The Steadings, Cirencester

Construction Noise Monitoring Report

November 2024

03 December 2024

Client:

Bathurst Development Limited,
The Bathurst Estate,
Cirencester Park,
Cirencester,
Gloucestershire,
GL7 2BU

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Role	Name	Signature	Date
Preparation	Harry Gee Assistant Consultant BEng(Hons)		03/12/24
Approval	Paul Gray Director BSc(Hons), MIOA		03/12/24

For Information

Please Note
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Contents

1.0 INTRODUCTION

1.1 Planning Outline planning permission for a new residential development to be known as "The Steadings" was granted by Cotswold District Council (CDC) on 3 April 2019 (CDC planning ref. 16/00054/OUT). The permission included a planning condition (Condition 44) requiring that, prior to development taking place on each phase, a Construction Management Plan (CMP) is submitted to and approved by the LPA. The requirements for the CMP included a requirement for noise mitigation measures.

1.2 A CMP in relation to works related to Parcels 2a, 2b & 2c (including the primary enhanced street east Section 38 works and associated drainage & earthworks; and the public open space (POS) landscaping) was submitted to the councils and the discharge of Condition 44 in relation to the proposed works confirmed by the LPA's decision notice dated 26 January 2024 (CDC planning ref. 23/00458/COMPLY).

1.3 The CMP included a *"Noise and Vibration Management Plan"* (NVMP) prepared by Quantum Acoustics Limited. This plan outlined the way in which noise and vibration associated with the proposed works would be managed and controlled.

1.4 In addition to providing general guidance on working methodologies and management controls, the NVMP set out a regime of noise monitoring that would enable noise levels associated with the construction activities to be pro-actively monitored and enable appropriate mitigation or abatement actions to be taken if noise levels exceeded a set of prescribed noise level trigger thresholds.

1.5 The proposed monitoring regime included the installation of two fully automated noise monitoring stations. These monitoring stations were installed on 24 and 31 January 2024 and have been fully operational since these dates.

1.6 In addition to the automated monitoring systems, the NVMP also proposed monthly attended site visits, during which additional attended measurements would be undertaken at five additional receptor locations around the boundaries of the wider consent site. The purpose of these measurements is to assist in identifying any potential for adverse noise impacts to off-site receptors. This responded directly to concerns raised by the LPA during the consultation period for the determination of Condition 44.

1.7 Bathurst Development Limited has instructed Quantum Acoustics Limited to manage the installed automated noise monitoring equipment and undertake attended noise monitoring and reporting.

1.8 This report presents the results of the automated noise monitoring for the period from 1 November to 30 November 2024 and the results of attended noise monitoring undertaken on 29 November 2024.

1.9 The report has been prepared by Quantum Monitoring, a specialist compliance monitoring team within Quantum Acoustics Limited.

1.10 An explanation of the acoustic terminology used in this report is set out below:

- dB
  Sound is measured in a logarithmic unit known as "decibels". This is written in short-hand as "dB".

- A-Weighting
  The human ear is typically more sensitive to sound in towards the middle of the audible range and less sensitive to lower and higher and frequencies. In order to take account of these differences, a frequency weighting is often applied to the sound measurement which adjusts the measurement value to reflect the way the human ear will perceive the sound. The use of "A-weighting" therefore gives a measure of subjective "loudness". A-weighted sound levels are expressed in dB(A).

- L_{eq}
  This is the level of a notional continuous sound that would deliver the same sound energy as the actual fluctuating sound over the measurement period. This may be thought of as the "average" level during the measurement period. The A-weighted value over time period (T) is written as $L_{Aeq,T}$.

- L_{max}
  This is the maximum noise level during the measurement period. For environmental noise purposes, L_{max} values are normally measured with a "fast" time response. The A-weighted value is then reported as $L_{Amax,fast}$.

- L_{90}
  This is the noise levels that is exceeded for 90% of the measurement period. It reflects the quiet periods during that time and is often referred to as the "background noise level". The A-weighted value over time period (T) is written as $L_{A90,T}$.

- L_{10}
  This is the noise levels that is exceeded for 10% of the measurement period. It typically provides a measured of the human response to traffic noise. The A-weighted value over time period (T) is written as $L_{A10,T}$.

2.0 AUTOMATED NOISE MONITORING

Monitoring Locations

2.1. Automated noise monitoring equipment has been installed at two locations on the northern boundary of the site as shown in Figure 2.1 below.

Figure 2.1: Automated Noise Monitoring Locations

Position	Co-ordinates	
	Easting	Northing
1	402344.172	200286.273
2	402129.951	200353.453

2.2. The monitoring equipment at Position 1 was installed on 24 January 2024.

2.3. The monitoring equipment at Position 2 was installed on 31 January 2024.

2.4. The equipment is pole mounted and solar powered, as shown in Figure 2.2.

Figure 2.2: Automated Monitoring Equipment Installed at Position 1 (Position 2 Identical)

Equipment Specification

2.5. The monitoring installation comprises a Type 1 (precision grade) sound level analyser conforming to BS EN 61672-1-2013. A full, detailed specification for the equipment is included at Appendix B of the NVMP approved by CDC permission 23/00458/COMPLY.

2.6. The equipment is fully autonomous and is solar powered with a rechargeable battery back-up supply. At the time of installation, the equipment was calibrated using a handheld acoustic calibrator (Rion Type NC-74, serial no. 34651766, conforming to BS EN 60942: 2003, Class 1) and the equipment is configured to automatically perform charge injection calibration each morning to verify the performance of the system.

2.7. The equipment is 4G enabled enabling data to be transmitted to a cloud-based storage and data viewing platform.

Equipment Configuration

2.8. Both noise monitoring stations are configured to monitor noise levels over sequential 15-minute periods ($L_{Aeq,15mins}$). The data is automatically uploaded to a web server to enable remote access by the Contractor/Client/Consultant. The equipment is also configured to provide high resolution logging of "fast" (0.125 second time constant) sound pressure levels; one third octave band frequency spectra and triggered audio recording when prescribed threshold conditions are met. These additional data assist the forensic analysis of measured noise levels in the event of queries or concerns.

Noise Limits

2.9. The noise limits approved by the CMP and NVMP are:

- On weekdays, noise level from *"Noisy Works"* on the site shall not exceed a daily level of 70dB $L_{Aeq,10hours}$;
- On Saturdays, noise levels from *"Noisy Works"* shall not exceed 60dB $L_{Aeq,1hour}$; and
- Outside "Permitted Hours" noise levels from activities within the site shall not exceed 50dB $L_{Aeq,1hour}$.

2.10. For the purpose of the above:

- *"Noisy "Works"* are defined as activities likely to generate a sound level greater than 50dB(A).

- *"Permitted Hours"* are defined as the periods of 08.00 to 18.00 hours Monday to Friday and 09.00 to 12.30 hours on Saturdays.
- No noisy works are permitted at any other time, including Sundays and Bank Holidays.

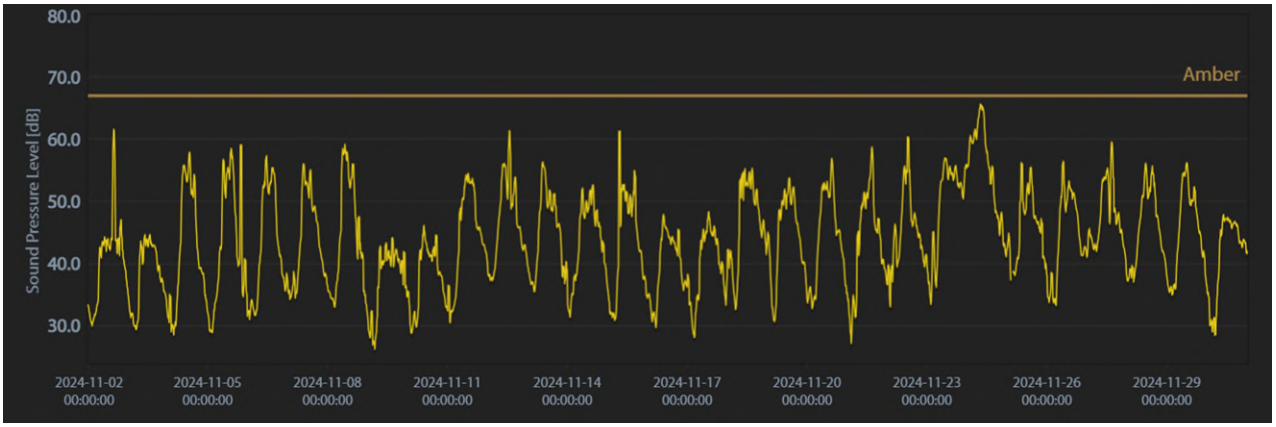
Alert Protocols

2.11. The approved NVMP identifies that the automated noise monitoring equipment will issue email "alerts" when certain threshold trigger values are meant. This is achieved by a combination of "AMBER" and "RED" alerts

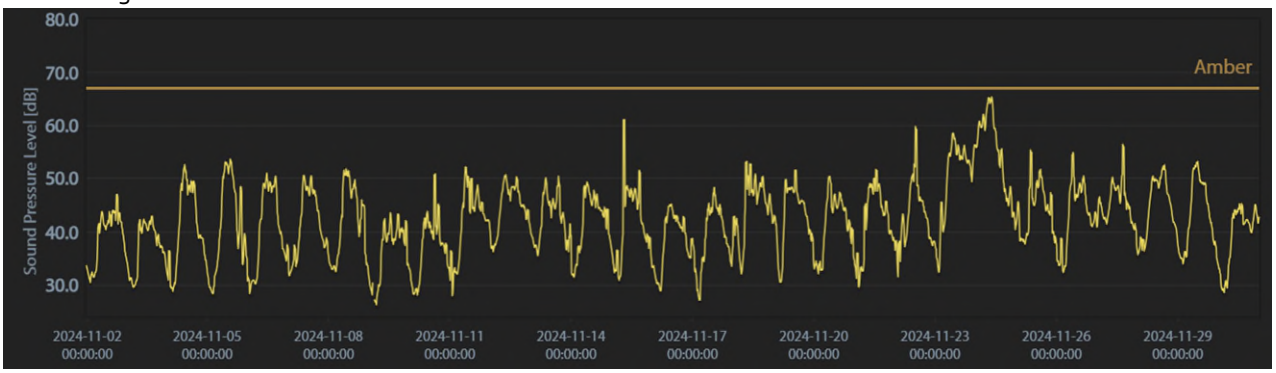
2.12. AMBER ALERTS are triggered when the $L_{Aeq,15mins}$ value exceeds a target level of 67dB $L_{Aeq,15mins}$ (Monday to Friday) and 57 dB $L_{Aeq,1\ hour}$ (Saturday) (during permitted hours).

Figure 2.3: Summary of Amber Alert Triggering

Monitoring Station 1



Monitoring Station 2

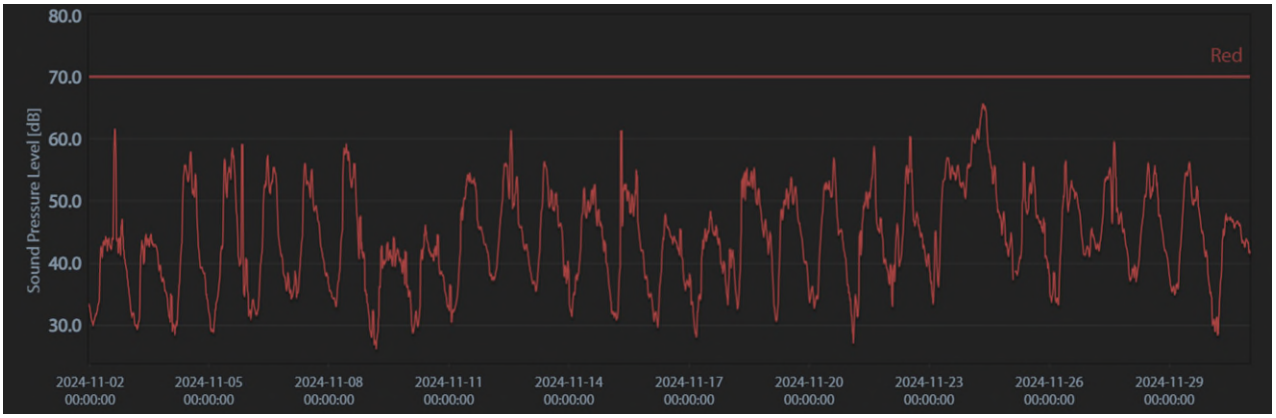


2.13. The above summary confirms that no amber alerts were triggered.

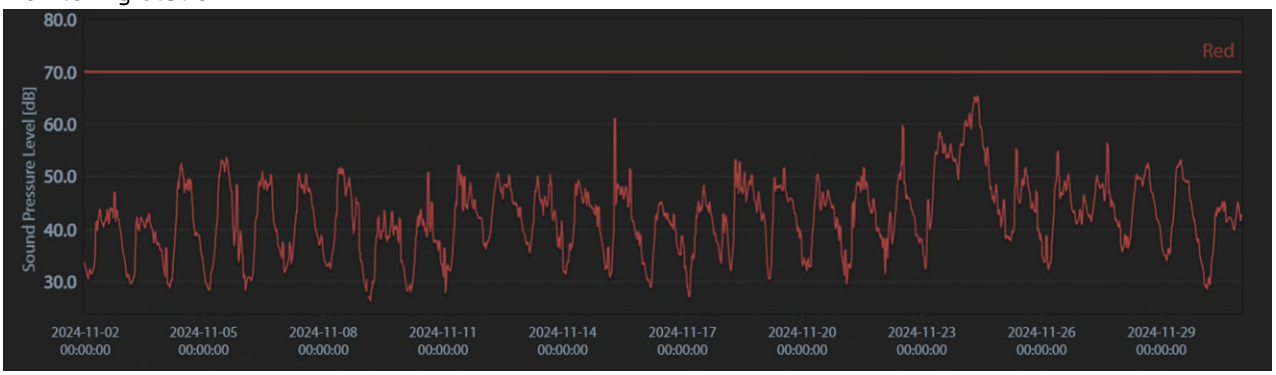
2.14. RED ALERTS are triggered when the $L_{Aeq,1\ hour}$ value exceeds a target level of 70dB $L_{Aeq,1hour}$ (Monday to Friday) and 60 dB $L_{Aeq,1\ hour}$ (Saturday) (during permitted hours).

Figure 2.4: Summary of Red Alert Triggering

Monitoring Station 1



Monitoring Station 2



2.15. The above summary confirms that no red alerts were triggered.

Contractor Response

2.16. On receipt of an amber alert the Contractor has been instructed to consider current working methods/activities to ensure that BPM are being effectively implemented and take any further action that may be practicable to reduce noise levels. The receipt of a number of repeated amber alerts represents an increased risk that the noise limits ($L_{Aeq,10hour}$ / $L_{Aeq,1hour}$) for the works will be exceeded.

2.17. On receipt of a red alert, the Contractor has been instructed to immediately cease the work in hand and review working methodologies. If it is concluded that no alternative options/noise mitigation for completing the work tasks are available, the Contractor shall liaise with the Local Authority and local residents/occupants to develop a programme for undertaking the works. If the duration of any "noisy" work is likely to be protracted, the programme should allow for "quiet" periods, to allow some respite from the works.

2.18. It is important to note that the issuance of an amber or red alert does not automatically mean that prescribed noise limits have been exceeded (particularly in the case of weekday values where the limit is prescribed over the full duration of the permitted operating hours). Similarly, the exceedance of a noise threshold, should not be taken to infer that a significant adverse impact, effect or nuisance has occurred. In practice, a significant exceedance (3-5dB(A) is routinely seen as changing the magnitude and significance of effect). Notwithstanding the use of noise monitoring provides a helpful and complementary means of identifying where additional attention should be focussed on particular activities having an increased level of noise generation, even following the implementation of the more fundamental management, process and engineering controls implemented by the Contractor / their Sub-Contractors.

Noise Monitoring Results

2.19. The detailed results from Monitoring Station 1 for the complete monitoring period are presented in Appendix A.

2.20. The results from Monitoring Station 2 are presented in Appendix B.

2.21. The data has been analysed to determine the measured $L_{Aeq,10\ hour}$ sound levels (for permitted weekday working hours) and $L_{Aeq,4.5\ hours}$ sound levels (for permitted Saturday working) hours. The worst case $L_{Aeq,15minute}$ sound levels (for permitted weekday and Saturday working hours) has also been assessed.

2.22. The results are presented in Tables 2.1 and 2.2 overleaf. The tables also conclude whether the measured comply with the noise limits set out in the approved CMP approved (and Noise and Vibration Management contained within).

Table 2.1: Measured Noise Levels: Monitoring Station 1

Date	Day of Week	Measured $L_{Aeq,10hour}$ (dB)	Worst Case Measured $L_{Aeq,1hour}$ (dB)	Compliance with Approved Noise Limit?
w/c 28 October 2024				
01/11/2024	Friday	51.9	56.7	✓
02/11/2024	Saturday	43.3	63.6	✓
w/c 04 November 2024				
04/11/2024	Monday	53.8	59.4	✓
05/11/2024	Tuesday	54.3	60.1	✓
06/11/2024	Wednesday	53.3	59.0	✓
07/11/2024	Thursday	52.2	57.5	✓
08/11/2024	Friday	55.4	60.7	✓
09/11/2024	Saturday	41.4	47.9	✓
w/c 11 November 2024				
11/11/2024	Monday	52.2	56.2	✓
12/11/2024	Tuesday	54.9	63.4	✓
13/11/2024	Wednesday	52.2	57.8	✓
14/11/2024	Thursday	49.9	55.3	✓
15/11/2024	Friday	51.0	59.3	✓
16/11/2024	Saturday	45.8	49.0	✓
w/c 18 November 2024				
18/11/2024	Monday	53.1	59.4	✓
19/11/2024	Tuesday	50.7	55.8	✓
20/11/2024	Wednesday	52.3	57.9	✓
21/11/2024	Thursday	52.5	60.6	✓
22/11/2024	Friday	53.6	65.2	✓
23/11/2024	Saturday	55.4	57.4	✓
w/c 25 November 2024				
25/11/2024	Monday	51.9	61.1	✓
26/11/2024	Tuesday	51.9	59.8	✓
27/11/2024	Wednesday	53.9	61.7	✓
28/11/2024	Thursday	52.7	57.2	✓
29/11/2024	Friday	52.7	57.0	✓
30/11/2024	Saturday	47.0	49.4	✓

Table 2.2: Measured Noise Levels: Monitoring Station 2

Date	Day of Week	Measured $L_{Aeq,10hour}$ (dB)	Worst Case Measured $L_{Aeq,1hour}$ (dB)	Compliance with Approved Noise Limit?
w/c 28 October 2024				
01/11/2024	Friday	46.4	54.1	✓
02/11/2024	Saturday	42.1	52.0	✓
w/c 04 November 2024				
04/11/2024	Monday	49.0	53.6	✓
05/11/2024	Tuesday	50.7	55.3	✓
06/11/2024	Wednesday	48.5	51.9	✓
07/11/2024	Thursday	48.1	53.3	✓
08/11/2024	Friday	49.1	53.8	✓
09/11/2024	Saturday	40.9	47.2	✓
w/c 11 November 2024				
11/11/2024	Monday	48.3	55.2	✓
12/11/2024	Tuesday	48.4	53.1	✓
13/11/2024	Wednesday	46.7	53.5	✓
14/11/2024	Thursday	46.5	50.9	✓
15/11/2024	Friday	47.4	54.2	✓
16/11/2024	Saturday	44.2	46.1	✓
w/c 18 November 2024				
18/11/2024	Monday	46.1	52.4	✓
19/11/2024	Tuesday	46.6	49.9	✓
20/11/2024	Wednesday	47.6	53.7	✓
21/11/2024	Thursday	47.8	52.1	✓
22/11/2024	Friday	47.3	53.4	✓
23/11/2024	Saturday	44.7	51.0	✓
w/c 25 November 2024				
25/11/2024	Monday	49.6	60.5	✓
26/11/2024	Tuesday	49.4	59.0	✓
27/11/2024	Wednesday	49.9	61.5	✓
28/11/2024	Thursday	50.1	53.2	✓
29/11/2024	Friday	50.3	54.8	✓
30/11/2024	Saturday	43.9	47.5	✓

2.23. There was full compliance with the agreed operational noise limits.

3.0 ATTENDED NOISE MONITORING

3.1. Noise measurements were made during a site attendance between 12:00 and 14:30 on 29 November 2024.

3.2. Noise levels were monitored at five locations (approved by the CMP), as shown in Figure 3.1 below:

Figure 3.1: Attended Noise Monitoring Locations

Position	Co-ordinates	
	Easting	Northing
A	401926.01	200521.2
B	401806.79	200367.19
C	402463.12	200151.81
D	402197.85	199947.19
E	401949.45	199938.57

3.3. Sample 15-minute measurements of the $L_{Aeq,T}$, $L_{Amax,fast}$, $L_{A10,T}$ and $L_{A90,T}$ noise metrics were made during a notional three-hour site attendance, in general accordance with ISO 1996-2: 2017: *"Acoustics - Description, measurement and assessment of environmental noise – Part 2: Determination of sound pressure levels"*.

Instrumentation

3.4. The instrumentation used for the survey is detailed in Table 3.1 below.

Table 3.1: Measurement Instrumentation

Equipment	Manufacturer	Type	Serial Number
Sound Level Meter	Svantek	SV971A	133608
Calibrator	Rion	NC74	34651766

3.5. The sound level analyser was calibrated prior to the survey and checked upon completion. No drift in calibration was observed.

3.6. All equipment is laboratory calibrated to traceable national standards. Calibration certificates are available on request.

Results

3.7. The following noise levels were measured:

Table 3.2: Noise Measurement Results

Measurement Location	Measured Sound Level, dB(A)				
	Time	$L_{Amax,fast}$	$L_{Aeq,15mins}$	$L_{A10,15mins}$	$L_{A90,15mins}$
A	13:57-14:11	71	46	48	43
B	13:22-13:36	65	47	48	42
C	12:10-12:25	69	54	56	49
D	12:46-12:51	59	45	47	43
E	12:55-13:10	58	44	46	40

Discussion

3.8. Noise levels observed at location A were predominately due to noise from a nearby gas installation and general environmental noise from the wider locality.

3.9. Noise levels observed at location B were influenced by nearby road traffic noise and birdsong.

3.10. Construction activities were audible at Position C, with measured noise levels also influenced by traffic noise from Spratsgate Lane.

3.11. Measured noise levels were influenced by distant construction noise, distant traffic noise, wildlife and corona noise from electricity pylons.

3.12. Distant construction related activity was audible, together with some noise from nearby electricity pylons.

Weather

3.13. Weather conditions were generally dry with light winds. The conditions were deemed suitable for the measurement of construction noise.

Conclusions

3.14. The results of the attended monitoring indicate that measured noise levels at all satellite measurement locations are acceptable and compatible with the approved construction noise limit approved by the CMP/NVMP. It is therefore reasonable to conclude that current construction activities are well managed and are unlikely to cause noise disturbance or justifiable complaint from any off-site noise sensitive receptors. This conclusion is further reinforced by the results of the automated noise monitoring stations which are in closer proximity to the works currently in hand and which also demonstrate full compliance with the approved noise limits. It is therefore concluded that no additional mitigation is deemed necessary at this time.

4.0 COMPLAINTS

4.1. In addition to the monitoring of noise levels, the approved CMP and Noise and Vibration Management Plan set out a protocol for dealing with any complaints relating to the potential environmental impacts of the construction works, including noise.

4.2. During the monitoring period covered by this report, no noise complaints were reported to Quantum Monitoring.

5.0 CONCLUSIONS

5.1. The results of the automated monitoring of construction noise for the period 1 November 2024 to 30 November 2024 are presented and assessed.

5.2. The measurement data shows no exceedances of the daily noise limit approved in the CMP/NVMP.

5.3. No "amber" and "red" alerts were triggered during the monitoring period.

5.4. The results of attended noise measurements are also presented. These conclude that noise levels measured at all satellite measurement locations are acceptable and in line with the approved construction noise target.

5.5. No formal complaints were reported to Quantum Monitoring during the monitoring period covered by this report.

5.6. It is therefore concluded that construction noise is being effectively managed and controlled in line with the CMP and Noise and Vibration Management Plan, safeguarding the amenity of the site's immediate residential neighbours to the north (monitored by the two automated noise monitoring stations) and to more distant off-site noise sensitive receptors.

5.7. The results of the monitoring do not indicate the need for any additional mitigation at this time.

Appendix A

Automated Noise Monitoring Results
Monitoring Station 1

The Steadings, Cirencester

Measurement Position 1

Week Commencing: 28 October 2024

quantum monitoring

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	28/10/2024	29/10/2024	30/10/2024	31/10/2024	01/11/2024	02/11/2024	03/11/2024
07:00	-	-	-	-	43.0	43.7	44.4
07:15	-	-	-	-	41.2	39.3	36.8
07:30	-	-	-	-	41.1	40.1	43.6
07:45	-	-	-	-	42.2	40.8	45.6
08:00	-	-	-	-	45.6	43.1	40.8
08:15	-	-	-	-	51.3	44.2	39.5
08:30	-	-	-	-	52.4	44.3	39.8
08:45	-	-	-	-	49.8	42.0	39.4
09:00	-	-	-	-	52.9	43.1	41.3
09:15	-	-	-	-	51.4	43.4	40.1
09:30	-	-	-	-	49.7	42.8	46.1
09:45	-	-	-	-	56.7	43.8	46.2
10:00	-	-	-	-	52.5	46.3	41.7
10:15	-	-	-	-	50.4	41.0	42.9
10:30	-	-	-	-	54.5	42.9	43.4
10:45	-	-	-	-	55.1	41.8	42.6
11:00	-	-	-	-	51.6	42.2	44.9
11:15	-	-	-	-	46.5	46.4	44.2
11:30	-	-	-	-	43.0	41.7	43.5
11:45	-	-	-	-	51.9	43.1	41.8
12:00	-	-	-	-	54.6	43.5	41.0
12:15	-	-	-	-	51.8	43.2	44.3
12:30	-	-	-	-	54.0	41.6	45.6
12:45	-	-	-	-	48.5	41.2	45.1
13:00	-	-	-	-	53.7	43.7	42.1
13:15	-	-	-	-	52.6	41.7	44.8
13:30	-	-	-	-	54.2	42.6	42.8
13:45	-	-	-	-	52.7	45.6	42.4
14:00	-	-	-	-	52.8	45.2	43.7
14:15	-	-	-	-	51.5	41.7	42.3
14:30	-	-	-	-	50.3	40.8	43.0
14:45	-	-	-	-	53.4	56.5	42.9
15:00	-	-	-	-	53.4	63.6	42.5
15:15	-	-	-	-	54.6	61.1	43.0
15:30	-	-	-	-	52.8	62.4	43.2
15:45	-	-	-	-	54.6	41.2	43.1
16:00	-	-	-	-	52.1	42.1	42.1
16:15	-	-	-	-	50.4	42.4	41.9
16:30	-	-	-	-	41.0	46.7	43.2
16:45	-	-	-	-	40.5	42.0	41.1
17:00	-	-	-	-	47.0	41.7	41.2
17:15	-	-	-	-	41.3	42.6	39.6
17:30	-	-	-	-	40.7	39.5	39.0
17:45	-	-	-	-	40.4	42.3	37.8
18:00	-	-	-	-	40.0	47.6	38.2
18:15	-	-	-	-	40.1	41.4	41.9
18:30	-	-	-	-	40.3	41.6	38.2
18:45	-	-	-	-	38.6	41.0	39.1
$L_{Aeq,10hour}$	-	-	-	-	51.9	43.3	n/a
Worst Case $L_{Aeq,15mins}$	-	-	-	-	56.7	63.6	46.2

Notes:

$L_{Aeq,10hour}$ Represents Energy Equivalent Level Between Weekday Permitted Hours of 08.00 to 18.00 hours

Worst case $L_{Aeq,15mins}$ Represents Highest Value During Permitted Hours of 08.00 to 18.00 hours (weekdays & Sunday) & 08.00 to 12.30 hours (Saturday)

The Steadings, Cirencester

Measurement Position 1

Week Commencing: 04 November 2024

quantum monitoring

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	04/11/2024	05/11/2024	06/11/2024	07/11/2024	08/11/2024	09/11/2024	10/11/2024
07:00	42.7	43.8	40.1	42.7	46.1	47.1	41.6
07:15	42.4	41.3	40.0	43.5	43.7	38.6	41.9
07:30	44.4	41.9	43.0	44.4	44.6	39.0	38.1
07:45	43.2	41.6	43.0	44.2	45.4	38.1	41.1
08:00	53.0	44.5	43.6	45.2	47.3	40.0	43.6
08:15	53.6	44.8	49.4	52.7	59.8	41.1	42.2
08:30	55.1	53.7	53.1	55.6	58.2	40.2	42.8
08:45	54.8	56.0	52.4	53.8	58.3	39.2	40.5
09:00	54.6	59.6	52.6	56.7	57.6	40.4	48.0
09:15	57.9	55.4	52.1	56.9	55.6	39.0	42.7
09:30	54.7	52.7	51.5	56.1	58.1	41.9	47.4
09:45	54.9	52.1	53.0	52.3	58.9	39.5	44.4
10:00	54.7	50.3	55.1	52.6	58.6	40.9	43.1
10:15	55.7	50.0	47.4	52.0	60.7	41.9	44.0
10:30	53.9	50.6	59.0	53.5	50.2	46.2	43.4
10:45	52.8	51.0	58.8	53.1	56.3	39.9	43.9
11:00	51.8	56.2	56.2	54.3	58.5	42.6	41.5
11:15	54.0	56.5	53.3	50.8	57.9	38.9	43.8
11:30	53.6	52.1	48.7	52.7	58.9	39.6	41.4
11:45	54.0	52.7	55.0	53.0	54.0	40.1	40.7
12:00	54.6	57.9	49.3	50.7	54.8	44.0	42.6
12:15	56.7	54.7	49.0	50.3	55.4	41.4	41.5
12:30	59.4	50.5	51.6	49.2	50.6	41.5	41.1
12:45	58.4	50.4	52.7	51.6	50.4	40.6	41.7
13:00	56.6	55.7	54.5	57.5	53.5	39.7	40.3
13:15	52.7	59.4	52.3	55.9	53.7	42.5	41.4
13:30	50.2	60.1	50.3	52.8	49.7	37.7	42.0
13:45	50.7	53.6	54.6	51.5	53.8	37.1	41.4
14:00	50.7	58.8	54.0	49.6	56.0	38.5	40.6
14:15	54.8	57.6	55.8	49.0	53.0	44.5	40.1
14:30	46.2	55.9	56.7	47.2	51.1	47.9	39.3
14:45	46.9	56.5	54.8	48.5	59.3	38.1	41.5
15:00	51.0	53.9	54.2	48.8	54.8	38.2	45.1
15:15	53.9	54.3	54.6	49.0	54.0	38.7	41.1
15:30	56.2	50.3	54.7	49.2	52.9	41.9	40.0
15:45	54.7	46.2	54.7	49.2	48.2	40.1	42.6
16:00	48.8	49.0	52.5	48.7	47.3	42.0	40.8
16:15	46.9	48.7	51.5	49.7	49.3	41.5	40.8
16:30	48.0	47.5	48.7	46.3	47.0	41.9	41.1
16:45	43.8	42.4	45.9	47.2	45.0	43.1	48.9
17:00	42.2	41.2	44.3	46.1	41.3	42.8	40.8
17:15	43.3	41.8	45.2	47.4	41.0	40.7	40.1
17:30	41.7	38.3	42.7	46.2	43.1	40.4	40.0
17:45	41.7	41.2	43.7	46.7	38.7	40.7	38.0
18:00	40.0	39.1	42.1	44.4	38.3	40.3	38.3
18:15	39.4	39.0	42.3	43.2	52.6	39.7	37.2
18:30	38.6	40.2	42.0	42.4	38.5	40.3	39.0
18:45	38.9	41.4	40.9	42.4	45.1	42.2	38.9
$L_{Aeq,10hour}$	53.8	54.3	53.3	52.2	55.4	41.4	n/a
Worst Case $L_{Aeq,15mins}$	59.4	60.1	59.0	57.5	60.7	47.9	48.9

Notes:

$L_{Aeq,10hour}$ Represents Energy Equivalent Level Between Weekday Permitted Hours of 08.00 to 18.00 hours

Worst case $L_{Aeq,15mins}$ Represents Highest Value During Permitted Hours of 08.00 to 18.00 hours (weekdays & Sunday) & 08.00 to 12.30 hours (Saturday)

The Steadings, Cirencester

Measurement Position 1

Week Commencing: 11 November 2024

quantum monitoring

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	11/11/2024	12/11/2024	13/11/2024	14/11/2024	15/11/2024	16/11/2024	17/11/2024
07:00	53.0	48.5	50.1	49.5	42.6	40.1	38.6
07:15	45.1	49.3	47.2	48.6	45.8	40.6	45.2
07:30	45.7	51.1	50.1	46.9	45.4	45.4	40.0
07:45	47.0	49.5	47.9	46.1	48.4	41.7	42.3
08:00	48.9	51.3	53.6	46.4	46.7	44.4	45.1
08:15	50.2	56.8	55.6	53.4	56.1	44.4	39.9
08:30	51.2	54.4	57.8	54.6	50.2	44.3	40.4
08:45	50.7	54.6	56.4	48.6	50.5	47.4	46.3
09:00	50.0	57.4	55.1	48.8	50.8	48.1	46.5
09:15	49.5	55.4	54.6	48.0	54.7	49.0	45.3
09:30	50.8	54.4	56.2	46.5	53.2	46.5	43.8
09:45	52.5	56.3	56.4	47.4	50.6	45.5	41.5
10:00	54.9	57.5	54.7	47.4	51.2	46.2	42.6
10:15	48.9	53.5	52.5	47.5	50.3	46.1	46.1
10:30	55.3	54.7	55.2	48.4	50.0	45.9	44.7
10:45	53.8	56.0	51.7	51.2	47.8	44.7	44.8
11:00	56.2	49.3	50.7	51.3	54.0	46.4	45.1
11:15	46.4	49.1	48.6	48.8	52.3	45.4	45.0
11:30	52.7	47.6	48.9	47.1	46.1	45.1	45.1
11:45	54.0	53.2	48.3	47.1	49.6	44.8	47.3
12:00	55.7	49.2	49.8	49.5	48.5	45.4	49.7
12:15	55.1	55.4	49.8	49.7	47.2	44.1	44.7
12:30	50.3	63.4	50.1	48.5	47.0	42.8	49.6
12:45	51.7	60.8	49.3	47.9	49.0	44.1	48.2
13:00	54.3	62.5	55.4	54.0	49.1	45.8	43.8
13:15	54.2	49.0	48.2	53.0	53.8	42.5	45.1
13:30	51.6	47.9	48.0	47.9	50.4	42.8	46.8
13:45	52.5	48.6	47.4	50.3	45.9	42.2	44.5
14:00	53.4	49.5	50.0	50.8	48.3	44.5	43.1
14:15	54.0	50.0	48.3	48.3	46.7	44.6	44.1
14:30	51.8	50.0	49.1	52.0	48.9	44.6	46.4
14:45	54.7	48.7	48.0	55.3	50.4	43.8	43.8
15:00	52.6	48.3	47.9	52.0	50.4	43.5	42.8
15:15	49.7	54.2	51.2	49.2	50.4	43.3	46.8
15:30	53.8	50.6	54.3	48.9	54.0	43.6	43.4
15:45	53.0	49.6	47.0	46.2	45.7	44.1	48.3
16:00	46.7	55.2	46.1	45.5	59.3	41.6	43.9
16:15	47.9	55.8	52.4	46.5	48.2	43.5	44.8
16:30	47.8	52.6	49.5	46.4	46.5	42.3	42.7
16:45	45.7	46.3	45.2	45.6	47.0	41.9	43.6
17:00	45.4	46.6	46.2	51.9	45.6	42.7	43.5
17:15	45.9	46.5	46.3	45.7	45.1	41.7	42.0
17:30	45.8	46.1	46.0	48.0	44.1	41.1	44.9
17:45	45.4	45.7	44.4	45.9	44.5	41.6	44.9
18:00	45.6	45.5	46.9	46.6	42.9	40.0	40.7
18:15	44.9	45.6	46.6	45.5	42.6	50.2	39.8
18:30	46.9	46.5	46.4	45.5	42.1	40.5	39.6
18:45	46.0	45.8	45.9	48.1	41.7	39.4	39.6
$L_{Aeq,10hour}$	52.2	54.9	52.2	49.9	51.0	45.8	n/a
Worst Case $L_{Aeq,15mins}$	56.2	63.4	57.8	55.3	59.3	49.0	49.7

Notes:

$L_{Aeq,10hour}$ Represents Energy Equivalent Level Between Weekday Permitted Hours of 08.00 to 18.00 hours

Worst case $L_{Aeq,15mins}$ Represents Highest Value During Permitted Hours of 08.00 to 18.00 hours (weekdays & Sunday) & 08.00 to 12.30 hours (Saturday)

The Steadings, Cirencester

Measurement Position 1

Week Commencing: 18 November 2024

quantum monitoring

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	18/11/2024	19/11/2024	20/11/2024	21/11/2024	22/11/2024	23/11/2024	24/11/2024
07:00	48.1	46.0	47.5	43.2	42.9	50.7	64.9
07:15	58.5	46.3	48.2	44.7	43.0	51.5	66.4
07:30	45.2	47.1	47.9	50.4	45.7	53.2	64.4
07:45	49.8	48.3	48.5	45.8	44.4	53.5	66.5
08:00	48.4	47.6	49.9	46.5	46.0	54.0	64.9
08:15	54.8	49.1	53.1	51.6	48.8	52.2	64.5
08:30	57.7	52.7	53.3	48.6	49.6	53.7	65.2
08:45	49.7	48.9	52.1	49.6	49.3	53.3	64.3
09:00	51.9	48.5	50.9	48.7	52.0	54.5	64.8
09:15	50.4	48.7	54.0	50.2	54.7	54.7	66.3
09:30	47.3	51.0	49.5	51.8	55.8	56.6	62.7
09:45	59.4	52.2	51.6	53.1	56.5	56.8	63.0
10:00	47.1	53.3	55.1	50.1	54.5	57.2	60.2
10:15	52.9	50.8	51.7	45.7	55.8	56.4	59.5
10:30	53.7	48.2	50.6	46.8	51.6	57.4	60.0
10:45	53.4	49.5	48.4	51.0	49.0	56.2	57.2
11:00	52.5	48.6	54.7	49.8	51.8	57.0	57.8
11:15	52.7	49.0	51.6	53.6	59.5	56.9	58.5
11:30	53.4	53.5	51.8	49.9	48.4	54.7	57.5
11:45	52.5	51.1	54.0	50.7	48.0	53.9	58.4
12:00	52.0	49.6	49.5	50.2	65.2	52.6	54.9
12:15	51.6	50.5	49.9	50.9	46.8	53.3	53.1
12:30	56.1	55.8	50.8	54.3	58.2	54.1	56.3
12:45	54.7	55.6	51.9	51.6	53.2	56.2	57.3
13:00	55.2	49.9	50.6	54.8	53.9	54.5	52.8
13:15	51.4	49.4	48.0	53.5	52.4	56.9	53.9
13:30	48.0	49.7	52.5	54.6	46.6	54.6	52.1
13:45	51.6	49.9	55.7	55.1	45.8	53.5	52.2
14:00	55.0	49.4	57.2	58.2	47.5	54.1	54.5
14:15	56.5	49.0	57.9	58.8	47.1	54.9	51.9
14:30	54.6	51.1	56.6	60.6	46.5	54.3	56.7
14:45	55.1	52.0	54.0	56.2	45.1	54.0	57.6
15:00	51.0	53.2	54.4	51.3	44.6	54.8	53.2
15:15	49.5	52.0	51.7	50.4	48.2	51.4	51.7
15:30	49.5	52.0	51.0	46.3	47.3	52.4	49.7
15:45	50.5	51.2	47.4	47.3	48.1	55.0	52.3
16:00	49.6	48.8	47.1	46.3	47.5	55.6	47.9
16:15	48.5	48.8	49.5	46.2	49.5	55.9	48.0
16:30	49.0	47.5	44.4	44.5	45.2	55.5	48.4
16:45	50.4	46.4	44.3	45.8	46.6	55.7	48.2
17:00	54.8	45.9	44.5	44.7	46.3	55.9	49.5
17:15	50.9	47.1	44.7	46.4	45.6	53.1	46.8
17:30	49.8	46.6	45.2	44.9	46.0	51.9	47.8
17:45	48.9	45.9	46.4	43.5	44.7	53.7	46.7
18:00	50.1	46.1	44.1	44.3	45.0	53.3	48.0
18:15	48.5	44.5	44.2	51.3	43.4	50.7	48.1
18:30	47.5	44.4	45.7	43.9	43.5	53.1	46.2
18:45	48.1	44.6	46.1	43.7	45.1	51.7	43.2
$L_{Aeq,10hour}$	53.1	50.7	52.3	52.5	53.6	55.4	n/a
Worst Case $L_{Aeq,15mins}$	59.4	55.8	57.9	60.6	65.2	57.4	66.3

Notes:

$L_{Aeq,10hour}$ Represents Energy Equivalent Level Between Weekday Permitted Hours of 08.00 to 18.00 hours

Worst case $L_{Aeq,15mins}$ Represents Highest Value During Permitted Hours of 08.00 to 18.00 hours (weekdays & Sunday) & 08.00 to 12.30 hours (Saturday)

The Steadings, Cirencester

Measurement Position 1

Week Commencing: 25 November 2024

quantum monitoring

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	25/11/2024	26/11/2024	27/11/2024	28/11/2024	29/11/2024	30/11/2024	01/12/2024
07:00	43.4	46.9	46.3	46.5	46.2	40.5	-
07:15	46.8	48.1	47.0	46.6	47.4	45.7	-
07:30	54.6	51.9	47.3	47.5	49.0	46.3	-
07:45	47.5	48.1	48.4	48.0	49.8	41.5	-
08:00	47.8	50.1	49.7	48.1	50.6	46.8	-
08:15	61.1	52.2	52.8	50.0	52.1	42.5	-
08:30	49.9	51.3	54.7	51.4	54.0	45.2	-
08:45	50.9	55.2	52.8	51.6	53.9	44.8	-
09:00	49.8	59.8	53.0	50.6	54.1	49.4	-
09:15	48.6	50.7	53.8	49.3	55.5	48.2	-
09:30	49.5	55.8	52.3	51.1	54.1	47.0	-
09:45	46.5	52.5	54.6	52.7	54.2	46.3	-
10:00	47.7	50.0	54.6	54.2	54.8	46.9	-
10:15	48.0	47.0	52.4	55.9	52.9	46.6	-
10:30	49.0	48.7	53.6	55.6	54.0	48.2	-
10:45	48.2	48.5	53.5	56.8	56.0	47.0	-
11:00	48.7	48.8	54.9	56.1	55.4	47.1	-
11:15	49.1	50.0	54.9	53.8	57.0	46.5	-
11:30	55.0	50.7	55.6	51.8	55.9	48.1	-
11:45	52.2	49.6	54.1	49.8	56.4	46.7	-
12:00	52.0	51.6	56.2	49.7	53.5	46.1	-
12:15	51.8	54.2	53.2	50.2	52.8	48.4	-
12:30	51.0	52.4	47.9	52.1	52.1	47.0	-
12:45	49.6	52.1	46.9	51.5	50.2	46.5	-
13:00	52.1	54.1	46.6	50.1	49.2	46.2	-
13:15	53.2	51.9	45.1	54.2	49.4	47.1	-
13:30	58.3	48.8	47.0	50.1	50.0	48.0	-
13:45	55.7	51.6	53.7	50.1	49.5	46.0	-
14:00	52.2	54.2	60.2	54.5	49.1	45.7	-
14:15	52.8	50.1	61.7	57.2	48.8	45.0	-
14:30	54.1	49.9	59.4	53.6	52.7	46.4	-
14:45	51.2	50.8	48.8	53.5	47.7	45.5	-
15:00	49.7	50.9	58.8	56.9	49.0	46.8	-
15:15	47.7	52.3	47.9	51.9	49.3	46.5	-
15:30	46.6	50.3	47.9	53.8	52.7	46.4	-
15:45	47.5	51.8	48.8	53.4	49.2	46.8	-
16:00	47.4	49.8	48.7	49.4	55.2	46.2	-
16:15	48.4	51.0	50.2	54.2	49.2	47.1	-
16:30	47.3	48.4	47.2	47.9	49.5	47.1	-
16:45	47.6	49.4	46.2	47.6	49.7	45.0	-
17:00	45.2	48.3	46.0	47.4	47.9	46.3	-
17:15	47.6	49.1	45.5	47.7	48.2	46.6	-
17:30	47.0	47.6	48.2	47.7	48.0	46.1	-
17:45	46.0	48.1	45.6	47.5	47.1	46.3	-
18:00	45.9	47.0	48.5	48.1	46.8	45.8	-
18:15	46.8	46.5	48.3	45.8	45.5	45.4	-
18:30	47.8	43.2	48.5	45.5	45.0	43.1	-
18:45	42.3	44.5	47.3	45.5	44.9	42.7	-
$L_{Aeq,10hour}$	51.9	51.9	53.9	52.7	52.7	47.0	n/a
Worst Case $L_{Aeq,15mins}$	61.1	59.8	61.7	57.2	57.0	49.4	n/a

Notes:

$L_{Aeq,10hour}$ Represents Energy Equivalent Level Between Weekday Permitted Hours of 08.00 to 18.00 hours

Worst case $L_{Aeq,15mins}$ Represents Highest Value During Permitted Hours of 08.00 to 18.00 hours (weekdays & Sunday) & 08.00 to 12.30 hours (Saturday)

Appendix B

Automated Noise Monitoring Results
Monitoring Station 2

The Steadings, Cirencester

Measurement Position 2

Week Commencing: 28 October 2024

quantum monitoring

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	28/10/2024	29/10/2024	30/10/2024	31/10/2024	01/11/2024	02/11/2024	03/11/2024
07:00	-	-	-	-	38.9	38.0	41.6
07:15	-	-	-	-	40.8	39.4	45.0
07:30	-	-	-	-	41.2	39.9	40.3
07:45	-	-	-	-	41.6	40.3	42.6
08:00	-	-	-	-	42.0	41.6	37.9
08:15	-	-	-	-	49.1	41.8	39.6
08:30	-	-	-	-	49.2	43.8	40.8
08:45	-	-	-	-	47.7	43.0	38.9
09:00	-	-	-	-	47.6	44.5	40.1
09:15	-	-	-	-	47.7	44.5	42.7
09:30	-	-	-	-	49.0	41.4	41.5
09:45	-	-	-	-	45.3	41.8	41.4
10:00	-	-	-	-	40.6	40.7	43.0
10:15	-	-	-	-	42.9	41.6	41.7
10:30	-	-	-	-	47.4	41.3	41.5
10:45	-	-	-	-	42.0	40.8	41.1
11:00	-	-	-	-	44.9	41.1	42.5
11:15	-	-	-	-	38.8	39.7	40.8
11:30	-	-	-	-	39.7	40.6	40.7
11:45	-	-	-	-	46.5	42.2	40.0
12:00	-	-	-	-	40.3	40.9	40.5
12:15	-	-	-	-	41.7	41.7	40.2
12:30	-	-	-	-	46.5	40.6	40.0
12:45	-	-	-	-	45.2	44.4	40.3
13:00	-	-	-	-	43.9	39.9	41.2
13:15	-	-	-	-	44.1	40.5	44.0
13:30	-	-	-	-	45.1	44.3	40.5
13:45	-	-	-	-	50.8	45.2	41.4
14:00	-	-	-	-	54.1	40.6	41.3
14:15	-	-	-	-	52.5	40.2	43.0
14:30	-	-	-	-	42.3	41.0	44.8
14:45	-	-	-	-	45.5	42.0	41.9
15:00	-	-	-	-	44.2	42.1	40.5
15:15	-	-	-	-	46.2	44.3	41.6
15:30	-	-	-	-	42.8	46.0	41.3
15:45	-	-	-	-	44.5	42.0	40.0
16:00	-	-	-	-	46.1	42.1	39.6
16:15	-	-	-	-	41.7	42.1	41.5
16:30	-	-	-	-	38.1	46.3	39.6
16:45	-	-	-	-	46.6	41.6	39.6
17:00	-	-	-	-	46.6	44.4	38.2
17:15	-	-	-	-	38.4	40.0	37.8
17:30	-	-	-	-	38.1	40.1	36.5
17:45	-	-	-	-	38.9	52.0	37.6
18:00	-	-	-	-	37.7	42.3	41.7
18:15	-	-	-	-	37.6	41.8	37.8
18:30	-	-	-	-	36.8	41.2	39.3
18:45	-	-	-	-	36.9	40.0	37.0
$L_{Aeq,10hour}$	-	-	-	-	46.4	42.1	n/a
Worst Case $L_{Aeq,15mins}$	-	-	-	-	54.1	52.0	44.8

Notes:

$L_{Aeq,10hour}$ Represents Energy Equivalent Level Between Weekday Permitted Hours of 08.00 to 18.00 hours

Worst case $L_{Aeq,15mins}$ Represents Highest Value During Permitted Hours of 08.00 to 18.00 hours (weekdays & Sunday) & 08.00 to 12.30 hours (Saturday)

The Steadings, Cirencester

Measurement Position 2

Week Commencing: 04 November 2024

quantum monitoring

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	04/11/2024	05/11/2024	06/11/2024	07/11/2024	08/11/2024	09/11/2024	10/11/2024
07:00	42.1	39.6	40.7	42.1	41.5	38.3	37.9
07:15	42.8	40.4	39.5	43.3	42.2	39.5	39.4
07:30	46.1	41.8	43.5	43.9	42.9	37.3	39.1
07:45	51.8	42.8	43.7	44.3	43.4	39.3	39.4
08:00	45.6	43.6	44.3	46.6	45.1	37.9	45.2
08:15	48.2	47.9	46.4	52.1	53.8	38.1	39.0
08:30	48.2	49.7	48.9	50.5	50.7	46.2	40.3
08:45	47.9	51.4	51.0	50.5	50.5	41.3	43.0
09:00	51.1	50.2	47.6	50.1	51.0	39.7	38.4
09:15	52.2	49.8	49.2	50.0	50.4	37.4	40.7
09:30	51.6	49.5	47.0	49.0	50.6	37.8	44.4
09:45	50.9	53.6	50.3	47.6	51.9	38.3	45.5
10:00	53.6	53.6	45.3	47.5	53.1	38.6	41.8
10:15	53.5	52.9	50.9	48.1	48.7	37.4	42.3
10:30	49.4	52.8	50.2	48.4	48.0	39.3	42.0
10:45	47.9	50.1	51.4	48.5	52.0	38.8	41.4
11:00	51.4	55.0	51.9	49.6	50.4	41.9	41.1
11:15	51.5	49.8	44.3	47.2	52.7	38.4	40.1
11:30	46.5	53.1	46.0	46.8	51.2	38.6	39.0
11:45	47.2	51.5	49.2	47.2	48.6	43.9	44.4
12:00	47.1	51.0	48.8	46.6	51.2	42.9	37.3
12:15	48.8	50.2	46.4	46.3	47.1	45.0	39.5
12:30	48.6	53.9	50.1	48.4	44.0	41.2	42.0
12:45	49.1	52.8	49.5	47.8	47.5	37.1	39.4
13:00	48.3	50.6	50.2	53.3	46.0	37.0	38.3
13:15	46.8	55.3	45.7	49.9	47.1	40.3	40.3
13:30	47.3	51.5	47.5	48.4	47.2	38.0	38.2
13:45	47.6	54.5	47.1	47.3	49.4	38.6	37.8
14:00	48.5	50.1	48.5	46.5	49.3	35.8	38.4
14:15	52.7	51.0	48.3	47.9	44.6	39.7	53.0
14:30	45.0	48.8	49.5	46.7	48.9	39.3	54.0
14:45	46.2	51.4	48.0	49.1	50.0	38.3	39.5
15:00	48.9	50.4	48.4	47.0	51.1	36.7	44.1
15:15	49.6	48.1	48.8	46.0	48.3	38.8	38.6
15:30	51.3	43.5	49.9	47.5	45.6	41.3	39.4
15:45	47.7	48.1	50.6	47.4	47.1	39.8	40.6
16:00	47.1	48.2	51.7	46.4	47.7	39.8	42.1
16:15	47.4	48.9	50.1	45.4	47.1	39.8	40.8
16:30	45.2	39.3	42.7	43.7	40.9	47.2	49.6
16:45	42.8	39.0	43.2	43.7	43.4	42.0	41.4
17:00	42.1	43.3	45.2	44.4	38.4	40.2	38.5
17:15	40.9	37.6	41.8	44.2	37.6	38.7	39.2
17:30	41.0	36.8	41.6	43.7	42.1	39.5	37.7
17:45	40.2	37.3	40.4	42.5	36.4	38.1	37.6
18:00	38.8	37.3	40.8	40.8	35.9	37.9	36.8
18:15	38.4	38.6	40.2	41.0	44.0	43.0	37.5
18:30	38.6	39.7	40.3	39.6	41.4	40.6	37.7
18:45	39.3	40.9	39.0	40.2	44.1	38.5	38.9
$L_{Aeq,10hour}$	49.0	50.7	48.5	48.1	49.1	40.9	n/a
Worst Case $L_{Aeq,15mins}$	53.6	55.3	51.9	53.3	53.8	47.2	54.0

Notes:

$L_{Aeq,10hour}$ Represents Energy Equivalent Level Between Weekday Permitted Hours of 08.00 to 18.00 hours

Worst case $L_{Aeq,15mins}$ Represents Highest Value During Permitted Hours of 08.00 to 18.00 hours (weekdays & Sunday) & 08.00 to 12.30 hours (Saturday)

The Steadings, Cirencester

Measurement Position 2

Week Commencing: 11 November 2024

quantum monitoring

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	11/11/2024	12/11/2024	13/11/2024	14/11/2024	15/11/2024	16/11/2024	17/11/2024
07:00	43.8	47.5	46.4	52.7	44.0	41.5	41.5
07:15	43.9	51.4	47.0	45.3	45.0	45.5	38.7
07:30	45.0	49.2	47.0	45.5	45.5	41.2	38.3
07:45	45.0	49.3	47.2	45.2	45.9	41.1	45.8
08:00	49.9	51.0	51.0	47.4	49.1	41.6	41.1
08:15	46.5	50.9	50.9	50.0	49.5	42.0	39.9
08:30	54.1	50.6	50.5	48.5	48.3	43.8	44.6
08:45	51.9	50.8	47.0	48.2	47.3	44.4	47.0
09:00	53.4	48.6	46.9	50.9	46.8	44.2	43.0
09:15	50.4	48.7	46.0	47.4	50.1	46.1	44.7
09:30	45.8	48.9	46.7	48.8	44.6	44.0	43.2
09:45	49.9	48.1	44.8	46.9	48.3	44.4	41.9
10:00	46.0	47.0	44.9	47.8	45.6	45.6	44.6
10:15	54.5	45.4	45.7	46.7	46.6	44.7	44.9
10:30	43.1	50.4	44.4	46.6	46.6	45.6	42.2
10:45	45.1	44.1	48.1	48.1	48.6	44.3	43.8
11:00	43.4	44.5	40.9	43.0	49.4	46.1	45.0
11:15	41.5	46.4	41.9	44.8	46.3	42.9	42.9
11:30	44.9	44.2	42.3	44.9	45.7	42.4	47.4
11:45	42.8	50.3	43.9	45.8	45.7	43.5	46.6
12:00	55.2	47.6	45.5	45.0	46.2	43.6	49.6
12:15	42.7	49.0	46.3	46.3	46.4	42.3	42.5
12:30	44.1	47.1	46.2	45.5	45.5	41.8	50.9
12:45	43.8	48.9	45.5	47.3	48.5	45.4	45.1
13:00	44.6	49.1	46.1	47.0	48.9	41.1	43.8
13:15	45.4	48.4	44.6	49.3	48.7	41.1	47.1
13:30	44.3	47.8	42.8	43.1	45.6	43.5	43.8
13:45	44.0	47.8	45.4	42.9	44.9	41.0	42.9
14:00	43.1	47.9	44.0	45.9	48.7	43.0	42.7
14:15	44.1	49.1	44.4	48.0	44.1	43.9	44.7
14:30	47.2	48.3	46.5	47.8	44.6	41.2	45.8
14:45	45.4	48.6	46.0	46.3	44.1	43.1	41.0
15:00	46.4	48.7	47.0	44.0	43.6	40.4	45.4
15:15	47.0	53.1	51.3	44.9	48.2	41.6	42.2
15:30	49.3	47.8	47.3	44.2	44.6	41.5	47.7
15:45	48.7	47.1	46.7	44.5	54.2	41.2	41.2
16:00	48.4	46.6	53.5	43.6	53.4	40.8	43.6
16:15	48.6	47.1	44.3	45.7	41.2	40.5	42.7
16:30	43.1	48.8	43.7	43.9	42.2	41.1	41.7
16:45	44.9	46.1	43.8	43.5	42.7	40.6	44.2
17:00	44.9	45.1	41.9	43.5	41.5	41.1	42.2
17:15	44.3	45.1	42.0	43.6	41.3	39.7	40.5
17:30	43.4	44.7	41.2	45.5	42.3	39.0	42.1
17:45	44.1	44.8	41.2	42.7	40.3	41.2	39.9
18:00	43.6	44.6	42.2	43.4	41.7	38.8	39.2
18:15	48.8	44.9	45.2	42.9	40.0	46.8	37.5
18:30	43.4	45.0	43.8	43.1	40.3	38.4	39.4
18:45	42.9	45.5	42.5	42.5	39.2	38.5	41.1
$L_{Aeq,10hour}$	48.3	48.4	46.7	46.5	47.4	44.2	n/a
Worst Case $L_{Aeq,15mins}$	55.2	53.1	53.5	50.9	54.2	46.1	50.9

Notes:

$L_{Aeq,10hour}$ Represents Energy Equivalent Level Between Weekday Permitted Hours of 08.00 to 18.00 hours

Worst case $L_{Aeq,15mins}$ Represents Highest Value During Permitted Hours of 08.00 to 18.00 hours (weekdays & Sunday) & 08.00 to 12.30 hours (Saturday)

The Steadings, Cirencester

Measurement Position 2

Week Commencing: 18 November 2024

quantum monitoring

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	18/11/2024	19/11/2024	20/11/2024	21/11/2024	22/11/2024	23/11/2024	24/11/2024
07:00	58.6	46.5	46.0	43.6	41.8	53.0	66.0
07:15	43.3	48.0	45.7	44.8	42.7	54.7	64.6
07:30	44.6	48.2	46.3	48.8	43.9	55.9	64.2
07:45	49.6	46.9	46.7	46.1	43.9	54.5	63.3
08:00	45.7	47.5	48.4	50.6	45.0	54.0	64.7
08:15	54.2	49.4	53.5	48.3	47.4	54.9	64.1
08:30	49.0	47.5	49.8	48.2	49.7	52.8	66.2
08:45	46.4	48.1	47.5	48.5	47.8	56.2	64.3
09:00	48.2	48.0	50.5	47.6	50.3	56.6	66.0
09:15	46.5	48.1	51.5	49.2	49.9	56.4	63.8
09:30	57.9	47.7	44.8	47.9	47.2	59.2	62.6
09:45	45.5	48.4	45.3	50.0	52.8	59.5	60.7
10:00	44.0	48.9	43.6	47.6	50.8	58.9	59.7
10:15	47.4	48.0	43.1	45.2	48.8	55.8	58.5
10:30	49.9	48.9	43.5	48.7	50.4	57.9	59.6
10:45	47.4	47.1	43.6	47.1	48.6	57.2	60.0
11:00	46.6	47.1	45.6	47.1	46.7	58.3	58.7
11:15	45.7	47.5	46.7	53.5	57.2	56.9	59.6
11:30	46.2	47.8	48.5	47.4	44.2	55.3	56.1
11:45	49.2	47.1	46.7	46.8	65.1	54.6	56.6
12:00	43.8	48.2	45.9	47.5	47.0	53.8	53.9
12:15	48.2	47.6	45.4	56.5	44.6	53.2	53.9
12:30	54.1	55.8	45.7	43.6	46.1	55.7	58.1
12:45	50.9	48.9	43.0	46.9	47.2	55.2	53.3
13:00	47.2	47.9	45.1	47.6	52.5	58.0	53.0
13:15	43.1	47.6	43.5	49.5	45.6	56.2	53.7
13:30	45.0	47.0	45.5	48.5	44.6	52.6	51.0
13:45	45.8	46.5	44.2	47.9	44.5	52.7	52.7
14:00	47.1	46.2	46.2	48.9	47.8	54.0	52.0
14:15	46.9	45.6	45.9	49.7	46.2	54.5	54.1
14:30	46.8	45.2	47.1	48.6	45.8	53.6	57.6
14:45	47.9	44.7	49.1	44.3	45.9	54.0	56.1
15:00	49.0	45.4	46.3	45.1	46.8	54.1	53.5
15:15	49.0	46.0	45.4	44.9	44.5	51.9	50.9
15:30	49.6	45.8	47.0	43.8	46.3	54.7	51.1
15:45	49.9	45.2	45.0	45.5	44.8	54.1	49.4
16:00	46.3	46.2	44.8	44.4	47.2	55.6	46.5
16:15	47.8	46.3	45.5	42.5	43.6	56.9	48.5
16:30	49.4	45.6	45.8	43.3	43.4	55.6	45.8
16:45	53.2	45.6	43.7	42.2	44.8	56.3	49.9
17:00	48.4	45.5	43.4	44.7	43.2	54.8	47.7
17:15	48.3	46.2	43.9	43.5	43.7	53.3	44.4
17:30	47.9	44.9	44.0	41.6	43.6	54.3	45.5
17:45	48.3	45.3	45.7	43.1	42.2	54.3	45.6
18:00	47.3	43.9	44.7	42.6	43.2	52.5	46.7
18:15	45.0	42.9	43.9	49.7	42.0	52.5	46.9
18:30	45.6	43.2	42.2	42.4	42.5	51.6	44.5
18:45	45.5	43.3	41.0	42.9	43.4	53.2	42.1
$L_{Aeq,10hour}$	49.4	47.8	46.8	48.2	51.7	56.5	n/a
Worst Case $L_{Aeq,15mins}$	57.9	55.8	53.5	56.5	65.1	59.5	66.2

Notes:

$L_{Aeq,10hour}$ Represents Energy Equivalent Level Between Weekday Permitted Hours of 08.00 to 18.00 hours

Worst case $L_{Aeq,15mins}$ Represents Highest Value During Permitted Hours of 08.00 to 18.00 hours (weekdays & Sunday) & 08.00 to 12.30 hours (Saturday)

The Steadings, Cirencester

Measurement Position 2

Week Commencing: 25 November 2024

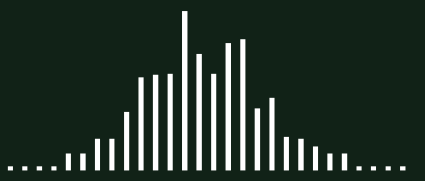
quantum monitoring

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	25/11/2024	26/11/2024	27/11/2024	28/11/2024	29/11/2024	30/11/2024	01/12/2024
07:00	42.1	45.6	46.2	47.2	44.8	39.9	-
07:15	53.2	48.3	46.5	47.1	45.9	38.8	-
07:30	44.3	50.4	46.8	48.1	47.1	41.4	-
07:45	44.5	47.9	47.9	49.0	48.6	45.7	-
08:00	60.5	48.5	50.4	49.8	49.3	41.5	-
08:15	45.9	50.6	50.9	51.6	53.8	43.1	-
08:30	46.7	51.1	49.6	49.9	52.1	42.6	-
08:45	46.9	59.0	49.4	50.1	50.1	43.2	-
09:00	46.0	48.5	49.6	49.5	51.6	45.9	-
09:15	46.1	52.0	48.3	49.0	52.1	43.3	-
09:30	44.4	53.0	48.1	49.4	53.0	42.9	-
09:45	44.2	45.9	49.9	50.1	52.3	42.9	-
10:00	45.0	44.8	46.5	50.7	52.4	43.2	-
10:15	45.9	45.0	47.5	49.3	51.4	44.5	-
10:30	44.7	47.2	47.9	49.5	54.8	43.5	-
10:45	46.4	46.8	48.1	49.3	53.3	43.9	-
11:00	46.0	46.6	48.2	49.4	52.2	43.9	-
11:15	49.4	47.9	47.6	50.3	50.8	42.9	-
11:30	51.1	44.3	49.1	48.9	53.4	46.5	-
11:45	49.0	46.0	49.2	47.2	50.8	43.5	-
12:00	48.3	47.1	48.2	47.4	49.0	46.8	-
12:15	48.0	47.7	48.9	48.7	50.7	43.2	-
12:30	47.6	49.2	44.6	49.7	48.8	44.4	-
12:45	49.1	48.6	45.9	50.0	49.6	41.3	-
13:00	48.6	50.1	45.2	51.1	48.1	44.5	-
13:15	54.9	47.4	44.9	49.7	49.9	44.6	-
13:30	50.6	49.3	45.5	48.7	49.9	47.5	-
13:45	48.8	46.9	48.2	51.7	48.6	40.9	-
14:00	49.2	45.5	52.3	53.2	48.5	41.1	-
14:15	52.1	47.8	49.8	51.7	46.4	41.9	-
14:30	49.3	49.5	51.5	52.0	51.3	41.9	-
14:45	48.8	48.9	61.5	51.9	48.2	41.5	-
15:00	49.4	51.9	45.0	52.4	47.8	41.0	-
15:15	48.2	47.9	47.1	51.5	51.6	41.9	-
15:30	46.1	52.1	48.0	52.0	48.1	42.6	-
15:45	48.2	47.0	46.2	52.5	47.9	42.1	-
16:00	47.9	48.6	48.3	51.0	46.7	42.1	-
16:15	44.5	46.0	46.3	48.6	45.5	42.8	-
16:30	46.2	46.5	44.5	47.6	45.8	42.6	-
16:45	42.9	45.0	44.0	47.1	45.4	41.5	-
17:00	43.5	45.1	44.7	47.4	44.3	41.5	-
17:15	44.0	43.8	42.0	46.8	46.1	41.0	-
17:30	46.2	44.3	48.5	46.8	43.5	42.5	-
17:45	43.1	43.0	42.9	46.7	42.1	41.1	-
18:00	43.9	42.9	44.2	47.2	43.4	40.9	-
18:15	46.7	43.2	44.9	45.7	42.2	39.9	-
18:30	41.6	43.8	46.2	45.5	42.6	40.0	-
18:45	40.2	43.3	44.0	45.3	41.3	40.6	-
$L_{Aeq,10hour}$	49.6	49.4	49.9	50.1	50.3	43.9	n/a
Worst Case $L_{Aeq,15mins}$	60.5	59.0	61.5	53.2	54.8	47.5	n/a

Notes:

$L_{Aeq,10hour}$ Represents Energy Equivalent Level Between Weekday Permitted Hours of 08.00 to 18.00 hours

Worst case $L_{Aeq,15mins}$ Represents Highest Value During Permitted Hours of 08.00 to 18.00 hours (weekdays & Sunday) & 08.00 to 12.30 hours (Saturday)



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