

# Holloway Park, London

## Construction Monitoring Report

Client: London Square  
Ref: CM77-22405-R0  
Date: 2 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 Monday 18<sup>th</sup> & Saturday 23<sup>rd</sup> March 2024. The monitoring is being carried out in accordance with the methodology set out in the Cass Allen response (reference LR03-22405-R0 dated 27 October 2023) to a S60 warning letter issued to Downwell Demolition Ltd.

### 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

#### **Horizon**

- Demobilising on site from the recently completed crush works

#### **Pure Logistic**

- General site works
- Changing over fencing from walkways

**Kesel**

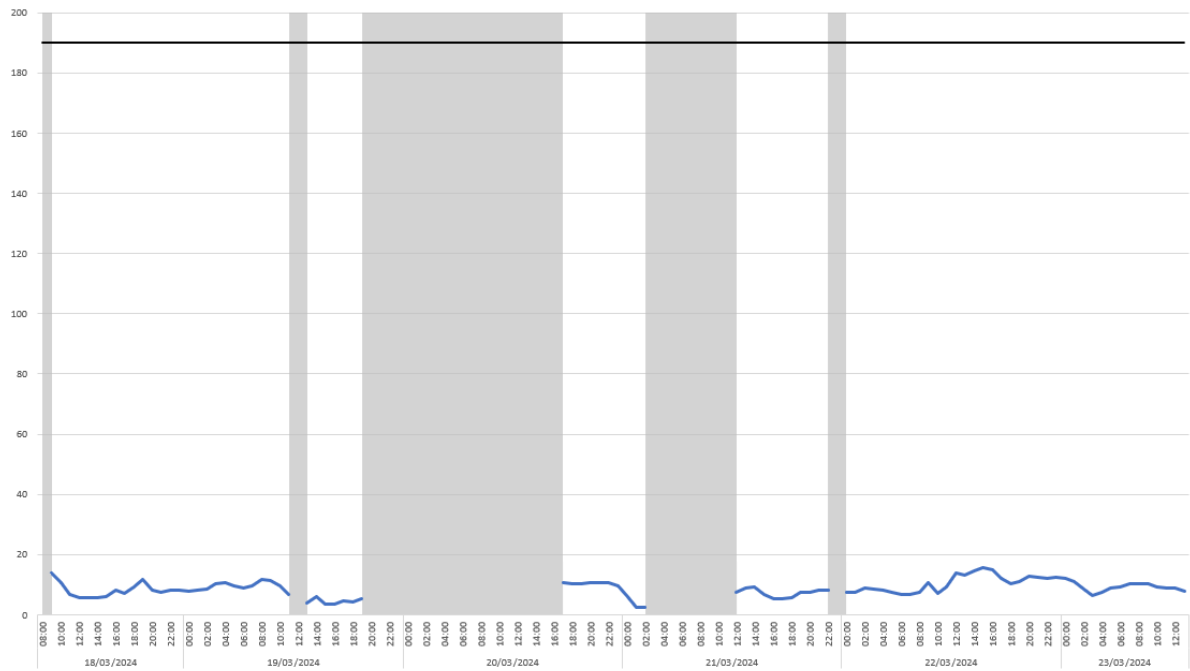
- Refurbishment of new welfare containers

**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



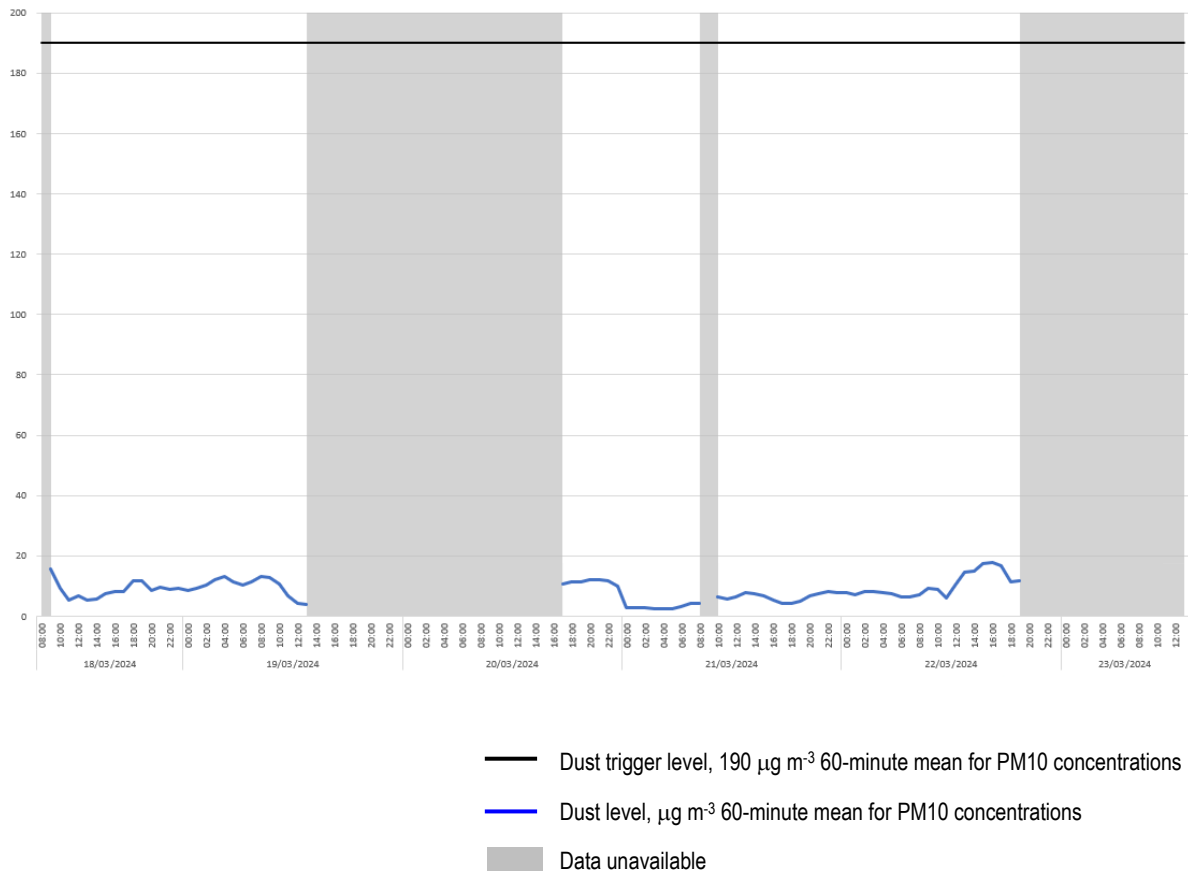
- Dust trigger level, 190 µg m<sup>-3</sup> 60-minute mean for PM10 concentrations
- Dust level, µg m<sup>-3</sup> 60-minute mean for PM10 concentrations
- Data unavailable

3.2 There was 73% data coverage at Location 1 for the monitoring period covered by this report. The monitor was offline between:

- 08:00 & 09:00 on Monday 18<sup>th</sup> March, due to drained battery;
- 19:00 on Tuesday 19<sup>th</sup> March & 17:00 on Wednesday 20<sup>th</sup> March, due to drained battery;
- 02:00 & 12:00 on Thursday 21<sup>st</sup> March, due to drained battery.

3.3 Cass Allen and London Square are intending to connect the monitors to site power as this becomes available at the monitoring locations. This will remove the reliance on battery power – it follows that there would consequently be far fewer interruptions in the data collection going forward. Cass Allen will provide further updates on this in due course. 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

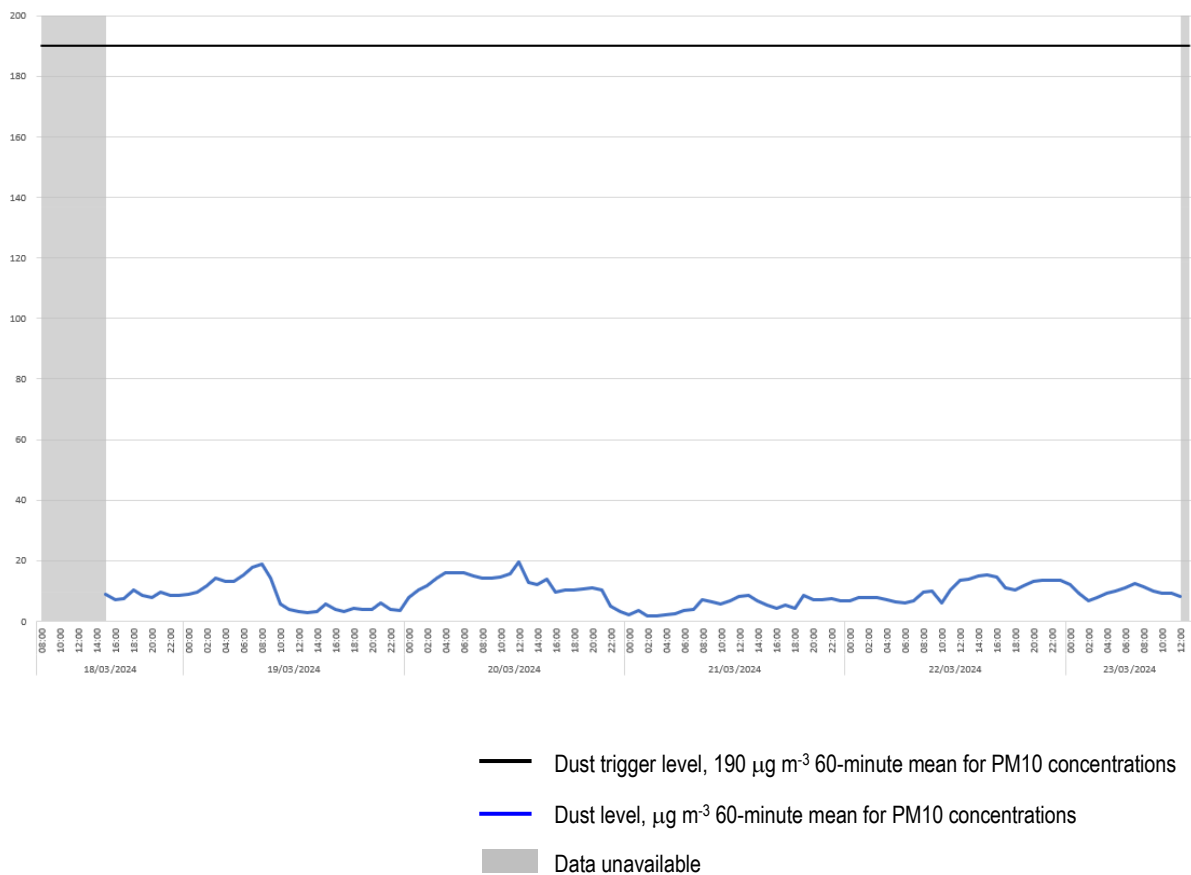


3.4 There was 62% data coverage at Location 2 for the monitoring period covered by this report. The monitor was offline between:

- 08:00 on Monday 18th March, due to drained battery;
- 13:00 on Tuesday 19<sup>th</sup> March & 17:00 on Wednesday 20<sup>th</sup> March, due to drained battery;
- 08:00 & 10:00 on Thursday 21<sup>st</sup> March, due to drained battery;
- 19:00 on Friday 22<sup>nd</sup> March & 13:00 on Saturday 23<sup>rd</sup> March.

- 3.5 There were two extended periods when the monitor at this location was offline due to a drained battery. Cass Allen liaised with the site team during these periods to ensure that the battery changes were carried out. However, it is understood that there were several occasions when previously damaged/faulty batteries were accidentally swapped in by the site team. We will continue to work with the site team to avoid a repeat data loss for the same reason – until such a time when the monitors can be connected site.
- 3.6 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



- 3.7 There was 85% data coverage at Location 3 for the monitoring period covered by this report. The monitor was offline between:
- 08:00 & 14:00 on Monday 18<sup>th</sup> March, due to drained battery;
  - 12:00 on Friday 15<sup>th</sup> March, due to drained battery;
- 3.8 No exceedances of the project dust criteria of 190 micrograms per cubic meter were recorded during the monitoring period covered by this report.

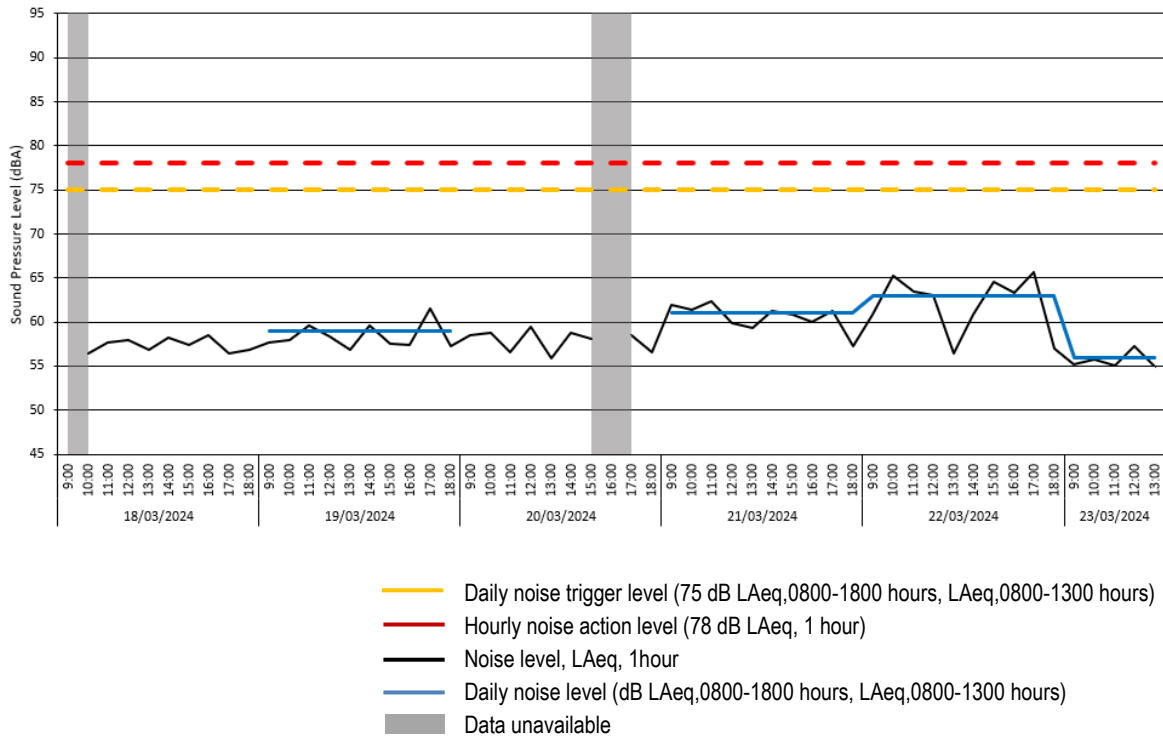
## Noise Monitoring Results

### 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]
2024-03-18	10:00:00	56.5	--	--	--
2024-03-18	11:00:00	57.7	--	--	--
2024-03-18	12:00:00	58.0	--	--	--
2024-03-18	13:00:00	56.9	--	--	--
2024-03-18	14:00:00	58.2	--	--	--
2024-03-18	15:00:00	57.4	--	--	--
2024-03-18	16:00:00	58.5	--	--	--
2024-03-18	17:00:00	56.5	--	--	--
2024-03-18	18:00:00	56.8	--	--	--
2024-03-19	09:00:00	57.7	--	--	--
2024-03-19	10:00:00	57.9	--	--	--
2024-03-19	11:00:00	59.6	--	--	--
2024-03-19	12:00:00	58.4	--	--	--
2024-03-19	13:00:00	56.9	--	--	--
2024-03-19	14:00:00	59.6	--	--	--
2024-03-19	15:00:00	57.6	--	--	--
2024-03-19	16:00:00	57.4	--	--	--
2024-03-19	17:00:00	61.5	--	--	--
2024-03-19	18:00:00	57.2	--	58.6	--
2024-03-20	09:00:00	58.5	--	--	--
2024-03-20	10:00:00	58.8	--	--	--
2024-03-20	11:00:00	56.6	--	--	--
2024-03-20	12:00:00	59.4	--	--	--
2024-03-20	13:00:00	55.9	--	--	--
2024-03-20	14:00:00	58.8	--	--	--
2024-03-20	15:00:00	58.1	--	--	--
2024-03-20	17:00:00	58.5	--	--	--
2024-03-20	18:00:00	56.6	--	--	--
2024-03-21	09:00:00	61.9	--	--	--
2024-03-21	10:00:00	61.4	--	--	--
2024-03-21	11:00:00	62.4	--	--	--
2024-03-21	12:00:00	59.9	--	--	--
2024-03-21	13:00:00	59.3	--	--	--
2024-03-21	14:00:00	61.3	--	--	--
2024-03-21	15:00:00	60.9	--	--	--
2024-03-21	16:00:00	60.0	--	--	--
2024-03-21	17:00:00	61.3	--	--	--
2024-03-21	18:00:00	57.2	--	60.8	--
2024-03-22	09:00:00	60.9	--	--	--
2024-03-22	10:00:00	65.2	--	--	--
2024-03-22	11:00:00	63.4	--	--	--
2024-03-22	12:00:00	63.0	--	--	--
2024-03-22	13:00:00	56.4	--	--	--
2024-03-22	14:00:00	60.9	--	--	--
2024-03-22	15:00:00	64.6	--	--	--
2024-03-22	16:00:00	63.3	--	--	--
2024-03-22	17:00:00	65.6	--	--	--
2024-03-22	18:00:00	57.0	--	62.9	--
2024-03-23	09:00:00	55.2	--	--	--
2024-03-23	10:00:00	55.7	--	--	--
2024-03-23	11:00:00	55.1	--	--	--
2024-03-23	12:00:00	57.3	--	--	--
2024-03-23	13:00:00	54.9	--	--	55.7

### Location 1 – Time History Data



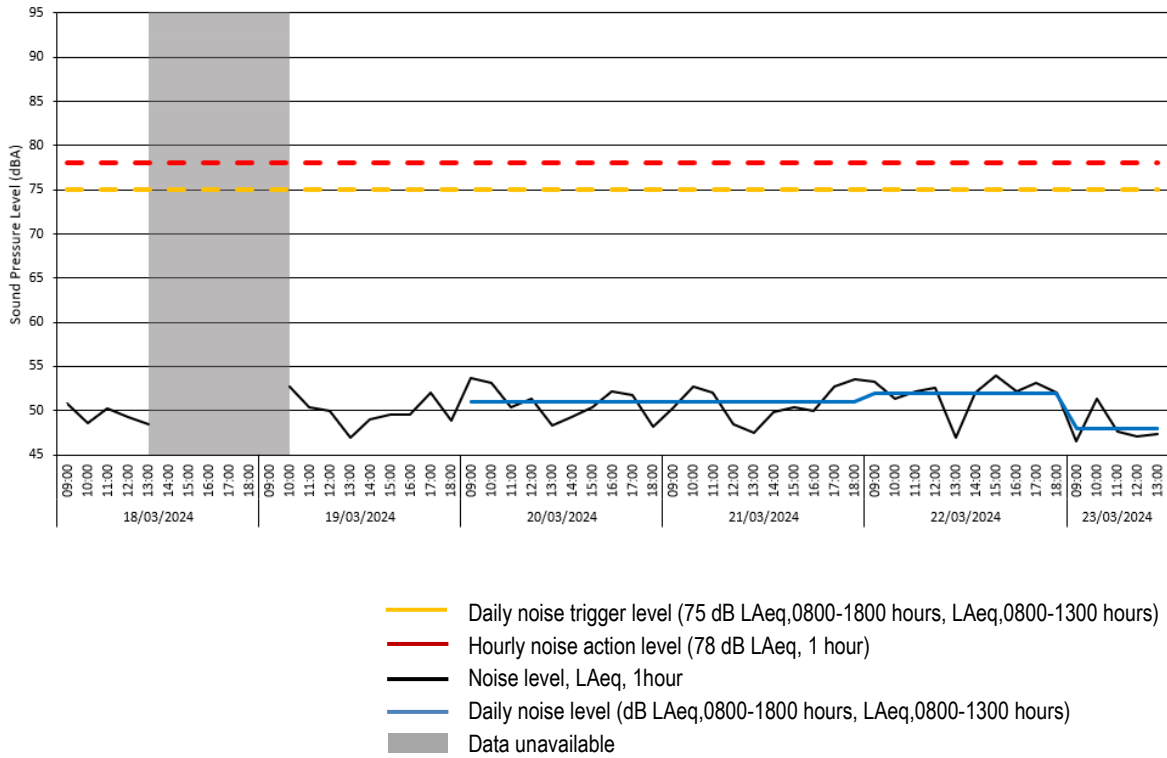
3.9 There was 96% data coverage at Location 1 for the monitoring period covered by this report. The monitor was offline between 08:00 and 10:00 on Monday 18<sup>th</sup> March and between 15:00-17:00 on Tuesday 19<sup>th</sup> March due to a drained battery. No exceedances of the project hourly noise 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]
2024-03-18	09:00:00	50.8	-.-	-.-
2024-03-18	10:00:00	48.6	-.-	-.-
2024-03-18	11:00:00	50.3	-.-	-.-
2024-03-18	12:00:00	49.3	-.-	-.-
2024-03-18	13:00:00	48.5	-.-	-.-
2024-03-19	10:00:00	52.7	-.-	-.-
2024-03-19	11:00:00	50.4	-.-	-.-
2024-03-19	12:00:00	49.9	-.-	-.-
2024-03-19	13:00:00	47.0	-.-	-.-
2024-03-19	14:00:00	49.0	-.-	-.-
2024-03-19	15:00:00	49.6	-.-	-.-
2024-03-19	16:00:00	49.5	-.-	-.-
2024-03-19	17:00:00	52.1	-.-	-.-
2024-03-19	18:00:00	48.9	-.-	-.-
2024-03-20	09:00:00	53.7	-.-	-.-
2024-03-20	10:00:00	53.2	-.-	-.-
2024-03-20	11:00:00	50.4	-.-	-.-
2024-03-20	12:00:00	51.3	-.-	-.-
2024-03-20	13:00:00	48.3	-.-	-.-
2024-03-20	14:00:00	49.3	-.-	-.-
2024-03-20	15:00:00	50.4	-.-	-.-
2024-03-20	16:00:00	52.2	-.-	-.-
2024-03-20	17:00:00	51.7	-.-	-.-
2024-03-20	18:00:00	48.2	51.2	-.-
2024-03-21	09:00:00	50.2	-.-	-.-
2024-03-21	10:00:00	52.7	-.-	-.-
2024-03-21	11:00:00	52.0	-.-	-.-
2024-03-21	12:00:00	48.5	-.-	-.-
2024-03-21	13:00:00	47.5	-.-	-.-
2024-03-21	14:00:00	49.8	-.-	-.-
2024-03-21	15:00:00	50.4	-.-	-.-
2024-03-21	16:00:00	50.0	-.-	-.-
2024-03-21	17:00:00	52.7	-.-	-.-
2024-03-21	18:00:00	53.6	51.1	-.-
2024-03-22	09:00:00	53.3	-.-	-.-
2024-03-22	10:00:00	51.3	-.-	-.-
2024-03-22	11:00:00	52.2	-.-	-.-
2024-03-22	12:00:00	52.6	-.-	-.-
2024-03-22	13:00:00	47.0	-.-	-.-
2024-03-22	14:00:00	52.0	-.-	-.-
2024-03-22	15:00:00	54.0	-.-	-.-
2024-03-22	16:00:00	52.2	-.-	-.-
2024-03-22	17:00:00	53.1	-.-	-.-
2024-03-22	18:00:00	52.0	52.3	-.-
2024-03-23	09:00:00	46.5	-.-	-.-
2024-03-23	10:00:00	51.4	-.-	-.-
2024-03-23	11:00:00	47.6	-.-	-.-
2024-03-23	12:00:00	47.1	-.-	-.-
2024-03-23	13:00:00	47.3	-.-	48.4

### Location 2 – Time History Data



3.10 There was 84% data coverage at Location 2 for the monitoring period covered by this report. The monitor was offline between 14:00 on 18th March and 09:00 on 19th March, due to a drained battery. 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.

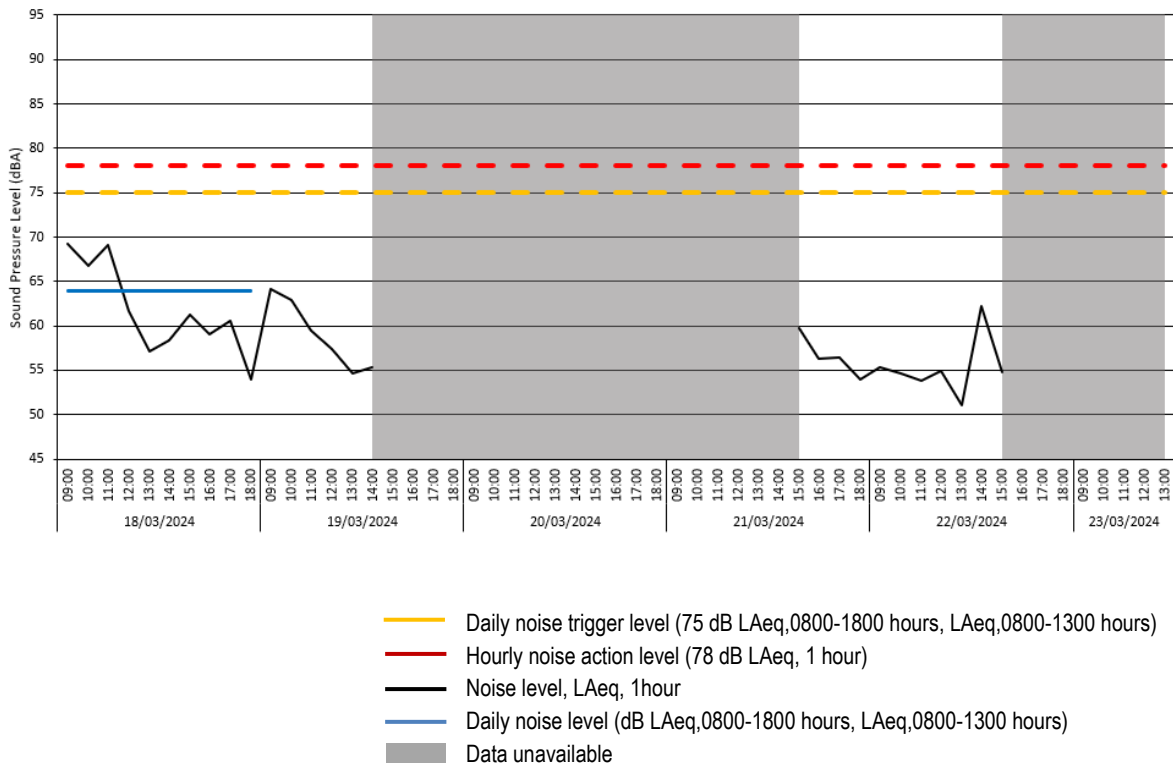


Location 3 – Raw Data

# Broadband Results

Date [YYYY-MM-DD]	Time [hh:mm:ss]	LAeq(60min) [dB]	LAeq(10hr) [dB]	LAeq(5hr) [dB]
2024-03-18	09:00:00	69.3	-.-	-.-
2024-03-18	10:00:00	66.8	-.-	-.-
2024-03-18	11:00:00	69.1	-.-	-.-
2024-03-18	12:00:00	61.7	-.-	-.-
2024-03-18	13:00:00	57.1	-.-	-.-
2024-03-18	14:00:00	58.4	-.-	-.-
2024-03-18	15:00:00	61.3	-.-	-.-
2024-03-18	16:00:00	59.0	-.-	-.-
2024-03-18	17:00:00	60.6	-.-	-.-
2024-03-18	18:00:00	54.0	64.4	-.-
2024-03-19	09:00:00	64.2	-.-	-.-
2024-03-19	10:00:00	62.9	-.-	-.-
2024-03-19	11:00:00	59.4	-.-	-.-
2024-03-19	12:00:00	57.4	-.-	-.-
2024-03-19	13:00:00	54.7	-.-	-.-
2024-03-19	14:00:00	55.3	-.-	-.-
2024-03-21	15:00:00	59.7	-.-	-.-
2024-03-21	16:00:00	56.3	-.-	-.-
2024-03-21	17:00:00	56.5	-.-	-.-
2024-03-21	18:00:00	54.0	-.-	-.-
2024-03-22	09:00:00	55.3	-.-	-.-
2024-03-22	10:00:00	54.7	-.-	-.-
2024-03-22	11:00:00	53.8	-.-	-.-
2024-03-22	12:00:00	54.9	-.-	-.-
2024-03-22	13:00:00	51.1	-.-	-.-
2024-03-22	14:00:00	62.2	-.-	-.-
2024-03-22	15:00:00	54.8	-.-	-.-

### Location 3 – Time-history graph



3.11 There was 45% data coverage at Location 3 for the monitoring period covered by this report. The monitor was offline between:

- 14:00 on Tuesday 19<sup>th</sup> March and 15:00 on Thursday 21<sup>st</sup> March due to a drained battery. As with the dust monitor at Location 2 (described in Paragraph 3.5 above), it is understood that a drained/faulty battery was swapped in during this offline period;
- 15:00 on 22<sup>nd</sup> March and 13:00 on 23<sup>rd</sup> March, due to a drained battery.

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.

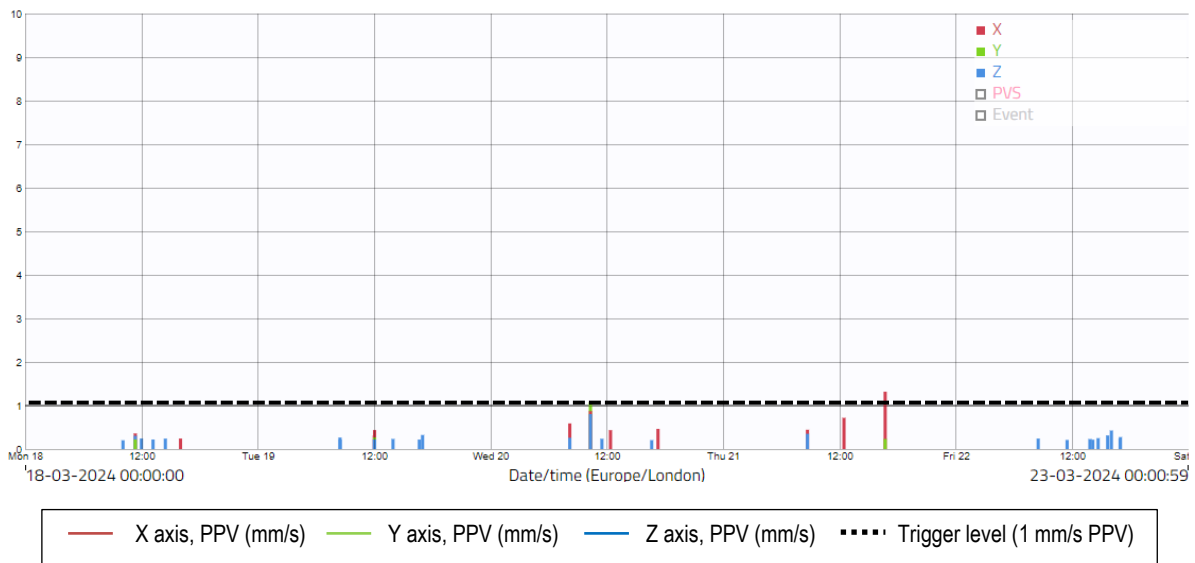
3.12 No exceedances of the project hourly noise criteria of 78 dB LAeq nor the daily project noise limit of 75 dB LAeq (0800-1800 hours) were recorded during the monitoring period covered by this report.

## Vibration Monitoring Results

### Location 1 – Raw data

Measuring point:	Period:	Order	Value	Date	Time
Holloway - L1	18/03/2024 to 23/03/2024	1	1.34	21/03/2024	16:43
		2	1.34	20/03/2024	10:19
Criteria mm/s PVS	Exceedances	3	1.09	23/03/2024	11:03
1.0	3	4	0.73	21/03/2024	12:28
		5	0.61	20/03/2024	08:11
		6	0.57	23/03/2024	11:59
		7	0.54	23/03/2024	10:53
		8	0.49	23/03/2024	10:30
		9	0.48	23/03/2024	12:04
		10	0.47	20/03/2024	17:17

### Location 1 – Time-history graph



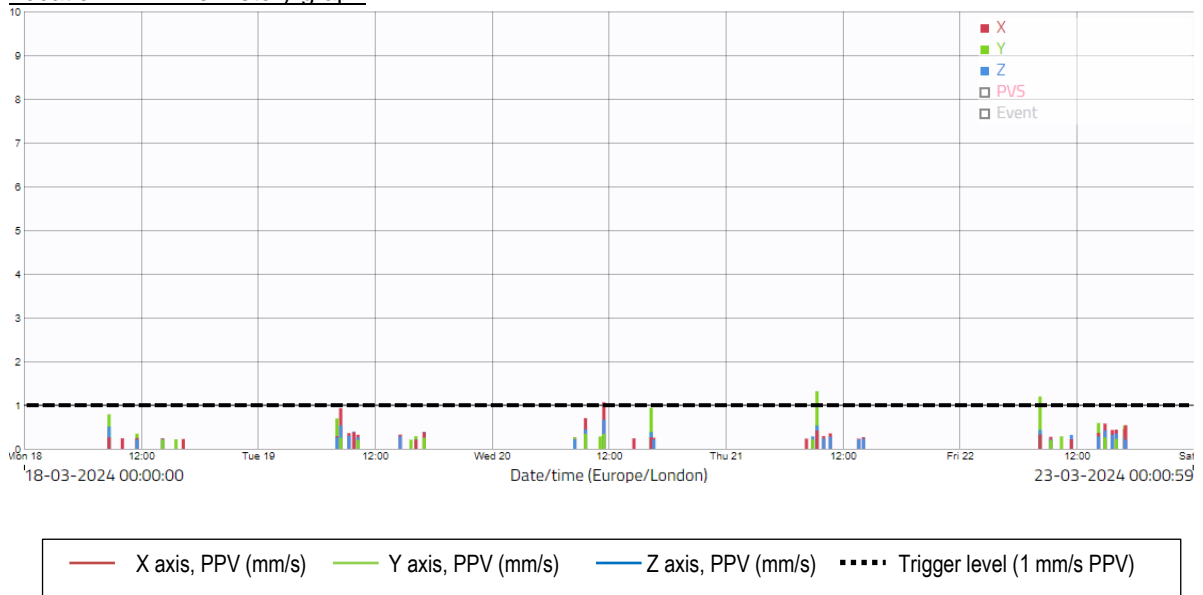
3.13 There was 100% data coverage at Location 1 for the monitoring period covered by this report. There were three exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The highest recorded vibration level was 1.3 mm/s, which occurred at 16:43 on Thursday 21<sup>st</sup> March. 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.

3.14 The majority of exceedances 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.

Location 2 – Raw data

Measuring point:	Period:	Order	Value	Date	Time
Holloway - L2	18/03/2024 to 23/03/2024	1	1.37	21/03/2024	09:22
		2	1.25	22/03/2024	08:15
Criteria mm/s PVS	Exceedances	3	1.07	20/03/2024	11:30
1.0	3	4	0.98	20/03/2024	11:31
		5	0.97	19/03/2024	08:30
		6	0.97	20/03/2024	16:21
		7	0.95	18/03/2024	08:44
		8	0.72	19/03/2024	08:07
		9	0.72	20/03/2024	09:37
		10	0.71	20/03/2024	09:36

Location 2 – Time-history graph

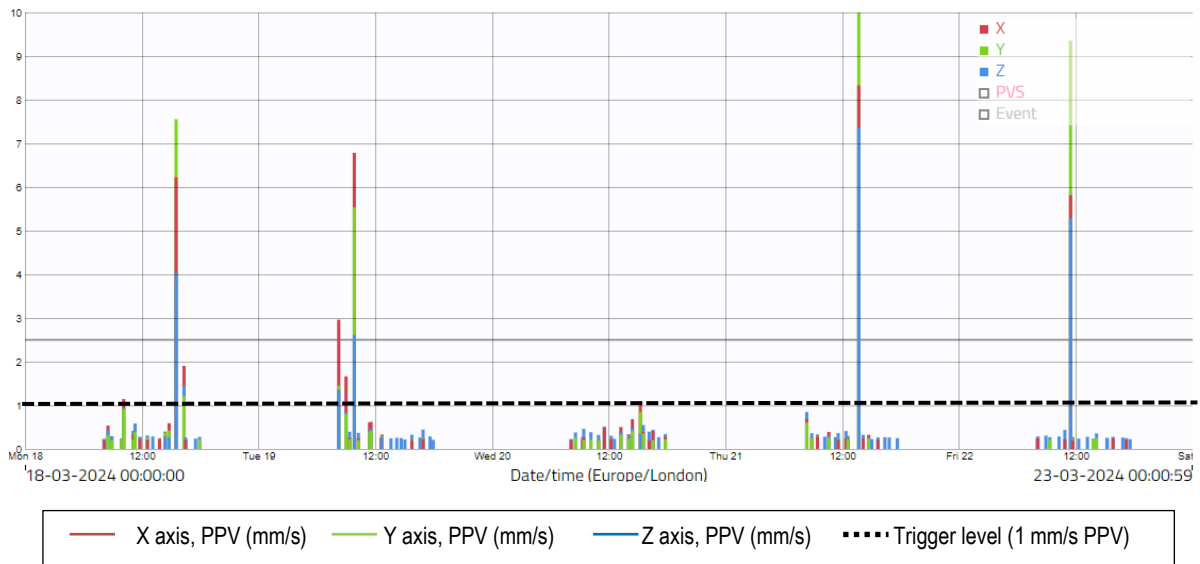


3.15 There was 100% data coverage at Location 2 for the monitoring period covered by this report. There were three exceedances of the project vibration trigger level of 1.0 mm/s PPV, which are shown in the raw data and graph above. The highest recorded vibration level was 1.4 mm/s, which occurred at 09:22 on Thursday 21<sup>st</sup> March. In addition, the site team confirmed that several exceedances were caused by a battery change and plant equipment within proximity of the monitor. Furthermore, 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.

### Location 3 – Raw data

Measuring point:	Period:	Order	Value	Date	Time
Holloway - L3	18/03/2024 to 23/03/2024	1	12.23	21/03/2024	13:42
		2	11.24	22/03/2024	11:28
Criteria mm/s PVS	Exceedances	3	8.59	19/03/2024	09:51
1.0	22	4	8.24	18/03/2024	15:32
		5	4.53	21/03/2024	13:43
		6	3.40	18/03/2024	15:33
		7	3.26	19/03/2024	08:15
		8	2.74	22/03/2024	11:27
		9	2.61	22/03/2024	11:29
		10	2.38	18/03/2024	16:21
		11	2.30	19/03/2024	08:14
		12	1.81	21/03/2024	13:40
		13	1.81	19/03/2024	09:00
		14	1.57	19/03/2024	09:50
		15	1.41	18/03/2024	10:09
		16	1.40	18/03/2024	10:17
		17	1.32	20/03/2024	15:15
		18	1.20	21/03/2024	08:21
		19	1.15	19/03/2024	08:58
		20	1.11	18/03/2024	15:31
		21	1.07	18/03/2024	10:11
		22	1.05	19/03/2024	08:46
		23	0.96	19/03/2024	08:12
		24	0.95	19/03/2024	08:28
		25	0.89	21/03/2024	13:41
		26	0.85	19/03/2024	09:49
		27	0.79	18/03/2024	10:12
		28	0.74	19/03/2024	09:56
		29	0.72	20/03/2024	14:26
		30	0.72	19/03/2024	11:25

### Location 3 – Time-history graph



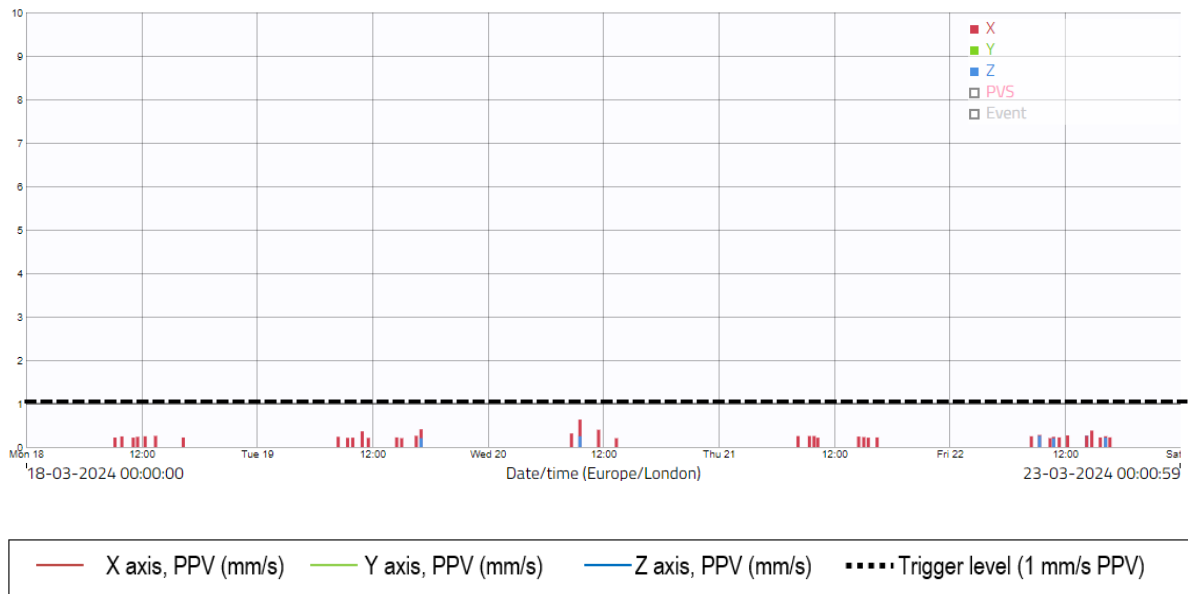
3.16 There was 100% data coverage at Location 3 for the monitoring period covered by this report. There were 22 exceedances of the project vibration trigger level of 1.0 mm/s PPV, which are shown in the raw data and graph above. The highest recorded vibration level was 12.2 mm/s, which occurred at 13:42 on Thursday 21<sup>st</sup> March. It is understood that the majority of exceedances were likely to have been caused onsite vehicles moving material within the vicinity of the monitor. 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).

- 3.17 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.
- 3.18 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, but still likely above the 1.0 mm/s PPV action level at the NSR, at times.
- 3.19 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	18/03/2024 to 23/03/2024	1	0.66	20/03/2024	09:35
		2	0.42	19/03/2024	17:04
Criteria mm/s PVS	Exceedances	3	0.41	20/03/2024	11:31
1.0	0	4	0.41	23/03/2024	09:30
		5	0.39	22/03/2024	14:47
		6	0.38	20/03/2024	09:36
		7	0.37	19/03/2024	10:57
		8	0.34	20/03/2024	11:30
		9	0.33	20/03/2024	09:37
		10	0.33	20/03/2024	09:34

Location 4 – Time-history graph



- 3.20 There was 100% data coverage at Location 4 for the monitoring period covered by this report. During this week, there were no exceedances of the project vibration trigger level of 1.0 mm/s PPV, as shown in the raw data and graph above.