cass allen

Architectural & Environmental Acousticians
Noise & Vibration Engineers

# Holloway Park, London

## Construction Monitoring Report

| | |
|---|---|
| Client: | London Square |
| Ref: | CM79-22405-R0 |
| Date: | 22 April 2024 |
| Note by: | Anthony Coraci, MSc DipIOA MIOA, Senior Acoustics Consultant |

## 1. INTRODUCTION

1.1 This Technical Note sets out results of the construction monitoring being carried out at the above site between Tuesday 2nd & Saturday 13th April 2024. No works took place on Monday 1st due to the bank holiday weekend. The monitoring is being carried out in general agreement with the methodology in the current Section 61 Consent between the London Borough of Islington and OHOB.

## 2. WEEKLY ACTIVITIES

2.1 The following activities have been carried out onsite this week, in addition to the usual use of the Haul Road with site vehicles:

**OHOB**

- Creating a new haul road
- Repair of Pile mats
- Installing tarmac around the welfare area

**Pure Logistic**

- General site works



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**Central Pile**

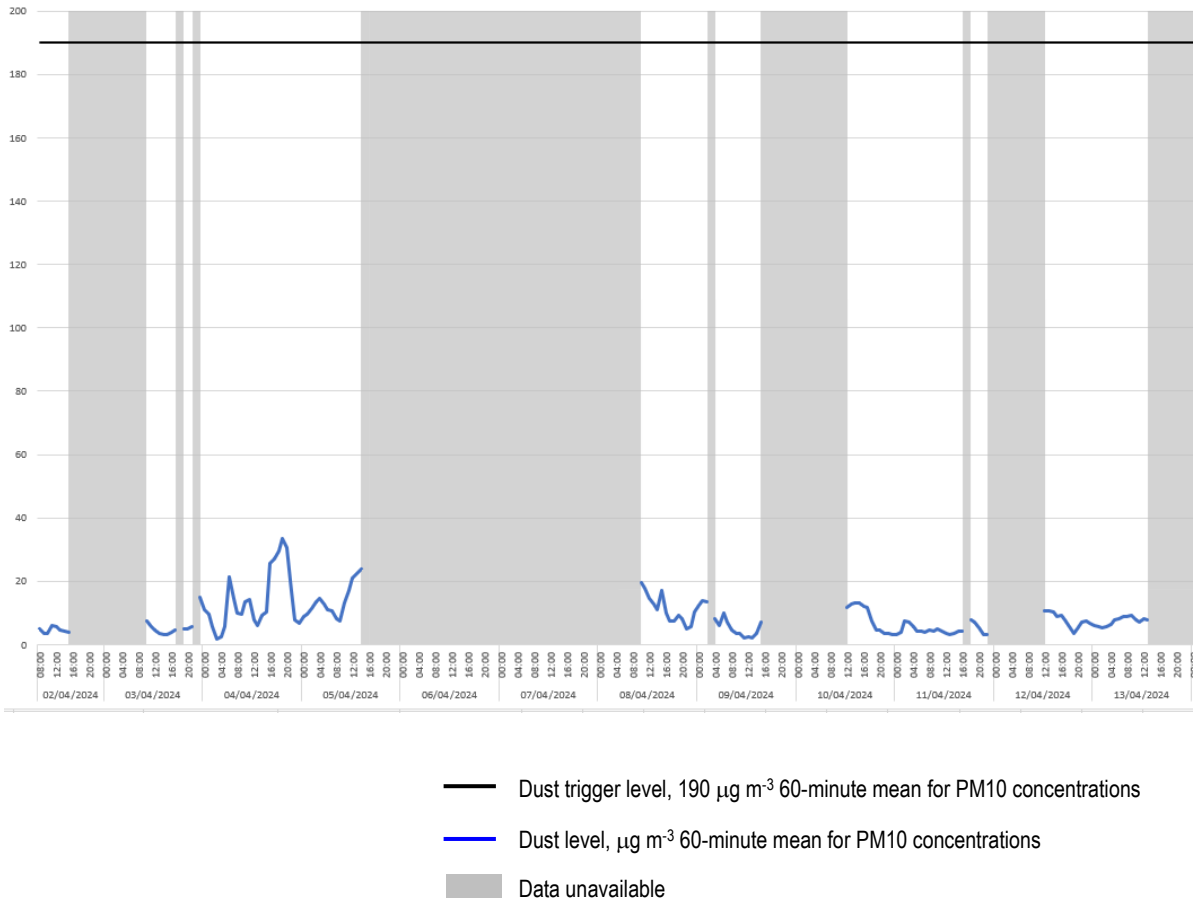
- Installation of piles

# 3. MONITORING DATA

3.1 This section sets out a summary of the monitoring data that has been recorded onsite and provides a discussion of any exceedances and best practicable means incorporated by the site team if exceedances were believed to be construction related.

**Dust Monitoring Results**

Location 1



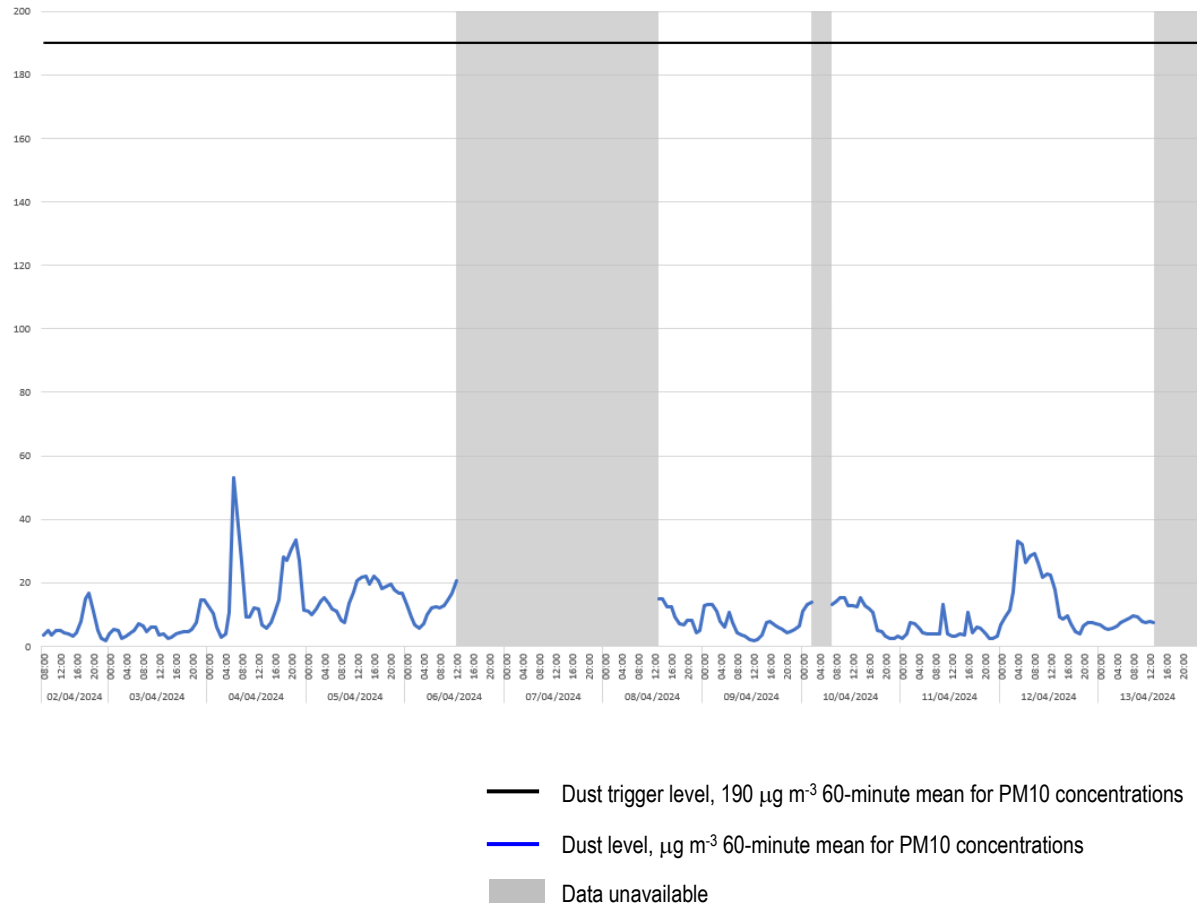

3.2 There was 77% data coverage at Location 1 during construction hours for the monitoring period covered by this report. The monitor was offline between the hollowing times, due to a drained battery:

- Tuesday 2nd April 16:00 to Wednesday 03 April 09:00;
- Friday 5th April 15:00-16:00;

- Friday 5th April 17:00 & Monday 08 April 09:00;
- Tuesday 9th April 16:00 & Wednesday 10 April 11:00;
- Thursday 11th April 17:00 & Friday 12th April 11:00.

3.3 Cass Allen attended site on Friday 12th April to connect the noise & dust monitors at Locations 1, 2 & 3 to site power. Consequently, it is expected that there will be far fewer interruptions in the data collection going forward. No exceedances of the project dust criteria of 190 micrograms per cubic meter were recorded during the monitoring period covered by this report.

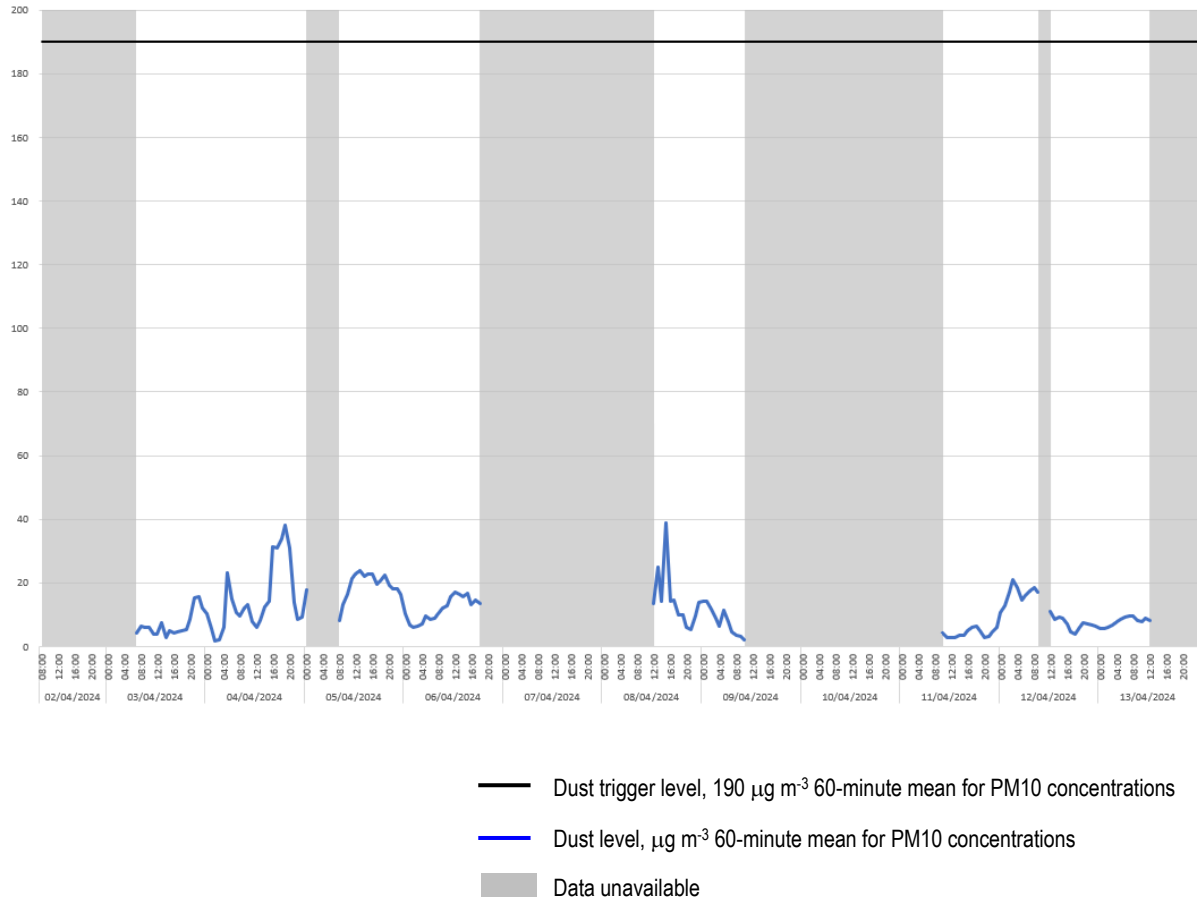
Location 2




3.4 There was 95% data coverage at Location 2 during construction hours for the monitoring period covered by this report. The monitor was offline between Saturday 6th April 12:00 & Monday 8th April 12:00 due to a drained battery.

3.5 Cass Allen attended site on Friday 12th April to connect the noise & dust monitors at Locations 1, 2 & 3 to site power. Consequently, it is expected that there will be far fewer interruptions in the data collection going forward. No exceedances of the project dust criteria of 190 micrograms per cubic meter were recorded during the monitoring period covered by this report.

Location 3




3.6 There was 67% data coverage at Location 3 during construction hours for the monitoring period covered by this report. The monitor was offline between the following hours, due to a drained battery:

- Tuesday 2nd April 08:00 & Wednesday 3rd April 06:00;
- Saturday 6th April 19:00 & Monday 8th April 11:00;
- Tuesday 9th April 11:00th & Thursday 11th April 09:00;
- Friday 12th April 10:00 & Friday 12th April 11:00.

3.7 Cass Allen attended site on Friday 12th April to connect the noise & dust monitors at Locations 1, 2 & 3 to site power. Consequently, it is expected that there will be far fewer interruptions in the data collection going forward. No exceedances of the project dust criteria of 190 micrograms per cubic meter were recorded during the monitoring period covered by this report.

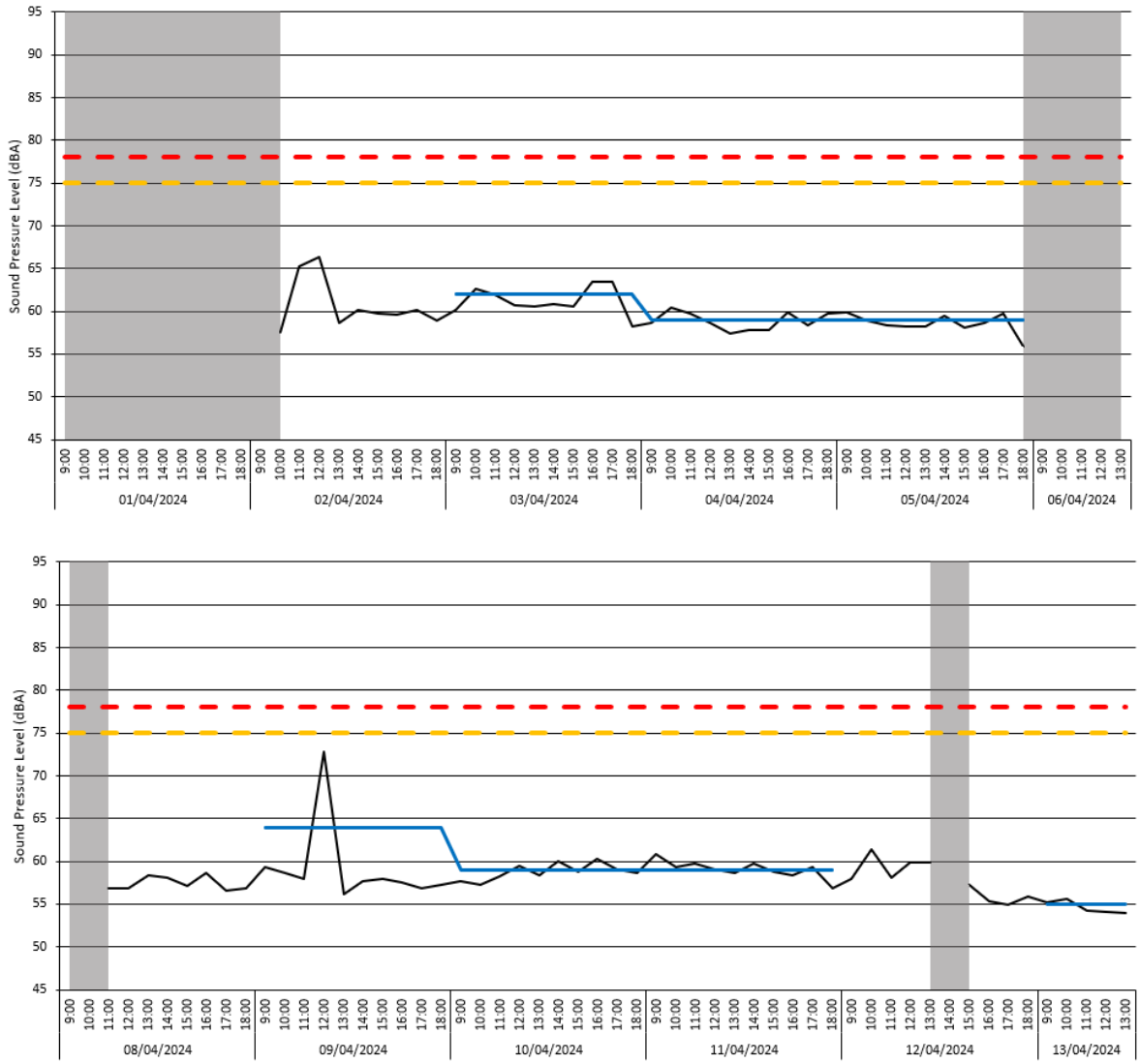
## Noise Monitoring Results

Location 1 – Raw Data

# Broadband Results

| Date [YYYY-MM-DD] | Time [hh:mm:ss] | LAeq(60min) [dB] | LAeq(7hr) [dB] | LAeq(10hr) [dB] | LAeq(5hr) [dB] |
|---|---|---|---|---|---|
| 2024-04-02 | 10:00:00 | 57.5 | -.- | -.- | -.- |
| 2024-04-02 | 11:00:00 | 65.2 | -.- | -.- | -.- |
| 2024-04-02 | 12:00:00 | 66.4 | -.- | -.- | -.- |
| 2024-04-02 | 13:00:00 | 58.7 | -.- | -.- | -.- |
| 2024-04-02 | 14:00:00 | 60.1 | -.- | -.- | -.- |
| 2024-04-02 | 15:00:00 | 59.8 | -.- | -.- | -.- |
| 2024-04-02 | 16:00:00 | 59.6 | -.- | -.- | -.- |
| 2024-04-02 | 17:00:00 | 60.1 | -.- | -.- | -.- |
| 2024-04-02 | 18:00:00 | 58.9 | -.- | -.- | -.- |
| 2024-04-03 | 09:00:00 | 60.1 | -.- | -.- | -.- |
| 2024-04-03 | 10:00:00 | 62.6 | -.- | -.- | -.- |
| 2024-04-03 | 11:00:00 | 62.0 | -.- | -.- | -.- |
| 2024-04-03 | 12:00:00 | 60.7 | -.- | -.- | -.- |
| 2024-04-03 | 13:00:00 | 60.6 | -.- | -.- | -.- |
| 2024-04-03 | 14:00:00 | 60.8 | -.- | -.- | -.- |
| 2024-04-03 | 15:00:00 | 60.6 | -.- | -.- | -.- |
| 2024-04-03 | 16:00:00 | 63.5 | -.- | -.- | -.- |
| 2024-04-03 | 17:00:00 | 63.5 | -.- | -.- | -.- |
| 2024-04-03 | 18:00:00 | 58.2 | -.- | 61.5 | -.- |
| 2024-04-04 | 09:00:00 | 58.7 | -.- | -.- | -.- |
| 2024-04-04 | 10:00:00 | 60.4 | -.- | -.- | -.- |
| 2024-04-04 | 11:00:00 | 59.7 | -.- | -.- | -.- |
| 2024-04-04 | 12:00:00 | 58.6 | -.- | -.- | -.- |
| 2024-04-04 | 13:00:00 | 57.4 | -.- | -.- | -.- |
| 2024-04-04 | 14:00:00 | 57.8 | -.- | -.- | -.- |
| 2024-04-04 | 15:00:00 | 57.8 | -.- | -.- | -.- |
| 2024-04-04 | 16:00:00 | 59.9 | -.- | -.- | -.- |
| 2024-04-04 | 17:00:00 | 58.4 | -.- | -.- | -.- |
| 2024-04-04 | 18:00:00 | 59.8 | -.- | 59.0 | -.- |
| 2024-04-05 | 09:00:00 | 59.9 | -.- | -.- | -.- |
| 2024-04-05 | 10:00:00 | 58.9 | -.- | -.- | -.- |
| 2024-04-05 | 11:00:00 | 58.3 | -.- | -.- | -.- |
| 2024-04-05 | 12:00:00 | 58.2 | -.- | -.- | -.- |
| 2024-04-05 | 13:00:00 | 58.2 | -.- | -.- | -.- |
| 2024-04-05 | 14:00:00 | 59.4 | -.- | -.- | -.- |
| 2024-04-05 | 15:00:00 | 58.1 | -.- | -.- | -.- |
| 2024-04-05 | 16:00:00 | 58.7 | -.- | -.- | -.- |
| 2024-04-05 | 17:00:00 | 59.7 | -.- | -.- | -.- |
| 2024-04-05 | 18:00:00 | 55.9 | -.- | 58.6 | -.- |
| 2024-04-08 | 11:00:00 | 56.8 | -.- | -.- | -.- |
| 2024-04-08 | 12:00:00 | 56.9 | -.- | -.- | -.- |
| 2024-04-08 | 13:00:00 | 58.3 | -.- | -.- | -.- |
| 2024-04-08 | 14:00:00 | 58.1 | -.- | -.- | -.- |
| 2024-04-08 | 15:00:00 | 57.1 | -.- | -.- | -.- |
| 2024-04-08 | 16:00:00 | 58.6 | -.- | -.- | -.- |
| 2024-04-08 | 17:00:00 | 56.6 | -.- | -.- | -.- |
| 2024-04-08 | 18:00:00 | 56.9 | -.- | -.- | -.- |
| 2024-04-09 | 09:00:00 | 59.3 | -.- | -.- | -.- |
| 2024-04-09 | 10:00:00 | 58.7 | -.- | -.- | -.- |
| 2024-04-09 | 11:00:00 | 57.9 | -.- | -.- | -.- |
| 2024-04-09 | 12:00:00 | 72.8 | -.- | -.- | -.- |
| 2024-04-09 | 13:00:00 | 56.1 | -.- | -.- | -.- |
| 2024-04-09 | 14:00:00 | 57.7 | -.- | -.- | -.- |
| 2024-04-09 | 15:00:00 | 57.9 | -.- | -.- | -.- |
| 2024-04-09 | 16:00:00 | 57.5 | -.- | -.- | -.- |
| 2024-04-09 | 17:00:00 | 56.9 | -.- | -.- | -.- |
| 2024-04-09 | 18:00:00 | 57.3 | -.- | 63.9 | -.- |
| 2024-04-10 | 09:00:00 | 57.7 | -.- | -.- | -.- |
| 2024-04-10 | 10:00:00 | 57.3 | -.- | -.- | -.- |
| 2024-04-10 | 11:00:00 | 58.2 | -.- | -.- | -.- |
| 2024-04-10 | 12:00:00 | 59.5 | -.- | -.- | -.- |
| 2024-04-10 | 13:00:00 | 58.3 | -.- | -.- | -.- |
| 2024-04-10 | 14:00:00 | 60.0 | -.- | -.- | -.- |
| 2024-04-10 | 15:00:00 | 58.8 | -.- | -.- | -.- |
| 2024-04-10 | 16:00:00 | 60.3 | -.- | -.- | -.- |
| 2024-04-10 | 17:00:00 | 59.0 | -.- | -.- | -.- |
| 2024-04-10 | 18:00:00 | 58.6 | -.- | 58.9 | -.- |
| 2024-04-11 | 09:00:00 | 60.9 | -.- | -.- | -.- |
| 2024-04-11 | 10:00:00 | 59.3 | -.- | -.- | -.- |
| 2024-04-11 | 11:00:00 | 59.7 | -.- | -.- | -.- |
| 2024-04-11 | 12:00:00 | 59.0 | -.- | -.- | -.- |
| 2024-04-11 | 13:00:00 | 58.7 | -.- | -.- | -.- |
| 2024-04-11 | 14:00:00 | 59.7 | -.- | -.- | -.- |
| 2024-04-11 | 15:00:00 | 58.8 | -.- | -.- | -.- |
| 2024-04-11 | 16:00:00 | 58.4 | -.- | -.- | -.- |
| 2024-04-11 | 17:00:00 | 59.3 | -.- | -.- | -.- |
| 2024-04-11 | 18:00:00 | 56.9 | -.- | 59.2 | -.- |
| 2024-04-12 | 09:00:00 | 58.0 | -.- | -.- | -.- |
| 2024-04-12 | 10:00:00 | 61.4 | -.- | -.- | -.- |
| 2024-04-12 | 11:00:00 | 58.1 | -.- | -.- | -.- |
| 2024-04-12 | 12:00:00 | 59.9 | -.- | -.- | -.- |
| 2024-04-12 | 13:00:00 | 59.9 | -.- | -.- | -.- |
| 2024-04-12 | 15:00:00 | 57.2 | -.- | -.- | -.- |
| 2024-04-12 | 16:00:00 | 55.4 | -.- | -.- | -.- |
| 2024-04-12 | 17:00:00 | 54.9 | -.- | -.- | -.- |
| 2024-04-12 | 18:00:00 | 55.9 | -.- | -.- | -.- |
| 2024-04-13 | 09:00:00 | 55.2 | -.- | -.- | -.- |
| 2024-04-13 | 10:00:00 | 55.6 | -.- | -.- | -.- |
| 2024-04-13 | 11:00:00 | 54.2 | -.- | -.- | -.- |
| 2024-04-13 | 12:00:00 | 54.1 | -.- | -.- | -.- |
| 2024-04-13 | 13:00:00 | 53.9 | -.- | -.- | 54.6 |

Location 1 – Time History Data




3.8 There was 86% data coverage at Location 1 during construction hours for the monitoring period covered by this report. The monitor was offline between:

- 09:00 Saturday 6th April & 11:00 Monday 8th April due to a drained battery;
- 13:00 & 15:00 on Friday 12th April due to a temporary power outage.

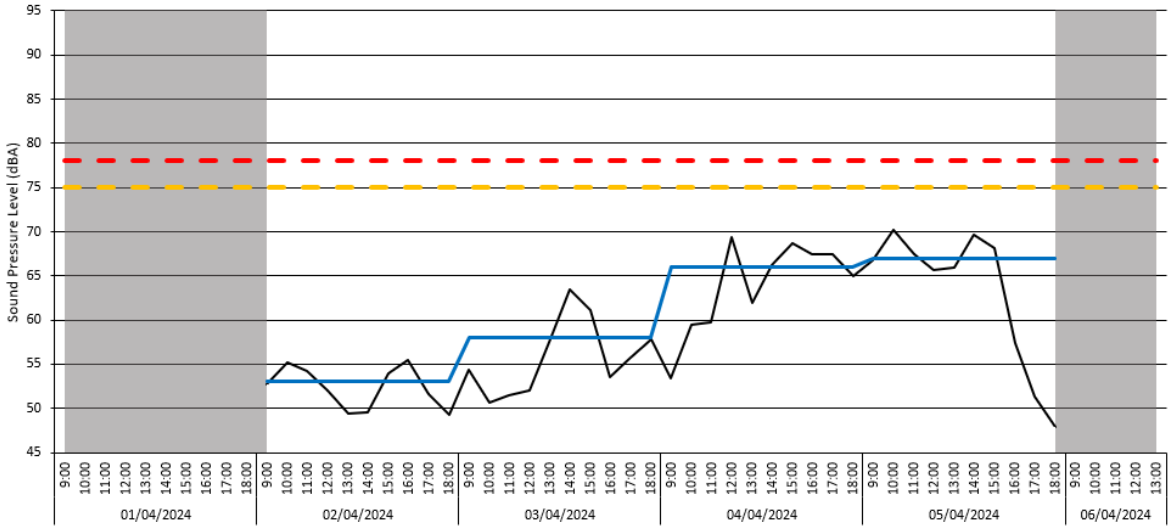
3.9 Cass Allen attended site on Friday 12th April to connect the noise & dust monitors at Locations 1, 2 & 3 to site power. Consequently, it is expected that there will be far fewer interruptions in the data collection going forward. No exceedances of the project hourly noise criteria of 78 dB LAeq nor the daily project noise limit of 75 dB LAeq (0800-1800 hours) were recorded during the monitoring period covered by this report.

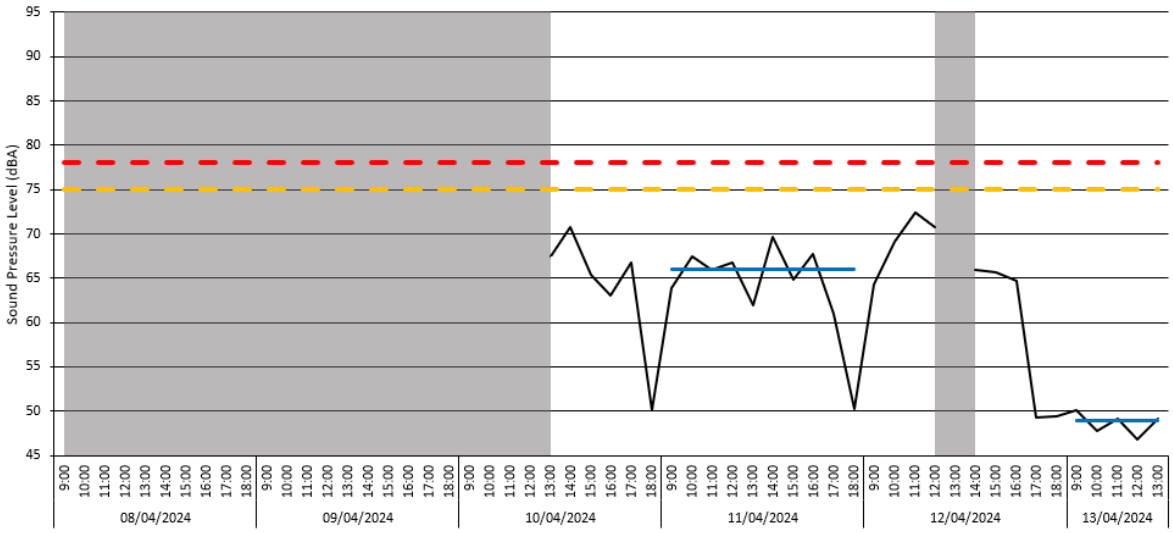
Location 2 – Raw Data

# Broadband Results

| Date [YYYY-MM-DD] | Time [hh:mm:ss] | LAeq(60min) [dB] | LAeq(10hr) [dB] | LAeq(5hr) [dB] |
|---|---|---|---|---|
| 2024-04-02 | 09:00:00 | 52.7 | -.- | -.- |
| 2024-04-02 | 10:00:00 | 55.2 | -.- | -.- |
| 2024-04-02 | 11:00:00 | 54.2 | -.- | -.- |
| 2024-04-02 | 12:00:00 | 52.1 | -.- | -.- |
| 2024-04-02 | 13:00:00 | 49.4 | -.- | -.- |
| 2024-04-02 | 14:00:00 | 49.5 | -.- | -.- |
| 2024-04-02 | 15:00:00 | 53.9 | -.- | -.- |
| 2024-04-02 | 16:00:00 | 55.5 | -.- | -.- |
| 2024-04-02 | 17:00:00 | 51.6 | -.- | -.- |
| 2024-04-02 | 18:00:00 | 49.3 | 52.9 | -.- |
| 2024-04-03 | 09:00:00 | 54.4 | -.- | -.- |
| 2024-04-03 | 10:00:00 | 50.6 | -.- | -.- |
| 2024-04-03 | 11:00:00 | 51.5 | -.- | -.- |
| 2024-04-03 | 12:00:00 | 52.0 | -.- | -.- |
| 2024-04-03 | 13:00:00 | 57.8 | -.- | -.- |
| 2024-04-03 | 14:00:00 | 63.5 | -.- | -.- |
| 2024-04-03 | 15:00:00 | 61.1 | -.- | -.- |
| 2024-04-03 | 16:00:00 | 53.6 | -.- | -.- |
| 2024-04-03 | 17:00:00 | 55.7 | -.- | -.- |
| 2024-04-03 | 18:00:00 | 57.8 | 57.8 | -.- |
| 2024-04-04 | 09:00:00 | 53.4 | -.- | -.- |
| 2024-04-04 | 10:00:00 | 59.4 | -.- | -.- |
| 2024-04-04 | 11:00:00 | 59.8 | -.- | -.- |
| 2024-04-04 | 12:00:00 | 69.4 | -.- | -.- |
| 2024-04-04 | 13:00:00 | 62.0 | -.- | -.- |
| 2024-04-04 | 14:00:00 | 66.2 | -.- | -.- |
| 2024-04-04 | 15:00:00 | 68.7 | -.- | -.- |
| 2024-04-04 | 16:00:00 | 67.4 | -.- | -.- |
| 2024-04-04 | 17:00:00 | 67.5 | -.- | -.- |
| 2024-04-04 | 18:00:00 | 65.0 | 65.8 | -.- |
| 2024-04-05 | 09:00:00 | 66.8 | -.- | -.- |
| 2024-04-05 | 10:00:00 | 70.2 | -.- | -.- |
| 2024-04-05 | 11:00:00 | 67.4 | -.- | -.- |
| 2024-04-05 | 12:00:00 | 65.7 | -.- | -.- |
| 2024-04-05 | 13:00:00 | 65.9 | -.- | -.- |
| 2024-04-05 | 14:00:00 | 69.7 | -.- | -.- |
| 2024-04-05 | 15:00:00 | 68.1 | -.- | -.- |
| 2024-04-05 | 16:00:00 | 57.4 | -.- | -.- |
| 2024-04-05 | 17:00:00 | 51.4 | -.- | -.- |
| 2024-04-05 | 18:00:00 | 47.9 | 66.5 | -.- |
| 2024-04-10 | 13:00:00 | 67.4 | -.- | -.- |
| 2024-04-10 | 14:00:00 | 70.8 | -.- | -.- |
| 2024-04-10 | 15:00:00 | 65.4 | -.- | -.- |
| 2024-04-10 | 16:00:00 | 63.0 | -.- | -.- |
| 2024-04-10 | 17:00:00 | 66.8 | -.- | -.- |
| 2024-04-10 | 18:00:00 | 50.1 | -.- | -.- |
| 2024-04-11 | 09:00:00 | 63.9 | -.- | -.- |
| 2024-04-11 | 10:00:00 | 67.4 | -.- | -.- |
| 2024-04-11 | 11:00:00 | 66.0 | -.- | -.- |
| 2024-04-11 | 12:00:00 | 66.7 | -.- | -.- |
| 2024-04-11 | 13:00:00 | 62.0 | -.- | -.- |
| 2024-04-11 | 14:00:00 | 69.6 | -.- | -.- |
| 2024-04-11 | 15:00:00 | 64.8 | -.- | -.- |
| 2024-04-11 | 16:00:00 | 67.7 | -.- | -.- |
| 2024-04-11 | 17:00:00 | 61.0 | -.- | -.- |
| 2024-04-11 | 18:00:00 | 50.3 | 65.7 | -.- |
| 2024-04-12 | 09:00:00 | 64.3 | -.- | -.- |
| 2024-04-12 | 10:00:00 | 69.1 | -.- | -.- |
| 2024-04-12 | 11:00:00 | 72.4 | -.- | -.- |
| 2024-04-12 | 12:00:00 | 70.7 | -.- | -.- |
| 2024-04-12 | 14:00:00 | 66.0 | -.- | -.- |
| 2024-04-12 | 15:00:00 | 65.6 | -.- | -.- |
| 2024-04-12 | 16:00:00 | 64.7 | -.- | -.- |
| 2024-04-12 | 17:00:00 | 49.3 | -.- | -.- |
| 2024-04-12 | 18:00:00 | 49.4 | -.- | -.- |
| 2024-04-13 | 09:00:00 | 50.1 | -.- | -.- |
| 2024-04-13 | 10:00:00 | 47.8 | -.- | -.- |
| 2024-04-13 | 11:00:00 | 49.2 | -.- | -.- |
| 2024-04-13 | 12:00:00 | 46.8 | -.- | -.- |
| 2024-04-13 | 13:00:00 | 49.2 | -.- | 48.8 |

Location 2 – Time History Data




Daily noise trigger level (75 dB LAeq,0800-1800 hours, LAeq,0800-1300 hours)
Hourly noise action level (78 dB LAeq, 1 hour)
Noise level, LAeq, 1hour
Daily noise level (dB LAeq,0800-1800 hours, LAeq,0800-1300 hours)
Data unavailable

3.10 There was 54% data coverage at Location 2 during construction hours for the monitoring period covered by this report. The monitor was offline between the following hours due to a drained battery:

- 18:00 Saturday 6th April & 13:00 Wednesday 10th April. It is understood that a potentially faulty battery was reinstalled at this location between these times. However, due to the monitor having since been connected to site power (discussed further below), it is expected that this will not cause any further data losses going forward.

- 13:00 & 15:00 on Friday 12th April

3.11 Cass Allen attended site on Friday 12th April to connect the noise & dust monitors at Locations 1, 2 & 3 to site power. Consequently, it is expected that there will be far fewer interruptions in the data collection going forward. No exceedances of the project hourly noise criteria of 78 dB LAeq nor the daily project noise limit of 75 dB LAeq (0800-1800 hours) were recorded during the monitoring period covered by this report.

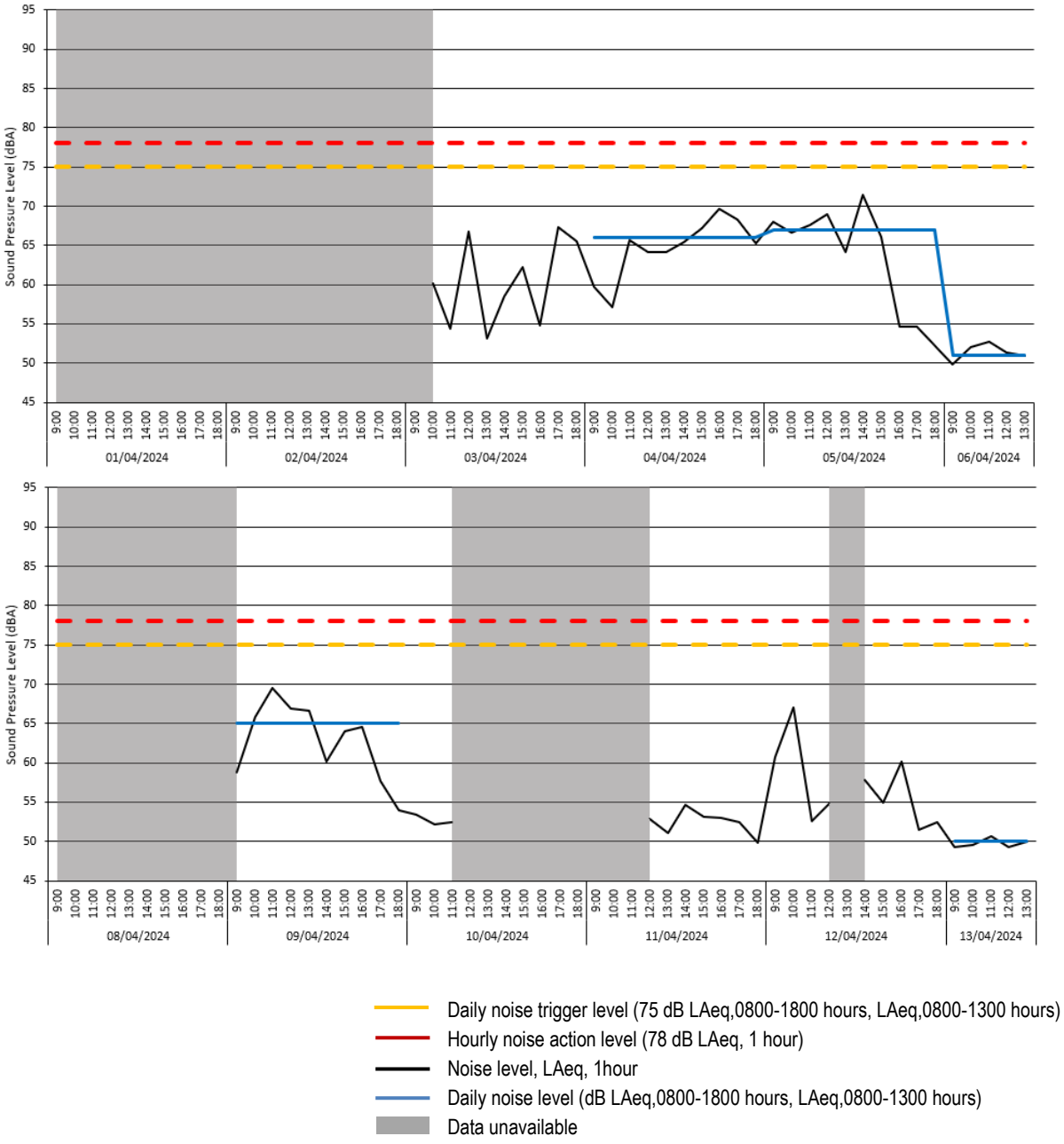
3.12 A printout showing the raw data for the noise monitor at Location 3 is shown overleaf.

Location 3 – Raw Data

# Broadband Results

| Date [YYYY-MM-DD] | Time [hh:mm:ss] | LAeq(60min) [dB] | LAeq(10hr) [dB] | LAeq(5hr) [dB] |
|---|---|---|---|---|
| 2024-04-03 | 10:00:00 | 60.2 | -.- | -.- |
| 2024-04-03 | 11:00:00 | 54.4 | -.- | -.- |
| 2024-04-03 | 12:00:00 | 66.7 | -.- | -.- |
| 2024-04-03 | 13:00:00 | 53.1 | -.- | -.- |
| 2024-04-03 | 14:00:00 | 58.5 | -.- | -.- |
| 2024-04-03 | 15:00:00 | 62.2 | -.- | -.- |
| 2024-04-03 | 16:00:00 | 54.8 | -.- | -.- |
| 2024-04-03 | 17:00:00 | 67.3 | -.- | -.- |
| 2024-04-03 | 18:00:00 | 65.5 | -.- | -.- |
| 2024-04-04 | 09:00:00 | 59.7 | -.- | -.- |
| 2024-04-04 | 10:00:00 | 57.1 | -.- | -.- |
| 2024-04-04 | 11:00:00 | 65.6 | -.- | -.- |
| 2024-04-04 | 12:00:00 | 64.2 | -.- | -.- |
| 2024-04-04 | 13:00:00 | 64.1 | -.- | -.- |
| 2024-04-04 | 14:00:00 | 65.4 | -.- | -.- |
| 2024-04-04 | 15:00:00 | 67.2 | -.- | -.- |
| 2024-04-04 | 16:00:00 | 69.6 | -.- | -.- |
| 2024-04-04 | 17:00:00 | 68.3 | -.- | -.- |
| 2024-04-04 | 18:00:00 | 65.2 | 65.8 | -.- |
| 2024-04-05 | 09:00:00 | 68.0 | -.- | -.- |
| 2024-04-05 | 10:00:00 | 66.6 | -.- | -.- |
| 2024-04-05 | 11:00:00 | 67.6 | -.- | -.- |
| 2024-04-05 | 12:00:00 | 69.0 | -.- | -.- |
| 2024-04-05 | 13:00:00 | 64.2 | -.- | -.- |
| 2024-04-05 | 14:00:00 | 71.4 | -.- | -.- |
| 2024-04-05 | 15:00:00 | 66.1 | -.- | -.- |
| 2024-04-05 | 16:00:00 | 54.7 | -.- | -.- |
| 2024-04-05 | 17:00:00 | 54.6 | -.- | -.- |
| 2024-04-05 | 18:00:00 | 52.2 | 66.6 | -.- |
| 2024-04-06 | 09:00:00 | 49.8 | -.- | -.- |
| 2024-04-06 | 10:00:00 | 52.0 | -.- | -.- |
| 2024-04-06 | 11:00:00 | 52.7 | -.- | -.- |
| 2024-04-06 | 12:00:00 | 51.3 | -.- | -.- |
| 2024-04-06 | 13:00:00 | 50.9 | -.- | 51.4 |
| 2024-04-07 | 18:00:00 | -.- | 53.3 | -.- |
| 2024-04-08 | 09:00:00 | 60.8 | -.- | -.- |
| 2024-04-08 | 10:00:00 | 67.9 | -.- | -.- |
| 2024-04-08 | 11:00:00 | 51.4 | -.- | -.- |
| 2024-04-08 | 12:00:00 | 52.3 | -.- | -.- |
| 2024-04-08 | 13:00:00 | 52.5 | -.- | -.- |
| 2024-04-08 | 14:00:00 | 59.9 | -.- | -.- |
| 2024-04-08 | 15:00:00 | 56.8 | -.- | -.- |
| 2024-04-08 | 16:00:00 | 70.0 | -.- | -.- |
| 2024-04-08 | 17:00:00 | 64.4 | -.- | -.- |
| 2024-04-08 | 18:00:00 | 52.3 | 63.5 | -.- |
| 2024-04-09 | 09:00:00 | 58.8 | -.- | -.- |
| 2024-04-09 | 10:00:00 | 65.8 | -.- | -.- |
| 2024-04-09 | 11:00:00 | 69.5 | -.- | -.- |
| 2024-04-09 | 12:00:00 | 66.9 | -.- | -.- |
| 2024-04-09 | 13:00:00 | 66.6 | -.- | -.- |
| 2024-04-09 | 14:00:00 | 60.2 | -.- | -.- |
| 2024-04-09 | 15:00:00 | 64.0 | -.- | -.- |
| 2024-04-09 | 16:00:00 | 64.6 | -.- | -.- |
| 2024-04-09 | 17:00:00 | 57.7 | -.- | -.- |
| 2024-04-09 | 18:00:00 | 53.9 | 64.8 | -.- |
| 2024-04-10 | 09:00:00 | 53.4 | -.- | -.- |
| 2024-04-10 | 10:00:00 | 52.2 | -.- | -.- |
| 2024-04-10 | 11:00:00 | 52.4 | -.- | -.- |
| 2024-04-11 | 12:00:00 | 52.8 | -.- | -.- |
| 2024-04-11 | 13:00:00 | 51.1 | -.- | -.- |
| 2024-04-11 | 14:00:00 | 54.7 | -.- | -.- |
| 2024-04-11 | 15:00:00 | 53.1 | -.- | -.- |
| 2024-04-11 | 16:00:00 | 53.0 | -.- | -.- |
| 2024-04-11 | 17:00:00 | 52.5 | -.- | -.- |
| 2024-04-11 | 18:00:00 | 49.8 | -.- | -.- |
| 2024-04-12 | 09:00:00 | 60.7 | -.- | -.- |
| 2024-04-12 | 10:00:00 | 67.0 | -.- | -.- |
| 2024-04-12 | 11:00:00 | 52.6 | -.- | -.- |
| 2024-04-12 | 12:00:00 | 54.8 | -.- | -.- |
| 2024-04-12 | 14:00:00 | 57.8 | -.- | -.- |
| 2024-04-12 | 15:00:00 | 54.9 | -.- | -.- |
| 2024-04-12 | 16:00:00 | 60.2 | -.- | -.- |
| 2024-04-12 | 17:00:00 | 51.5 | -.- | -.- |
| 2024-04-12 | 18:00:00 | 52.4 | -.- | -.- |
| 2024-04-13 | 09:00:00 | 49.3 | -.- | -.- |
| 2024-04-13 | 10:00:00 | 49.6 | -.- | -.- |
| 2024-04-13 | 11:00:00 | 50.7 | -.- | -.- |
| 2024-04-13 | 12:00:00 | 49.3 | -.- | -.- |
| 2024-04-13 | 13:00:00 | 50.0 | -.- | 49.9 |

Location 3 – Time-history graph




3.13 There was 66% data coverage at Location 3 during construction hours for the monitoring period covered by this report. The monitor was offline between the following hours, due to a drained battery:

- 11:00 Wednesday 10th April and 12:00 Thursday 11th April;
- 12:00 & 14:00 Friday 12th April.

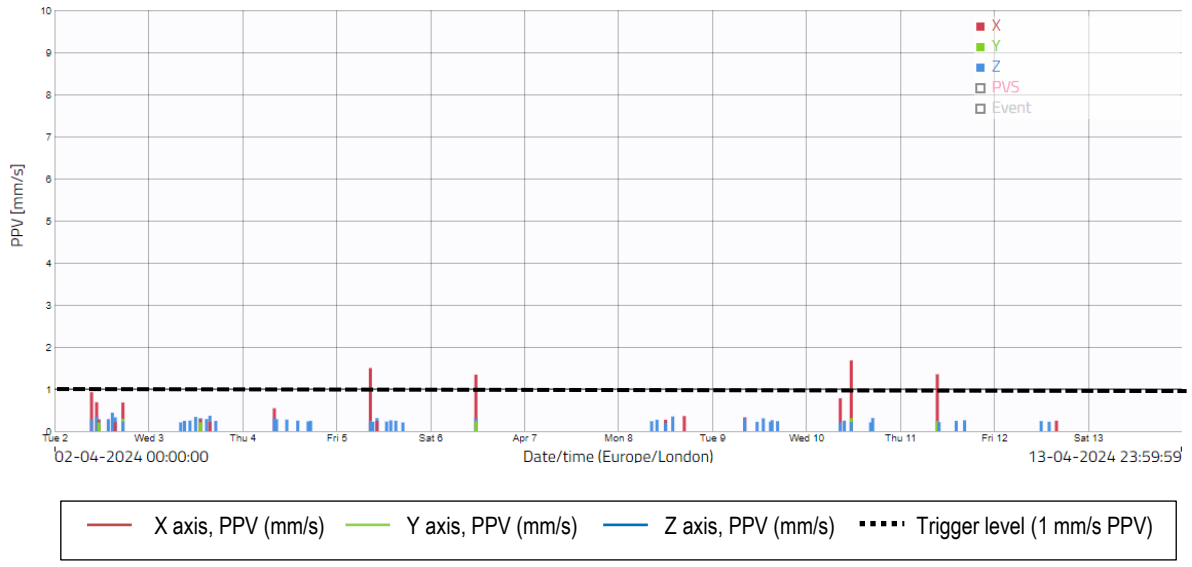
3.14 No exceedances of the project hourly noise criteria of 78 dB LAeq nor the daily project noise limit of 75 dB LAeq (0800-1800 hours) were recorded during the monitoring period covered by this report.

**Vibration Monitoring Results**

Location 1 – Raw data

| Measuring point: | Period: | Order | Value | Date | Time |
|---|---|---|---|---|---|
| Holloway - L1 | 02/04/2024 to 13/04/2024 | 1 | 1.71 | 10/04/2024 | 11:33 |
| | | 2 | 1.52 | 05/04/2024 | 08:42 |
| Criteria mm/s PVS | Exceedances | 3 | 1.36 | 11/04/2024 | 09:32 |
| 1.0 | 5 | 4 | 1.35 | 06/04/2024 | 11:40 |
| | | 5 | 1.21 | 06/04/2024 | 11:41 |
| | | 6 | 0.93 | 02/04/2024 | 09:28 |
| | | 7 | 0.79 | 10/04/2024 | 08:45 |
| | | 8 | 0.70 | 11/04/2024 | 09:36 |
| | | 9 | 0.69 | 02/04/2024 | 10:46 |
| | | 10 | 0.68 | 02/04/2024 | 17:29 |

Location 1 – Time-history graph



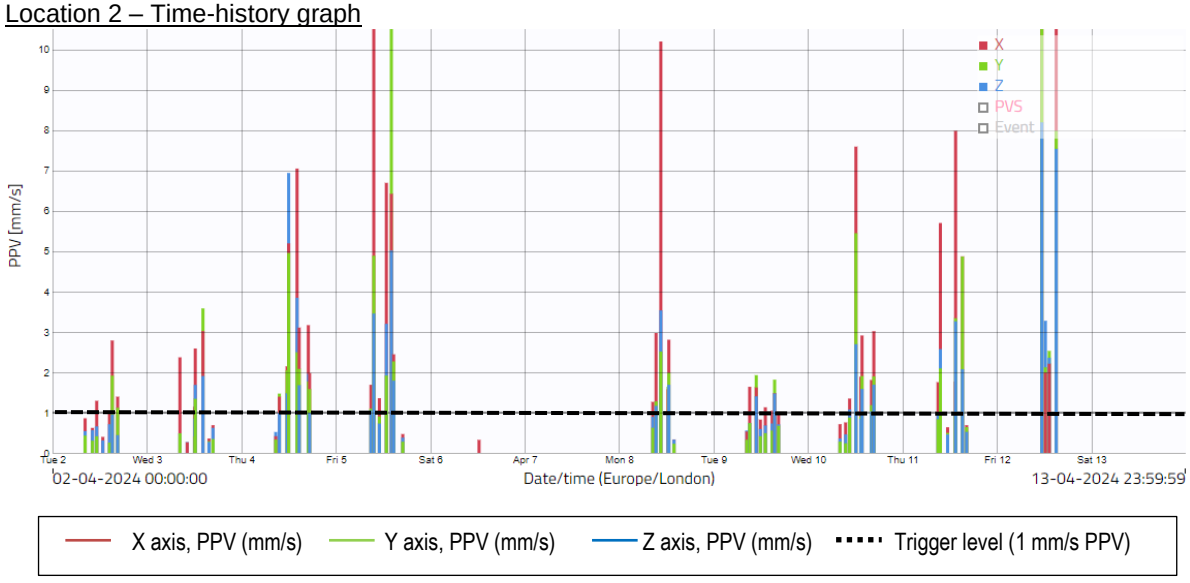

3.15 There was 100% data coverage at Location 1 during construction hours for the monitoring period covered by this report. There were five exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The highest recorded vibration level occurred on Wednesday 10th April at 11:33, with a recorded level of 1.7 mm/s PPV. It is worth noting from the raw data above that the exceedances are sporadic and are likely to have been caused by individual, short-lived events, rather than continuous activity at this location. This will continue to be monitored.

3.16 The majority of exceedances at this location are believed to be due to non-construction related activities. In this location, it is likely that the residents opening and closing the main door to the residential building will cause occasional vibration spikes, given that the monitor is located on the same facade as the doors. Furthermore, the site team confirmed that the alert generated at 08:42 on Friday 5th April (with a measured level of 1.52 mm/s PPV) was not caused by site activity, as no works were taking place in the area at the time. It is possible that the remaining exceedances recorded at this location over the current monitoring period were also caused by non-construction related activity.

Location 2 – Raw data

| Measuring point: | Period: | Order | Value | Date | Time | Order | Value | Date | Time | Order | Value | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Holloway - L2 | 02/04/2024 to 13/04/2024 | 1 | 93.81 | 12/04/2024 | 11:26 | 31 | 3.33 | 04/04/2024 | 17:01 | 61 | 2.45 | 04/04/2024 | 14:49 |
| | | 2 | 20.03 | 05/04/2024 | 14:07 | 32 | 3.28 | 03/04/2024 | 14:03 | 62 | 2.43 | 11/04/2024 | 09:36 |
| Criteria mm/s PVS | Exceedances | 3 | 12.94 | 12/04/2024 | 15:05 | 33 | 3.26 | 12/04/2024 | 13:19 | 63 | 2.42 | 04/04/2024 | 11:26 |
| 1.0 | 458 | 4 | 11.73 | 05/04/2024 | 09:39 | 34 | 3.26 | 04/04/2024 | 16:14 | 64 | 2.40 | 12/04/2024 | 10:59 |
| | | 5 | 10.64 | 12/04/2024 | 11:39 | 35 | 3.24 | 04/04/2024 | 12:04 | 65 | 2.40 | 08/04/2024 | 09:53 |
| | | 6 | 10.39 | 08/04/2024 | 10:36 | 36 | 3.20 | 11/04/2024 | 15:16 | 66 | 2.40 | 04/04/2024 | 15:38 |
| | | 7 | 9.05 | 10/04/2024 | 12:11 | 37 | 3.15 | 10/04/2024 | 11:28 | 67 | 2.37 | 03/04/2024 | 08:23 |
| | | 8 | 8.84 | 12/04/2024 | 11:03 | 38 | 3.12 | 03/04/2024 | 12:17 | 68 | 2.34 | 03/04/2024 | 13:51 |
| | | 9 | 8.33 | 11/04/2024 | 13:31 | 39 | 3.10 | 10/04/2024 | 16:44 | 69 | 2.34 | 04/04/2024 | 14:53 |
| | | 10 | 7.55 | 04/04/2024 | 14:09 | 40 | 3.08 | 02/04/2024 | 15:11 | 70 | 2.32 | 03/04/2024 | 13:58 |
| | | 11 | 7.19 | 04/04/2024 | 12:01 | 41 | 3.08 | 04/04/2024 | 15:13 | 71 | 2.28 | 04/04/2024 | 11:38 |
| | | 12 | 7.10 | 04/04/2024 | 13:05 | 42 | 3.06 | 08/04/2024 | 09:23 | 72 | 2.24 | 10/04/2024 | 11:38 |
| | | 13 | 7.05 | 05/04/2024 | 12:51 | 43 | 3.03 | 12/04/2024 | 11:16 | 73 | 2.23 | 04/04/2024 | 11:22 |
| | | 14 | 6.82 | 12/04/2024 | 11:01 | 44 | 3.01 | 10/04/2024 | 13:44 | 74 | 2.22 | 04/04/2024 | 11:25 |
| | | 15 | 6.47 | 05/04/2024 | 13:29 | 45 | 2.98 | 05/04/2024 | 14:42 | 75 | 2.21 | 10/04/2024 | 11:49 |
| | | 16 | 6.23 | 12/04/2024 | 11:40 | 46 | 2.97 | 12/04/2024 | 11:21 | 76 | 2.19 | 08/04/2024 | 13:52 |
| | | 17 | 6.19 | 12/04/2024 | 11:04 | 47 | 2.92 | 08/04/2024 | 12:38 | 77 | 2.17 | 03/04/2024 | 14:05 |
| | | 18 | 5.89 | 11/04/2024 | 09:39 | 48 | 2.78 | 12/04/2024 | 11:00 | 78 | 2.16 | 03/04/2024 | 13:46 |
| | | 19 | 5.55 | 11/04/2024 | 15:15 | 49 | 2.77 | 08/04/2024 | 13:01 | 79 | 2.15 | 04/04/2024 | 17:20 |
| | | 20 | 5.44 | 11/04/2024 | 15:14 | 50 | 2.76 | 12/04/2024 | 11:02 | 80 | 2.15 | 02/04/2024 | 15:32 |
| | | 21 | 4.11 | 05/04/2024 | 12:52 | 51 | 2.65 | 10/04/2024 | 16:30 | 81 | 2.14 | 03/04/2024 | 13:48 |
| | | 22 | 3.72 | 11/04/2024 | 13:53 | 52 | 2.64 | 04/04/2024 | 11:37 | 82 | 2.13 | 10/04/2024 | 16:21 |
| | | 23 | 3.70 | 12/04/2024 | 11:11 | 53 | 2.62 | 08/04/2024 | 09:18 | 83 | 2.12 | 08/04/2024 | 09:31 |
| | | 24 | 3.67 | 03/04/2024 | 14:14 | 54 | 2.61 | 10/04/2024 | 14:00 | 84 | 2.11 | 10/04/2024 | 11:58 |
| | | 25 | 3.58 | 03/04/2024 | 14:11 | 55 | 2.59 | 04/04/2024 | 11:39 | 85 | 2.10 | 10/04/2024 | 14:34 |
| | | 26 | 3.49 | 12/04/2024 | 12:20 | 56 | 2.56 | 04/04/2024 | 11:10 | 86 | 2.10 | 12/04/2024 | 15:04 |
| | | 27 | 3.46 | 04/04/2024 | 14:41 | 57 | 2.51 | 04/04/2024 | 11:36 | 87 | 2.10 | 12/04/2024 | 12:19 |
| | | 28 | 3.40 | 12/04/2024 | 11:18 | 58 | 2.49 | 03/04/2024 | 14:06 | 88 | 2.09 | 03/04/2024 | 14:10 |
| | | 29 | 3.38 | 03/04/2024 | 14:08 | 59 | 2.48 | 12/04/2024 | 13:16 | 89 | 2.09 | 04/04/2024 | 16:53 |
| | | 30 | 3.34 | 11/04/2024 | 15:13 | 60 | 2.46 | 09/04/2024 | 15:31 | 90 | 2.09 | 05/04/2024 | 13:37 |

Location 2 – Time-history graph



3.17 There was 100% data coverage at Location 2 during construction hours for the monitoring period covered by this report. There were 458 exceedances of the project vibration trigger level of 1.0 mm/s PPV, which are shown in the raw data and graph above. The highest recorded vibration level occurred on Friday 12th April at 11:26, with a recorded level of 93.8 mm/s PPV. A high vibration level of this magnitude is typically caused by the sensor being accidentally knocked, rather than construction activity. This is supported by the fact that no other similar vibration levels were recorded, and this was a one-off reading.

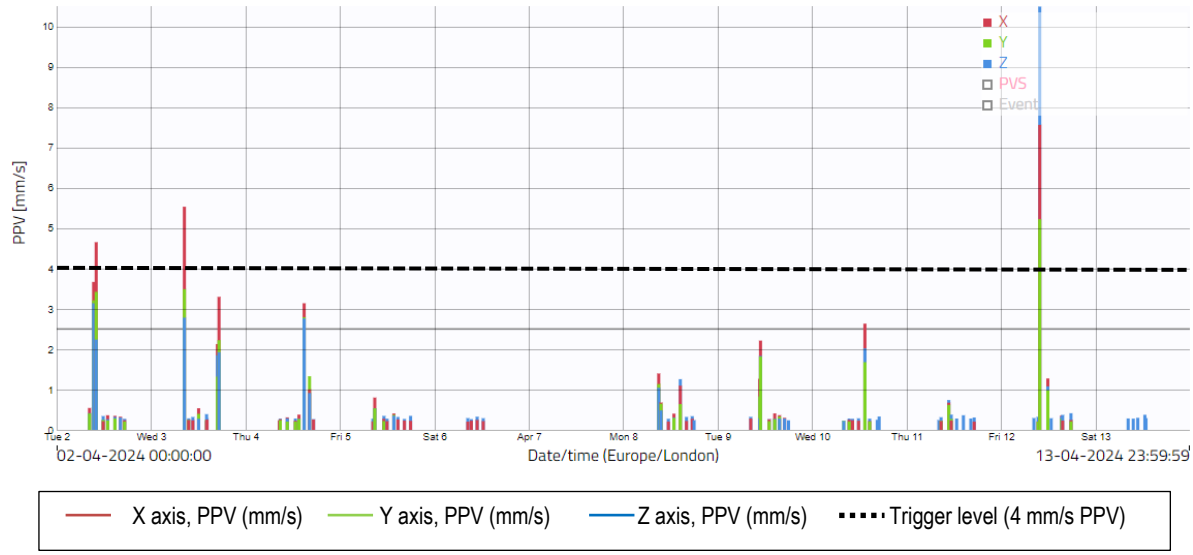
3.18 It is understood that the majority of exceedances at this location were caused by piling work at Blocks C1 & E1, which was completed on Monday 15th April. It is worth noting that higher than usual vibration levels were recorded at this location during the fortnight covered by this report. It is understood that the project EHO observed this work taking place during a site visit. Furthermore, Cass Allen are not aware of any complaints raised at this location during these works.

3.19 Additionally, one of the residents behind the monitoring location has some form of workshop with power tools at the rear of their garden. Any operation of these tools could also generate vibration alerts.

Location 3 – Raw data

| Measuring point: | Period: | Order | Value | Date | Time |
|---|---|---|---|---|---|
| Holloway - L3 | 02/04/2024 to 13/04/2024 | 1 | 12.65 | 12/04/2024 | 09:50 |
| | | 2 | 6.09 | 03/04/2024 | 08:27 |
| Criteria mm/s PVS | Exceedances | 3 | 5.88 | 02/04/2024 | 10:02 |
| 4 | 5 | 4 | 4.94 | 02/04/2024 | 10:05 |
| | | 5 | 4.49 | 02/04/2024 | 09:23 |
| | | 6 | 3.98 | 03/04/2024 | 17:15 |
| | | 7 | 3.63 | 04/04/2024 | 14:53 |
| | | 8 | 3.63 | 02/04/2024 | 08:27 |
| | | 9 | 3.63 | 02/04/2024 | 09:09 |
| | | 10 | 3.57 | 04/04/2024 | 15:07 |

Location 3 – Time-history graph




3.20 There was 100% data coverage at Location 3 during construction hours for the monitoring period covered by this report. There were five exceedances of the project vibration trigger level of 4.0 mm/s PPV, which are shown in the raw data and graph above. The highest recorded vibration level occurred on Friday 12th April at 09:51, with a recorded level of 12.6 mm/s PPV.

3.21 It is understood that the majority of exceedances were likely to have been caused onsite vehicles moving material within the vicinity of the monitor – this has been confirmed by the site team. It is possible that the higher vibration levels recorded over this period were also caused by vehicle movements (i.e. when a lorry drives over an uneven part of ground near the monitor, a high vibration level can be recorded).

3.22 In addition, it is our understanding that one of the residents behind the monitoring location has some form of workshop with power tools at the rear of their garden. Any operation of these tools could also generate vibration alerts.

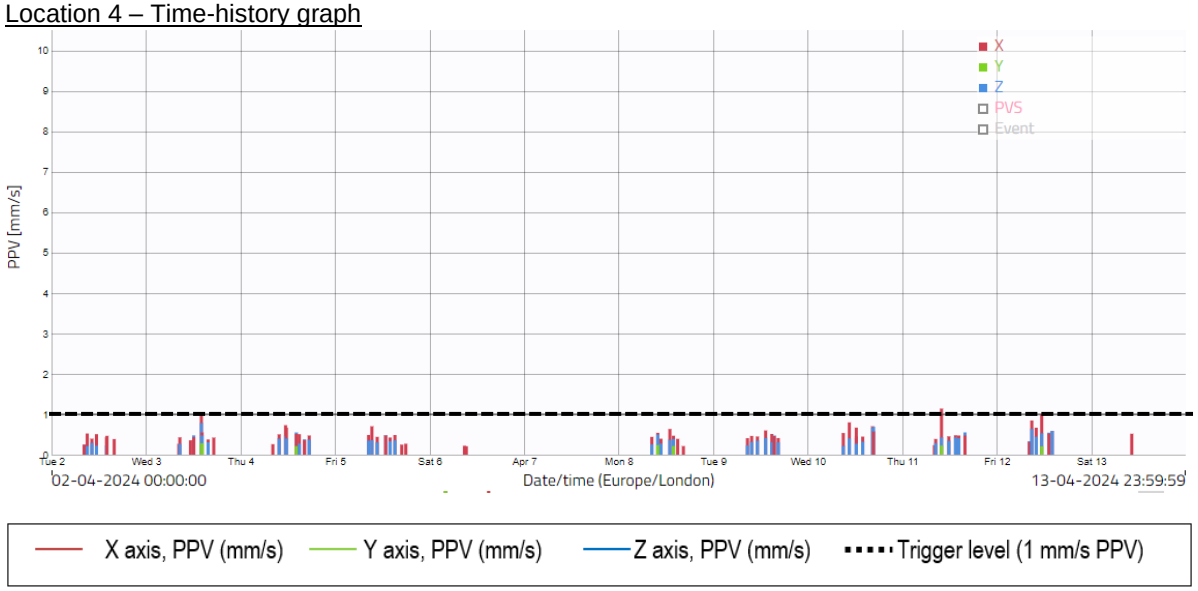
3.23 However, due to the proximity between the vibration sensor and the nearest sensitive receptor, it follows that the vibration levels at this position would have been lower than shown at the sensor location.

3.24 Cass Allen will continue to review noise and vibration emissions and advise on any further practicable measures to minimise vibration.

Location 4 – Raw data

| Measuring point: | Period: | Order | Value | Date | Time |
|---|---|---|---|---|---|
| Holloway - L4 | 02/04/2024 to 13/04/2024 | 1 | 1.17 | 11/04/2024 | 09:59 |
| | | 2 | 1.12 | 03/04/2024 | 14:03 |
| Criteria mm/s PVS | Exceedances | 3 | 1.04 | 12/04/2024 | 11:26 |
| 1.0 | 3 | 4 | 0.92 | 03/04/2024 | 13:51 |
| | | 5 | 0.92 | 12/04/2024 | 11:39 |
| | | 6 | 0.88 | 11/04/2024 | 09:55 |
| | | 7 | 0.88 | 12/04/2024 | 08:55 |
| | | 8 | 0.88 | 12/04/2024 | 09:26 |
| | | 9 | 0.86 | 11/04/2024 | 10:00 |
| | | 10 | 0.85 | 10/04/2024 | 10:35 |

Location 4 – Time-history graph




3.25 There was 100% data coverage at Location 4 during construction hours for the monitoring period covered by this report. There were three exceedances of the project vibration trigger level of 1.0 mm/s PPV, which are shown in the raw data and graph above. The highest recorded vibration level occurred on Thursday 11th April at 09:59, with a recorded level of 1.2 mm/s PPV. Although this recorded level is a relatively small exceedance of the vibration trigger level, this will continue to be monitored. It is also worth noting that the vibration sensor is fixed to the garden wall of a private residential dwelling and the monitor is located next to a child's play area. It is, therefore, possible that exceedances at this location may have been caused by non-construction related activity.