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Ibiza Orchestra Experience and Sausage and Cider Festival – Cambridge 2024

Sound Control Post-Event Report

Live Tour Promotions Limited

Revision 0

16 August 2024

Role	Name	Position	Signature	Date
Author	Rupert Burton BSc (Hons) MIOA	Director		16/08/2024
Reviewer	Robert Miller BSc (Hons) MIOA	Director		16/08/2024

Revision	Date	Reason
0	16/08/2024	Issue.

F1 Acoustics Company Limited, company number: 8113982 (England and Wales).
Registered address: Eagle House, Cranleigh Close, South Croydon, Surrey, England, CR2 9LH.

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1 Introduction

1.1 Appointment

1.1.1 F1 Acoustics Company Limited (F1AC) was appointed by Live Tour Promotions Limited (LTPL) to provide sound control and management for the Ibiza Orchestra Experience and Sausage and Cider Festival events held on Friday 2nd August and Saturday 3rd August 2024 at Cambridge Rugby Club, Ellgia Fields, Granchester Road, Cambridge, CB3 9ED.

1.1.2 This report details the music noise level (MNL) criteria proposed in the Noise Management Plan (NMP); a summary of the on-site and off-site noise levels measured throughout the event; actions taken as a result of the measurements; complaints received; complaint investigation measurements; and any actions taken as a result of complaint investigation.

1.2 About F1 Acoustics Company Limited

1.2.1 F1AC are specialists in event and festival sound control and have provided services for festivals including Glastonbury, Boomtown, Southwest Four, Leeds, Latitude and GALA Festival plus numerous other single stage and multi-stage events across the UK. We have a combined experience of over 30 years providing high quality sound control services and all of our Consultants are Members of the Institute of Acoustics. As well as entertainment sound control the company deals with the whole range of acoustics and noise issues and our staff have presented expert testimony at planning and licencing hearings as well as being accustomed to liaising with Local Authority Officers regarding noise issues.

1.2.2 A glossary of acoustic terms is provided in Appendix A to assist the reader.

2 Off-site Music Noise Level Limits

2.1.1 The off-site MNL limits are discussed in detail in the NMP and are reproduced in Table 2.1 below.

Table 2.1: Target Music Noise Level Limits

Location	Daytime 14:00 to 23:00
	Broadband $L_{Aeq,T}$, dB
Noise monitoring location representative of a noise sensitive premises (free-field)	65 (T = 15 min)

3 Site, Environs and Details of the Event

3.1 Site Location

3.1.1 The event site is located at Cambridge Rugby Club, Ellgia Fields, Grantchester Road, Cambridge, CB3 9ED on the outskirts of Cambridge.

3.1.2 The character of the event site and surrounding area is semi-rural and suburban with the noise environment including road traffic noise from the M11, A603 and surrounding local roads.

3.1.3 The nearest noise sensitive premises to the event site are located on Fulbrook Road and Selwyn Road to the north and Millington Road and South Green Road to the east.

3.1.4 A plan showing the event site location and surrounding area is included as Figure 1.

3.2 Ibiza Orchestra Experience and Sausage and Cider Festival, Cambridge 2024

3.2.1 The Ibiza Orchestra Experience event was held on Friday 2nd August 2024 from 18:00 to 23:00; and the Sausage and Cider Festival will be held on Saturday 3rd August 2024 from 14:00 to 23:00.

3.2.2 A plan showing the site layout including the location and orientation of the stage is included as Figure 2.

4 Measured Noise Levels

4.1 Equipment

4.1.1 Off-site noise levels were measured with a Rion NL-52 (F1AC-069) Class 1 sound level meter (SLM) with third-octave frequency band measurement capability. The SLM was checked for calibration with a Rion NC-75 (F1AC-070) Class 1 calibrator, at the beginning and end of the monitoring period. No significant deviation of the calibration level was observed.

4.1.2 The MNL at the Main Stage front of house position were continuously monitored using an NTi Audio XL2 (F1AC-022) Class 2 sound level SLM. The SLM was connected to Noise Network: LIVE a real-time visual display enabling the sound engineer to actively monitor the stage noise levels.

4.2 Staffing

4.2.1 The event sound control including the off-site noise monitoring was carried out by James Claydon an experienced and qualified sound control consultant.

4.3 On-site Measurements

4.3.1 The MNL were monitored at the stage throughout the event. The results of the on-site MNL monitoring are presented in Appendix B.

4.4 Off-site Measurements

4.4.1 Off-site measurements of the MNL were made at the monitoring positions proposed in the NMP throughout the event. A plan showing the noise monitoring positions is included as Figure 1.

4.4.2 The off-site MNL measurements and observations for the two event days are provided in Appendix C.

Friday 2nd August 2024

4.4.3 The meteorological conditions during the event on Friday 2nd August 2024 were fair with no periods of precipitation. There was a westerly wind and temperatures of 18 to 26 °C.

4.4.4 The measurements for Friday 2nd August 2024 show that the measured noise levels at the monitoring positions were below the MNL limits set in the NMP.

Saturday 3rd August 2024

4.4.5 The meteorological conditions during the event on Saturday 3rd August 2024 were fair and partly cloudy at times with no periods of precipitation. There was a westerly and north-westerly wind from and temperatures of 15 to 23 °C.

4.4.6 The measurements for Saturday 3rd August 2024 show that the measured noise levels at the monitoring positions were below the MNL limits set in the NMP.

5 Complaints

5.1.1 There were no complaints registered via the community hotline during the event and at the time of writing F1 Acoustics has not been made aware of any complaints received post event.

Figures

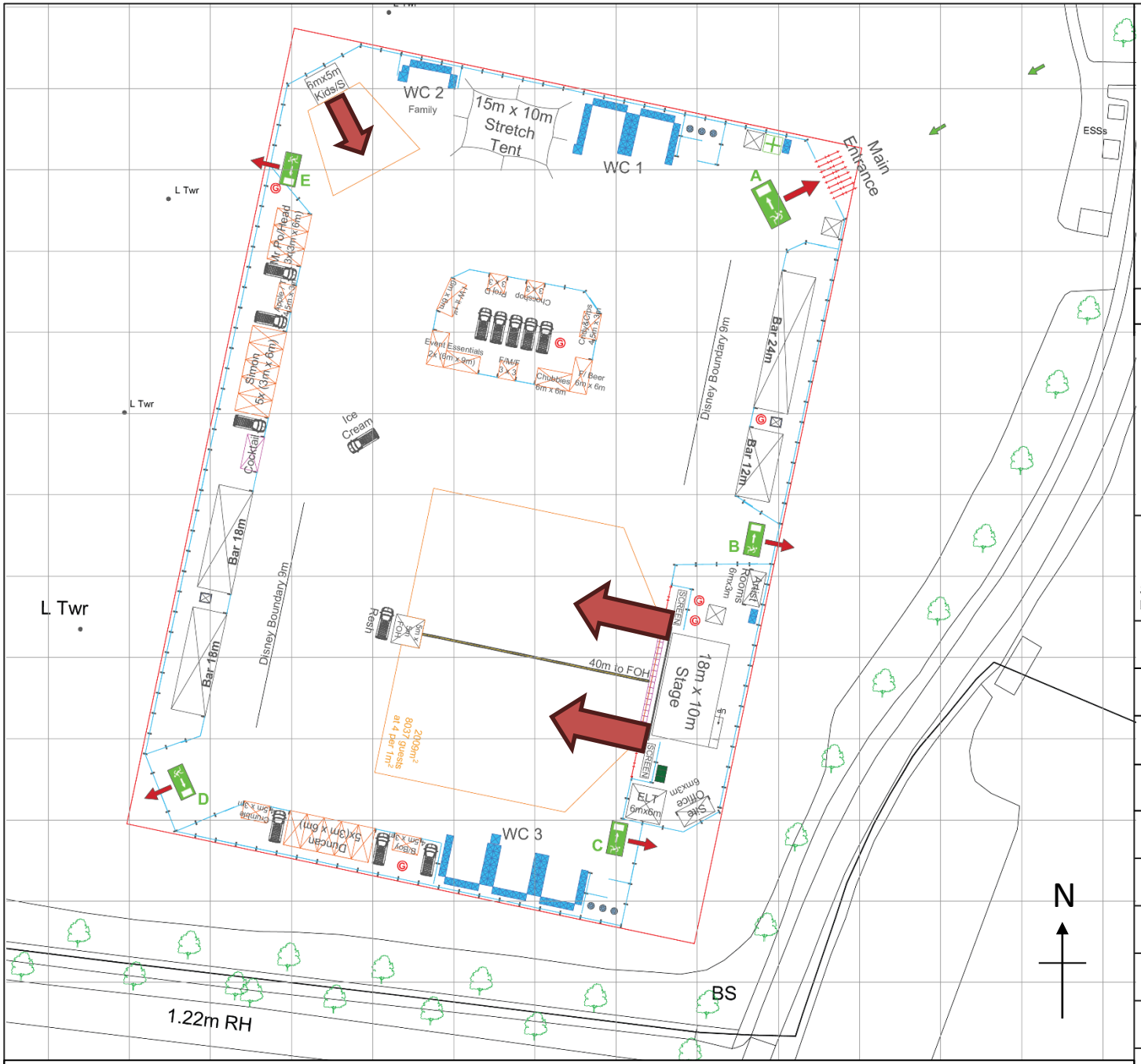
Music Noise Monitoring Positions

MP1 – Rear of properties on Fulbrooke Road
MP2 – Milington Road / Kings Road
MP3 – Broadway, Grantchester

REV	DATE	D	R	DESCRIPTION
0	16/08/2024	RB	RM	Issue

F1:Acoustics
38 Briton Hill Road, South Croydon, Surrey, CR2 0JL
info@f1acoustics.com ☎ +44 1227 770 890 f1acoustics.com

PROJECT:	Ibiza Orchestra Experience and Sausage & Cider Festival - Cambridge 2024 – PER
CLIENT:	Live Tour Promotions Limited
TITLE:	Site Location and Nearest Noise Sensitive Receptors
DATE:	16/08/2024
REVISION:	0
SCALE:	Scale as shown.
DRAWING NO:	1957/LTP-Cambridge2024-PER/1/0
FIGURE NO:	1
DRAWN BY:	Rupert Burton
REVIEWED BY:	Robert Miller



Legend

Sound system location and direction

REV	DATE	D	R	DESCRIPTION
0	16/08/2024	RB	RM	Issue

F1:Acoustics
38 Briton Hill Road, South Croydon, Surrey, CR2 0JL
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PROJECT:	Ibiza Orchestra Experience and Sausage & Cider Festival - Cambridge 2024 – PER
CLIENT:	Live Tour Promotions Limited
TITLE:	Site Plan
DATE:	16/08/2024
REVISION:	0
SCALE:	Not to scale.
DRAWING NO:	1957/LTP-Cambridge2024-PER/2/0
FIGURE NO:	2
DRAWN BY:	Rupert Burton
REVIEWED BY:	Robert Miller

Appendices

Appendix A

Glossary of Acoustic Terms

Noise is defined as unwanted sound. The range of audible sound is from 0 dB to 140 dB. The frequency response of the ear is usually taken to be about 18 Hz (number of oscillations per second) to 18,000 Hz. 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 a 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 human subjective response to noise is the A-weighting. This is an internationally accepted standard for noise measurements.

The ear can just distinguish a difference in loudness between two noise sources when there is a 3 dB difference between them. Also, when two sound sources of the same noise level are combined the resultant level is 3 dB higher than the single source. When two sounds differ by 10 dB one is said to be twice as loud as the other.

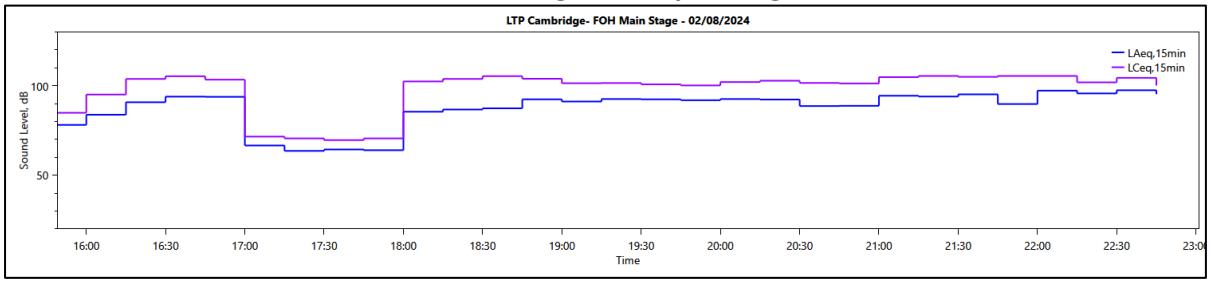
The subjective response to a noise is dependent not only upon the sound pressure level and its frequency, but also its intermittency. Various indices have been developed to try and correlate annoyances with the noise level and its fluctuations. The indices and parameters used in this report are defined below:

- **Background Noise Level** – The prevailing sound level at a location, measured in terms of the $L_{A90,T}$, on an equivalent day and at an equivalent time when no concert or sound checks are taking place.
- **dB(A)** – The A-weighted sound pressure level whereby various frequency components of sound are weighted (equalized) to reflect the way the human ear responds to different frequencies.
- **L_{Aeq}** – The equivalent continuous sound pressure level which at a given location over a given period of time contains the same A-weighted sound pressure level of a steady sound that has the same energy as the fluctuating sound under investigation.
- **$L_{AN,T}$** – The A-weighted sound level exceeded for N% of the measurement period (T).
- **Music Noise Level (MNL)** – The L_{Aeq} of the music noise measured at a particular location.
- **Noise Consultant** – A person given responsibility by the organiser of the event for monitoring noise levels in accordance with the prevailing conditions, and who has the ability and authority to make decisions and implement changes in noise level during the event.

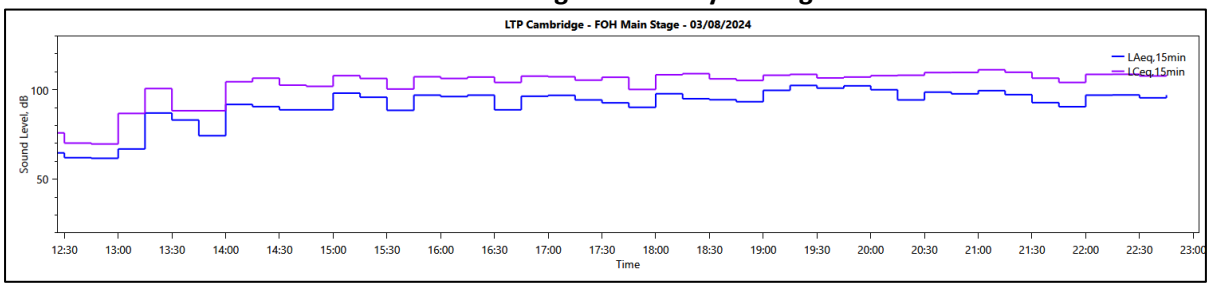
Appendix B

On-site Music Noise Level Monitoring Results

Measured Music Noise Levels at the Main Stage – Friday 2nd August 2024



Measured Music Noise Levels at the Main Stage – Saturday 3rd August 2024



Appendix C

Off-site Music Noise Level Monitoring Results

Table C.1: Attended Off-site Music Noise Level Measurements Friday 2nd August 2024

Start Time	Location	Duration (T)	Broadband $L_{Aeq,T}$, dB	Broadband $L_{Ceq,T}$, dB	Third Octave Band $L_{Zeq,T}$, dB					Aural Observations	
					40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	Music Noise and Actions	Environmental Noise
16:20	MP3 – Broadway, Grantchester	00:05:29	50.4	60.5	51.9	50.6	44.8	39.3	39.2	Music not audible. (music rehearsal on main stage)	Other noise sources included road traffic (dominant).
16:40	MP2 – Milington Road / Kings Road	00:05:00	52.9	66.4	58.6	63.8	60.0	58.1	53.5	Music audible full range (music rehearsal on main stage).	Other noise sources included wind in the trees.
16:51	MP1 – Rear of properties on Fulbrooke Road	00:05:00	61.1	69.8	52.6	55.0	64.4	62.5	62.9	Music audible full range (music rehearsal on main stage).	Other noise sources included wind in the trees, car passing and people talking in car park.
18:21	MP1 – Rear of properties on Fulbrooke Road	00:05:00	53.2	67.7	55.5	63.9	61.2	61.6	58.9	Music audible full range.	Other noise sources included wind in the trees and people talking in carpark.
18:54	MP1 – Rear of properties on Fulbrooke Road	00:05:00	58.8	69.3	50.3	62.0	65.6	63.3	59.2	Music audible full range.	Other noise sources included wind in the trees and people talking in field.
19:10	MP3 – Broadway, Grantchester	00:05:00	51.2	61.0	55.7	54.3	53.0	48.0	47.4	Music not audible.	Other noise sources included wind in the trees, local passing traffic, distant road noise and birds tweeting.
19:25	MP3 – Broadway, Grantchester	00:05:00	55.5	68.7	51.3	64.5	64.0	63.0	56.7	Music audible full range.	Other noise sources included wind in the trees. Lady asking for directions paused out.
19:38	MP1 – Rear of properties on Fulbrooke Road	00:05:00	59.3	70.7	67.8	67.1	61.4	60.5	55.5	Music audible full range.	Other noise sources included wind in the trees and people talking in field.
20:14	MP1 – Rear of properties on Fulbrooke Road	00:05:00	60.3	69.4	59.7	63.1	66.2	59.9	57.0	Music audible full range plus MC.	Other noise sources included wind in the trees.
20:46	MP3 – Broadway, Grantchester	00:05:00	47.1	55.3	44.0	51.2	48.6	40.8	41.0	Music not audible.	Other noise sources included distant road noise and local passing traffic.
20:58	MP2 – Milington Road / Kings Road	00:05:00	55.8	67.6	58.6	60.5	63.9	61.5	55.9	Music and crowd chatter audible.	Other noise sources included distant helicopter and a car passing very close to sound level meter.
21:13	MP1 – Rear of properties on Fulbrooke Road	00:05:00	61.4	68.1	50.4	58.6	64.9	59.4	55.2	Music audible full range.	Other noise sources included distant road noise and people chatting in park.
21:44	MP1 – Rear of properties on Fulbrooke Road	00:05:00	57.3	67.9	61.7	62.4	62.5	59.0	57.8	Music audible full range.	Other noise sources included a high aeroplane and a car driving past meter in carpark.
22:05	MP3 – Broadway, Grantchester	00:05:00	50.9	59.9	53.5	57.2	48.7	46.9	48.8	Music not audible.	Other noise sources included local traffic (dominant) and distant road traffic (just audible).
22:19	MP2 – Milington Road / Kings Road	00:05:00	57.8	66.3	53.2	58.8	62.7	59.5	53.6	Music audible full range and crowd cheering.	Other noise sources included a drone in nearby field.
22:37	MP1 – Rear of properties on Fulbrooke Road	00:15:00	64.2	68.1	58.1	58.3	60.2	56.1	55.6	Music and crowd cheering audible.	Other noise sources included lots of people chatting in carpark. Group shouting while walking past meter paused out.

Table C.2: Attended Off-site Music Noise Level Measurements Saturday 3rd August 2024

Start Time	Location	Duration (T)	Broadband $L_{Aeq,T}$, dB	Broadband $L_{Ceq,T}$, dB	Third Octave Band $L_{Zeq,T}$, dB					Aural Observations	
					40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	Music Noise and Actions	Environmental Noise
14:08	MP3 – Broadway, Grantchester	00:05:00	51.8	62.9	55.0	59.1	57.2	47.3	46.7	Music intermittently barely audible.	Other noise sources included local road traffic, wind in the trees and low flying vintage aeroplane.
14:22	MP2 – Milington Road / Kings Road	00:05:00	53.1	71.0	53.4	61.7	63.9	69.4	58.8	Music audible.	Other noise sources included wind in the trees and kids playing in garden nearby.
14:39	MP1 – Rear of properties on Fulbrooke Road	00:05:00	53.1	64.3	51.0	56.6	57.6	54.0	58.3	Music audible.	Other noise sources included low vintage aeroplanes and cyclists on gravel.
15:10	MP1 – Rear of properties on Fulbrooke Road	00:05:00	55.1	69.0	55.7	62.0	62.5	59.3	63.5	Music audible full range.	Other noise sources included low vintage aeroplanes, cyclists and people on gravel and wind in the trees.
16:01	MP3 – Broadway, Grantchester	00:05:00	49.1	59.3	50.3	53.9	52.1	44.5	43.0	Bass intermittently barely audible.	Other noise sources included local passing traffic, birds and distant aeroplanes.
16:16	MP2 – Milington Road / Kings Road	00:05:00	55.6	66.9	52.0	60.7	61.8	61.3	53.8	Music audible, crowd cheering.	Other noise sources included wind in the trees and birds.
17:00	MP1 – Rear of properties on Fulbrooke Road	00:05:00	55.9	70.2	61.4	62.5	64.9	60.9	64.7	Music audible full range.	Other noise sources included wind in the trees, birds, couple talking walking past and distant motorcycle.
17:38	MP3 – Broadway, Grantchester	00:05:00	49.0	55.5	48.5	49.8	42.4	38.2	37.9	Music intermittently barely audible.	Other noise sources included distant road traffic, local passing traffic, wind in the trees and birds.
18:06	MP2 – Milington Road / Kings Road	00:05:00	57.3	68.0	54.6	61.9	61.7	63.0	55.5	Music audible full range.	Other noise sources included wind in the trees.
18:34	MP1 – Rear of properties on Fulbrooke Road	00:05:00	57.5	69.5	53.9	61.8	66.3	60.8	61.2	Music audible full range.	Other noise sources included wind in the trees, birds and child shouting.
19:25	MP1 – Rear of properties on Fulbrooke Road	00:05:00	62.5	69.4	63.1	63.9	62.1	57.4	55.5	Music audible full range.	Other noise sources included wind in the trees.
19:43	MP3 – Broadway, Grantchester	00:05:00	54.7	57.9	49.4	47.9	41.1	40.0	38.9	Music audible.	Other noise sources included birds and passing car.
20:37	MP1 – Rear of properties on Fulbrooke Road	00:05:00	60.6	69.6	60.4	60.6	64.3	61.0	63.1	Music audible.	Other noise sources included cyclists on gravel and people talking nearby.
20:57	MP3 – Broadway, Grantchester	00:05:00	54.0	61.0	50.1	52.4	51.3	47.0	50.2	Music audible.	Other noise sources included birds tweeting and local traffic.
21:11	MP2 – Milington Road / Kings Road	00:05:00	57.3	70.9	60.4	65.8	65.4	66.5	59.4	Music audible.	Other noise sources included cyclist riding past and birds tweeting.
21:43	MP1 – Rear of properties on Fulbrooke Road	00:05:00	60.4	64.2	52.1	56.2	57.5	54.6	54.4	Music audible full range.	Other noise sources included lots of groups of people talking and cyclists.
22:08	MP3 – Broadway, Grantchester	00:05:00	51.5	59.8	50.2	49.1	46.7	47.9	52.3	Music audible.	Other noise sources included local passing traffic and public talking nearby.
22:24	MP2 – Milington Road / Kings Road	00:05:00	52.6	67.7	53.6	63.1	63.7	61.5	57.0	Music audible full range.	Other noise sources included distant road noise and groups of people talking/shouting in distance.
22:43	MP1 – Rear of properties on Fulbrooke Road	00:15:00	61.7	69.5	56.2	59.6	62.9	59.2	63.1	Music audible full range.	Other noise sources included lots of groups of people talking and cyclists on gravel.