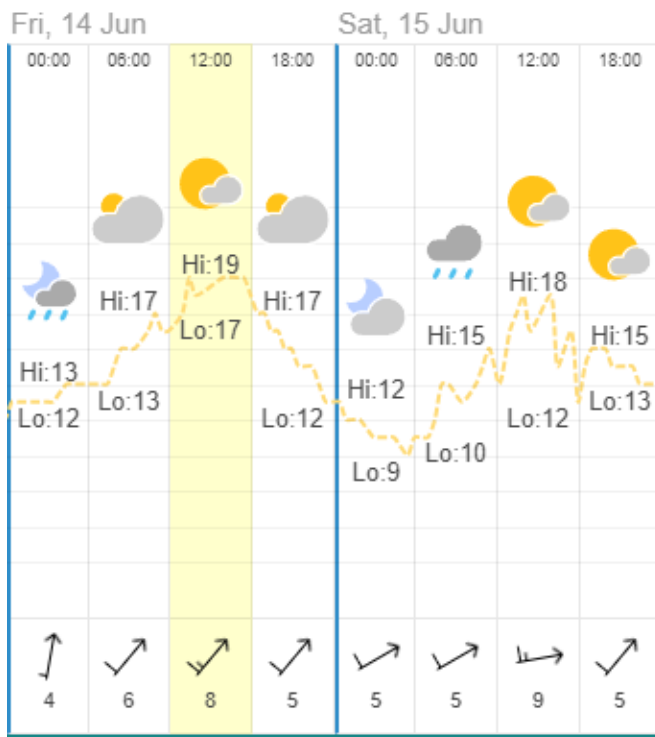
Appendix F - Monitoring Raw Data

The following measurements were undertaken while the premises was open on a Friday 14th June night and 15th June 2024 (Saturday morning).

14-15/06/2024 Page Lounge Monitoring Assessment (Premises Open) Svantek 971a SN:131655. Calibrator SN:125825						
Position	No.	Start date & time	Duration	LAeq [dB]	LCeq [dB]	Notes
Courtyard (rear)	1	14/06/2024 22:35	00:32.0	64	78	People talking without raised voices. Lobby doors closed.
Courtyard (rear)	2	14/06/2024 22:38	01:01.0	66	75	People talking without raised voices. Lobby doors closed.
Edge of Roof Nrst R1/2/3	3	14/06/2024 23:01	01:01.0	51	66	LF only audible.
Middle of PL Roof	4	14/06/2024 23:03	01:08.0	54	71	LF audible. Some customer noise audible.
Fire Exit + 2m	5	14/06/2024 23:36	01:02.0	58	72	Isolated. Traffic gone.
Fire Exit +2m	6	14/06/2024 23:40	01:02.0	58	73	Dominant MNL. No Passing Traffic.
R1 (Façade)	8	14/06/2024 23:46	01:01.0	54	71	Dominant MNL. No passing traffic.
R2 (Façade)	9	14/06/2024 23:49	01:06.0	50	65	Bass audible. Isolated MNL against passing traffic.
R3 (Façade)	10	14/06/2024 23:53	01:01.0	51	66	Barely audible bass at gf. Other community noise dominant.
R4 Car Park	11	14/06/2024 23:57	01:06.0	47	64	Barely audible. Bass only.
Courtyard (Lobby Doors Open)	12	15/06/2024 00:02	00:42.0	77	95	Held open briefly for measurement.
Courtyard (rear)	13	15/06/2024 01:00	01:01.0	72	76	Slightly elevated from before. Increase in customer noise. (+6dB)
R3 (Façade)	15	15/06/2024 01:11	01:01.0	50	72	After -40dB bass reduction. MNL to be indiscernible inside.

14-15/06/2024 Page Lounge FOH/ Dance Floor (Premises Open) Svantek 971a SN:121067. Calibrator SN:125825								
No.	Start date & time	LAeq (5 min) [dB]	LCeq (5 min) [dB]	40 Hz (1/3 Leq)	50 Hz (1/3 Leq)	63 Hz (1/3 Leq)	80 Hz (1/3 Leq)	Notes
1	14/06/2024 21:46:53	88	93	79	85	86	80	
2	14/06/2024 21:51:53	85	92	83	85	87	80	
3	14/06/2024 21:56:53	85	98	92	94	93	83	
4	14/06/2024 22:01:53	86	98	93	94	94	85	
5	14/06/2024 22:06:53	85	98	86	94	96	84	
6	14/06/2024 22:11:53	86	98	90	94	95	88	
7	14/06/2024 22:16:53	86	97	89	92	94	86	
8	14/06/2024 22:21:53	84	98	87	94	95	86	
9	14/06/2024 22:26:53	92	107	91	104	105	97	
10	14/06/2024 22:31:53	93	106	97	102	104	96	
11	14/06/2024 22:36:53	93	105	101	98	102	95	
12	14/06/2024 22:41:53	93	108	100	102	105	100	
13	14/06/2024 22:46:53	92	108	101	105	105	95	
14	14/06/2024 22:51:53	93	107	93	102	105	95	
15	14/06/2024 22:56:53	92	105	93	100	104	95	
16	14/06/2024 23:01:53	93	105	90	101	103	94	
17	14/06/2024 23:06:53	91	102	92	97	99	91	

18	14/06/2024 23:11:53	90	99	89	94	96	86	
19	14/06/2024 23:16:53	90	98	84	91	94	89	
20	14/06/2024 23:21:53	90	100	88	96	97	87	
21	14/06/2024 23:26:53	88	102	87	96	100	93	
22	14/06/2024 23:31:53	89	104	92	101	102	92	
23	14/06/2024 23:36:53	92	109	96	106	106	99	
24	14/06/2024 23:41:53	93	110	100	107	107	101	
25	14/06/2024 23:46:53	94	111	98	105	109	101	
26	14/06/2024 23:51:53	93	111	100	108	109	100	
27	14/06/2024 23:56:53	91	109	102	105	107	98	
28	15/06/2024 00:01:53	92	109	98	105	107	97	
29	15/06/2024 00:06:53	91	108	104	104	105	97	
30	15/06/2024 00:11:53	92	106	99	101	102	97	
31	15/06/2024 00:16:53	92	107	100	103	104	98	
32	15/06/2024 00:21:53	92	109	101	102	106	102	
33	15/06/2024 00:26:53	91	106	98	101	103	96	
34	15/06/2024 00:31:53	94	110	101	105	108	98	
35	15/06/2024 00:36:53	94	103	94	95	98	93	Reducing Bass on Venue Control Panel
36	15/06/2024 00:41:53	92	102	86	89	94	94	
37	15/06/2024 00:46:53	94	103	85	93	101	90	
38	15/06/2024 00:51:53	96	108	98	103	105	96	
39	15/06/2024 00:56:53	94	98	80	84	87	86	Bass reduction applied



- Winds that would impact measurement at positions were not observed.
- Cloud cover estimate 50-100%.
- Sudden heavy rain logged at 00:00 which lasted for approx. 15 minutes. Outside measurement was stopped.
- 67-92% humidity recorded during measurement period.
- °C, Winds m/s.
- Source www.timeanddate.com Past Weather.

Appendix G - Photographs



Figure 7 – R1



Figure 8- R2



Figure 9- R3



Figure 10- R4 (facing towards receptors further afield).



Figure 11- Dance Floor Measurement Position.



Figure 12- Acoustic lobby into the enclosed courtyard area. Operates on a push button and automatic sensor. Lobby is fully enclosed including the ceiling.



Figure 13- Inside the venue 14-15/06/2024 . Entertainment consisting of DJ, drums and vocals.



Figure 14 - Venue sound system management panel. Password protected. A bass reduction of -40dB was applied to achieve 90A/100C under these conditions in the venue.