

Project:	Social Eats Events - Cheltenham Race Course	Noise Management Assessment
Date:	08 August 2025	
Author:	Matt Trigg	Site Address: Cheltenham Race Course, GL50 4SH
Job Start Date:	30 Aug 25	Description: Single day family food & music festival
Duration:	12pm - 10pm (Expected)	
Client Contact:	Darren McClure	

Data Protection Statement

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1. Introduction

- 1.1. The proposed event is entertainment at the outdoor family orientated music and food festival event to be held at Cheltenham Race Course, Evesham Road, Cheltenham, GL50 4SH
- 1.2. The event is to begin around 12 noon, and finish by 10pm, Saturday 30th August 2025.
- 1.3. The purpose of this document is to provide an assessment of the noise impact of the event on existing nearby properties and to describe suitable sound control and monitoring scheme that could be put in place to minimise the music noise level disturbance. The practical measures to be adopted to achieve compliance are described in a later section.
- 1.4. The map below shows the event location and the nearest noise sensitive receptors located on Spring Lane and Southam Lane . The yellow pin notes the intended stage positioning, directed North-West along the event field. Identified noise sensitive locations detailed later in the document,



2. Entertainment Noise Control Criteria

- 2.1. The established guidance for noise from outdoor music events is the Noise Council's Code of Practice on Environmental Noise Control at Concerts (1995).
- 2.2. The recommended noise limits contained within the code of practice for events taking place between 09:00 – 23:00 can be seen in Table 1 below.

Concert Days per Calendar Year per Venue	Venue Category	Guideline (measured 1 meter from the façade of the nearest noise sensitive premises)
1-3	Urban stadia or arenas	The MNL should not exceed 75 dB(A) measured over 15 minutes
1-3	Other urban and rural venues	The MNL should not exceed 65 dB(A) measured over 15 minutes
4-12	All venues	The MNL should not exceed the background noise level by more than 15 dB(A) over a 15 minute period

- 2.3. The recommended noise control method contained within the Code of Practice for events held between the hours of 23:00 and 09:00 hours are:

Music noise should not be audible within noise sensitive premises with windows open in a typical manner for ventilation. Control can be exercised in this situation by limiting the music noise so that it is just audible outside the noise sensitive premises. When that is achieved it can be assumed that the music noise is not audible inside the noise sensitive premises

- 2.4. The Code of Practice recognises that noise in terms of dB(A) may underestimate the intrusiveness of low frequency noise and concludes that it may be necessary to set an additional criterion in terms of low frequency noise or apply additional controls.

IOA Technical Paper: Proc IOA Vol. 28 Pt. 7 2006; Griffiths & Staunton

- 2.5. This paper gives further clarification on the Code of Practice's recommendations on noise from events regarding night time noise and low frequency limits.
- 2.6. The conclusions of the research regarding night time noise state that:

The absolute criterion of 45dB(A) outside premises is sufficient to achieve the World Health Organisation's internal L(A)eq guidance level of 30dB to preserve the restorative process of sleep.

The onset of noise complaints at all night music events closely correlates to the transgression of the 45dB level outside noise sensitive premises.

Many events and authorities have successfully adopted the 45dB night time noise limit. The use of this objective criterion is therefore recommended for further consideration when dealing with an infrequent all night event.

- 2.7. Subsequently, the noise from the proposed event should be adequately controlled by the provision of condition based on 45 dB(A) at the façade of the nearest noise sensitive premises after 23:00.
- 2.8. The conclusions of the research regarding Low Frequency Noise state that:

At open air venues, the increase over background 'A' weighted criterion works well at minimising complaints near to venue. The 'A' weighted criterion can underestimate annoyance a greater distances from the venue (in excess of 2km) as the mid to high frequency energy is quickly attenuated with respect to low frequency and the expectation of people living some distance from the event being that the concert should be inaudible.

- 2.9. Subsequently, the noise from the proposed event should adequately be controlled by the provision of condition based on an A-weighted LAeq.

3. Noise Assessment Criteria

- 3.1. The guidance from the Code of Practice advises that for other urban or rural areas used for more than 12 events per calendar year, a Music Noise Level of 15dB 15min LAeq over the measured Background Level at the nearest noise sensitive premises is recommended for events finishing no later than 23:00.
- 3.2. An onsite front-of-house mix position has been assumed to be situated 40m in front of the stage front edge.
- 3.3. An ambient noise consultant will be employed on Saturday 30th August to manage the ambient noise created by the event.
- 3.4. Background noise measurements will be taken on the morning of the event to determine the current off site background noise levels and recorded at the identified noise sensitive locations by the Noise Consultant.
- 3.5. They will then be required to monitor the Music Noise Levels during sound checks to gain a baseline as to what internal levels will achieve at the specified noise sensitive locations.
- 3.6. The noise consultant will move between the agreed locations taking 15 minute LAeq readings, reporting these levels to the event FOH sound engineers by way of mobile phones / WhatsApp group.
- 3.7. Using a predicted background noise level at the nearest noise sensitive locations of 50db 15min LAeq, an offsite generated noise level of not more than 65dB(A) will be achieved with worst case conditions with a monitored Front-of-house level of 100.8db(A) 15minute LAeq and is therefore within the guidance of the Code of Practice on Environmental Noise Control at Concerts.
- 3.8. The guidance from the IOA technical paper in quantifying the Code of Practice's criterion for events running between 23:00 and 09:00 recommends Music Noise Level of 45dB(A) over a fifteen-minute period at the nearest noise sensitive premises is sufficient to prevent nuisance. This condition will be met by no Music Noise being caused after the licence curfew of 23:00. Suggested event curfew of 22:00 to enable a small time buffer for unforeseen overrun and customer satisfaction.

4. Noise Predictions

- 4.1. Noise predictions have been made based on keeping with guidance at the nearest noise sensitive location.
- 4.2. The predictions have been made using manufacturer loudspeaker simulation software to accurately represent the loudspeaker systems to be deployed to ensure accurate SPL modelling data.
- 4.3. Noise predictions have been based upon a worst case scenario and the intended coverage of the sound system to the audience area.
- 4.4. Stage position and sound system design has been optimised at event design to provide greatest on-site to offsite differential.
- 4.5. Distance attenuation is based upon progressive attenuation under neutral meteorological conditions, clear line of sight with no physical barriers and can therefore be considered a worse case scenario. Real world values will have substantially more attenuation based on terrain and natural absorption barriers.
- 4.6. Maximum sound system output has been calculated based upon achieving 65dB 15min LAeq criteria 1m from the facade of the noise sensitive properties.
- 4.7. 100.8dbA Front-of-house onsite level predicts a 65dbA criterion at the nearest receptor.

fig.1 Site / Stage Layout:

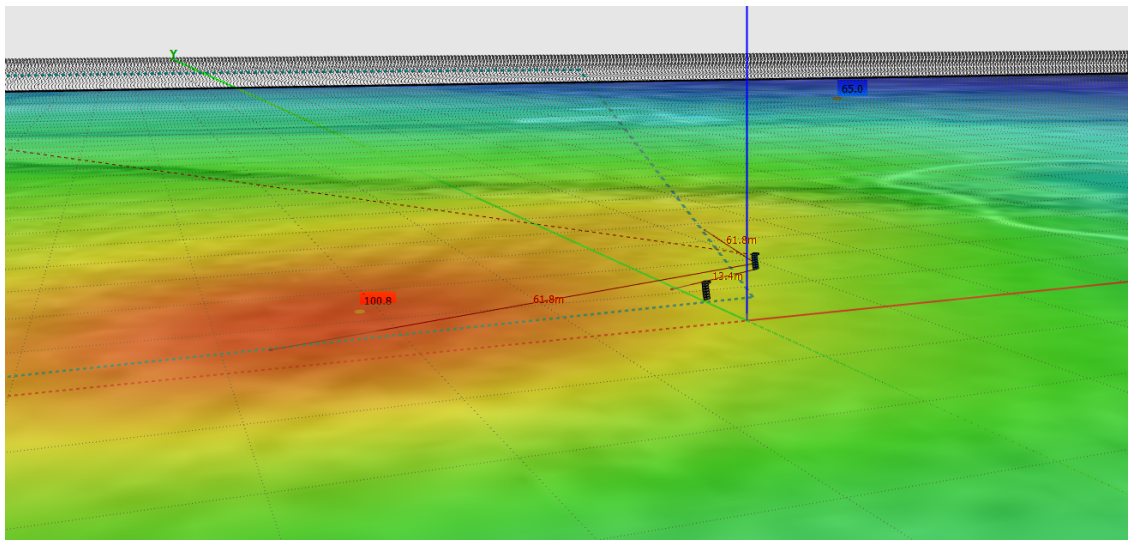


fig.2 Simulated system at maximum capable output:



5. Event Noise Management Guidance

- 5.1. Careful consideration will be given to implementing and exercising a noise control program during sound checks and the event to control entertainment noise from the venue. Soundcheck times outside of licenced hours to be kept to an absolute minimum, and as close to event opening times to minimise resident disruption.
- 5.2. A member of the event management team will be responsible for the management of noise during the event.
- 5.3. That member will have direct communication with all required parties through site radios and/or mobile phones. This will include, but not be limited to: The Event Director, The Noise Consultant, The FOH Sound Engineer.
- 5.4. Should the licence limits be at risk of breach at any of the noise sensitive locations, the consultant will request immediate action from the on-site sound engineers.
- 5.5. Should any noise complaints be received, the Noise Consultant will be notified and investigate the complaint so timely and suitable action can be taken. The Noise Consultant will use his or her expertise to advise on what action is necessary and to provide the most effective solution.
- 5.6. A complaints log will be maintained throughout the event, detailing names and addresses of complaints, times and actions taken by the organisers. All complaints will be taken seriously and investigated by the Noise Consultant. Issues that are backed by data will be remedied in a timely fashion, but perception and disruption by noise is highly subjective and the event being audible will not necessarily correlate with a breach of licence.

- 5.7. The organisers will advise the local Environmental Health Department of the likely times of any rehearsal or sound-checks, although this is unlikely to be known until near the production set-up.
- 5.8. The sound engineers present will be informed of the offsite music noise levels and immediate instructions will be issued if it appears that the limit may be exceeded at any point.
- 5.9. The Noise Consultant will use his or her expert opinion, and will usually aim to attenuate problematic frequencies as a primary measure of control first, before resorting to an overall onsite level reduction. This aims to control site specific or meteorological propagation anomalies on the day.
- 5.10. FOH sound level monitoring will be implemented to adhere to the outlined maximum levels: **98db 15min LAeq at 40m FOH control position**. Value agreed as to meet expectation of in person customers for this style of family oriented event, and maintain a ~3db offsite noise margin at all times but may be adjusted as per the Noise Consultants advise during the course of the event. This limit will be managed during the day with input from the off site Noise Consultant as to provide a reasonable increase in level towards a headline act during the event, and maintain the licence conditions.
- 5.11. Noise measurements outside of site will be taken on a rotating basis of the identified locations, as necessary and under the professional judgement of the Noise Consultant, in addition to in response to any complaints that may be received allowing for comfort breaks and welfare of the Noise Consultant.
- 5.12. Event programming suggested to finish at 22:00 to allow suitable safety margin to adhere to licence conditions and allow for minor timing fluctuation and error.
- 5.13. The Noise Consultant will at all times work in consultation with the Event Director and FOH sound engineer with their professional judgement and experience to ensure that responses are appropriate and measured, ensuring that the organisers comply with guidance and licence conditions as far as is reasonably practicable.

6. List of identified Noise Sensitive Locations

What3words location	Description
///locker.fats.blueberry	B4632
///loyal.mimic.repay	Southam Lane
///punk.drill.pots	Southam Lane
///shiny.badly.codes	Spring Lane
///smoke.aims.grow	Park Lane



6. This list is not exhaustive and may be modified based on the professional opinion of the Noise Consultant present, and in response to any objections, council guidance or received complaints on the day.

6. Glossary

- 6.1. Noise is defined as unwanted sound. The range of audible sound is from 0dB to 140dB, which is taken to be the threshold of pain. The sound pressure detected by the human ear covers an extremely wide range. The decibel (dB) is used to condense this range into a manageable scale by taking the logarithm of the ratio of the sound pressure and reference sound pressure.
- 6.2. The unit of frequency is Hz. 1 Hz is one pressure fluctuation in one second. The frequency response of the ear is usually taken to be about 16Hz (number of oscillations per second) to 18,000Hz. The ear does not respond equally to different frequencies at the same level. It is more sensitive in the mid---frequency range than at the lower and higher frequencies and because of this, the low and high frequency component of sound are reduced in importance by applying a-weighting (filtering) circuit to the noise measuring instrument. The weighting which is most used and which correlates best with the subjective response to noise is the dB(A) weighting. This electronic filter matches the variation in the frequency sensitivity of the meter to that of the human ear. This is an internationally accepted standard for noise measurements.
- 6.3. The ear can just distinguish difference in loudness between two noise sources when there is a 3dB(A) difference between them. Also when two sound sources of the same noise level are combined the resultant level is 3dB(A) higher than the single source. When two sounds differ by 10dB(A) one is said to be twice as loud as the other.
- 6.4. LAeq: Equivalent Continuous Sound Pressure Level. The A---weighted sound pressure level of steady sound that has, over a given period, the same energy as the fluctuating sound under investigation. It is in effect the energy average level over the specified measurement period (T) and is the most widely used indicator for environmental noise.
- 6.5. Ambient Noise Level - The 'normal' sound level at a given location, measured in terms of LAeq when no event propagation is taking place.
- 6.6. LAeq - The A-weighted equivalent continuous sound level in decibels measured over a stated period of time, usually 15 minutes.