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Architectural & Environmental Acousticians
Noise & Vibration Engineers

Holloway Park, London

Construction Monitoring Report

Client:	London Square
Ref:	CM70-22405-R0
Date:	5 February 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 29th January and Saturday 3rd February 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:

Horizon

- Crushing crush to Type 1

Kesel

- Refurbishment of site welfare cabins

Trident

- Installing electrics and water supplies to the welfare cabins

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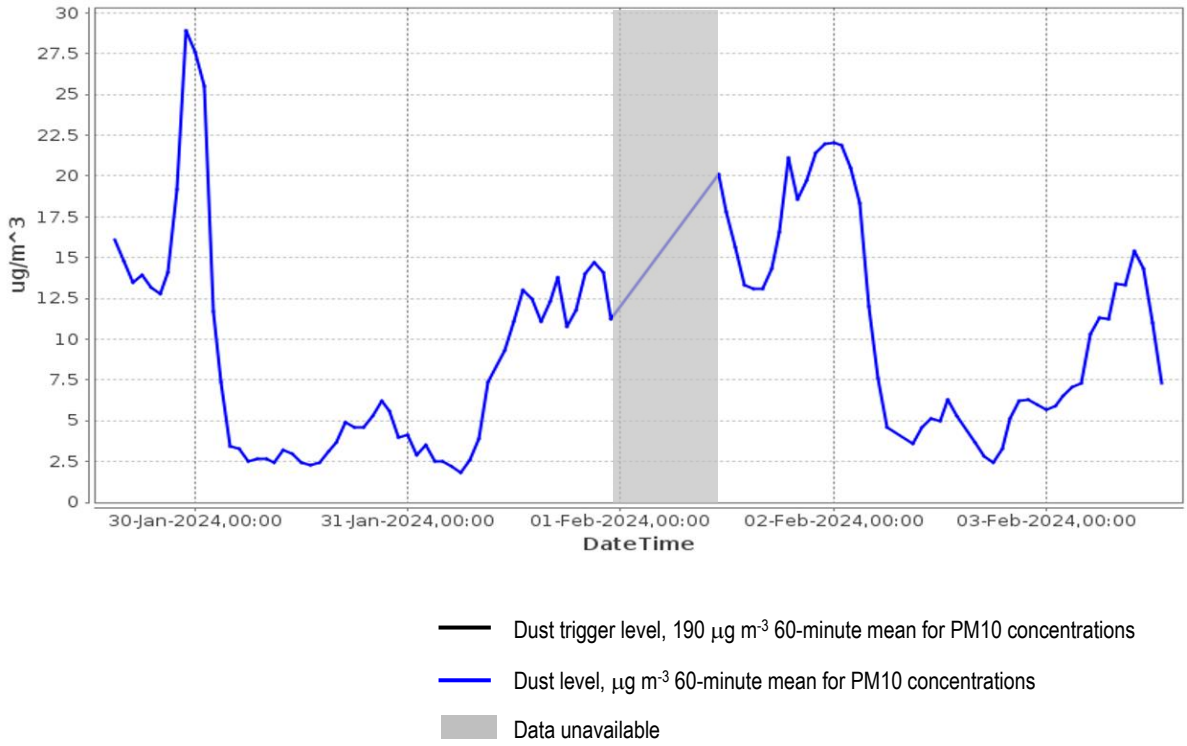
3. MONITORING DATA

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.

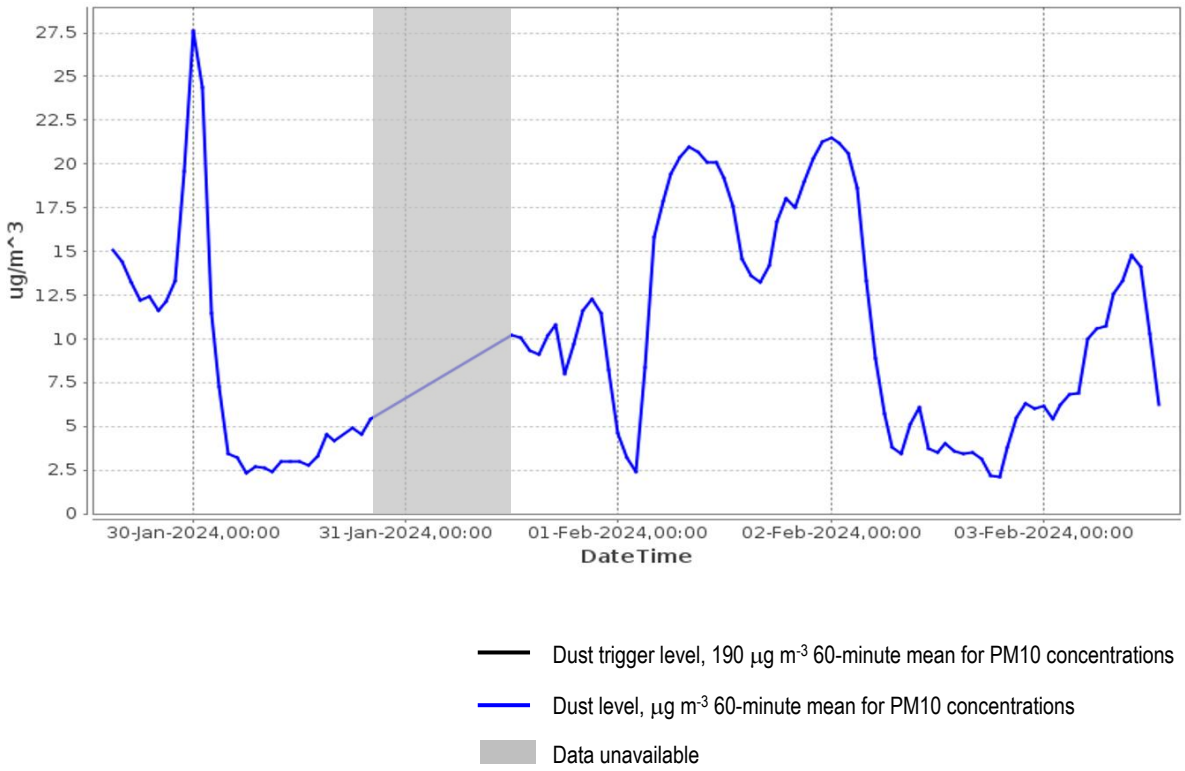
Dust Monitoring Results

Location 1



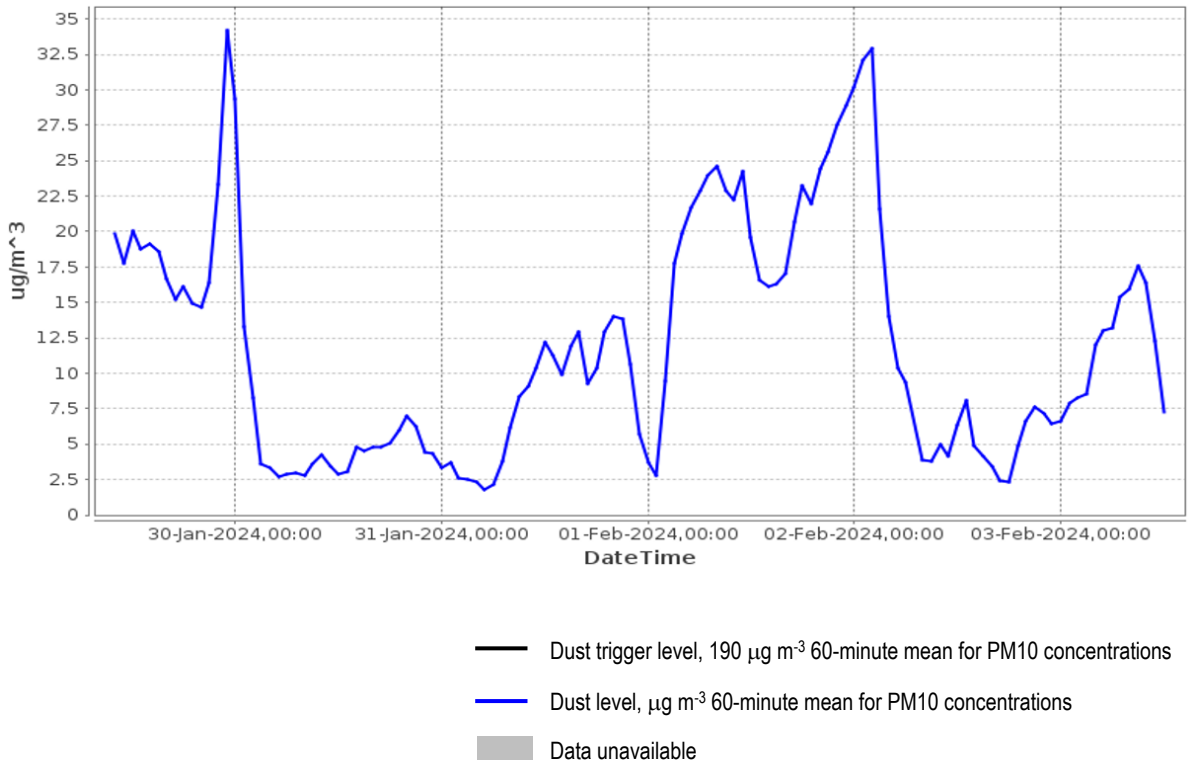
3.2 There was 96% data coverage at Location 1 for the monitoring period covered by this report. The monitor was offline for the first two working hours of Thursday 1st February, before the battery change was completed. No exceedances of the project dust criteria of 190 micrograms per cubic meter were recorded during the monitoring period covered by this report.

Location 2



3.3 There was 95% data coverage at Location 2 during construction hours for the monitoring period covered by this report. The monitor was offline for the first three working hours of Tuesday 30th January, before the battery change was completed. 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



3.4 There was 100% data coverage at Location 3 for the monitoring period covered by this report. No exceedances of the project dust criteria of 190 micrograms per cubic meter were recorded during the monitoring period covered by this report.

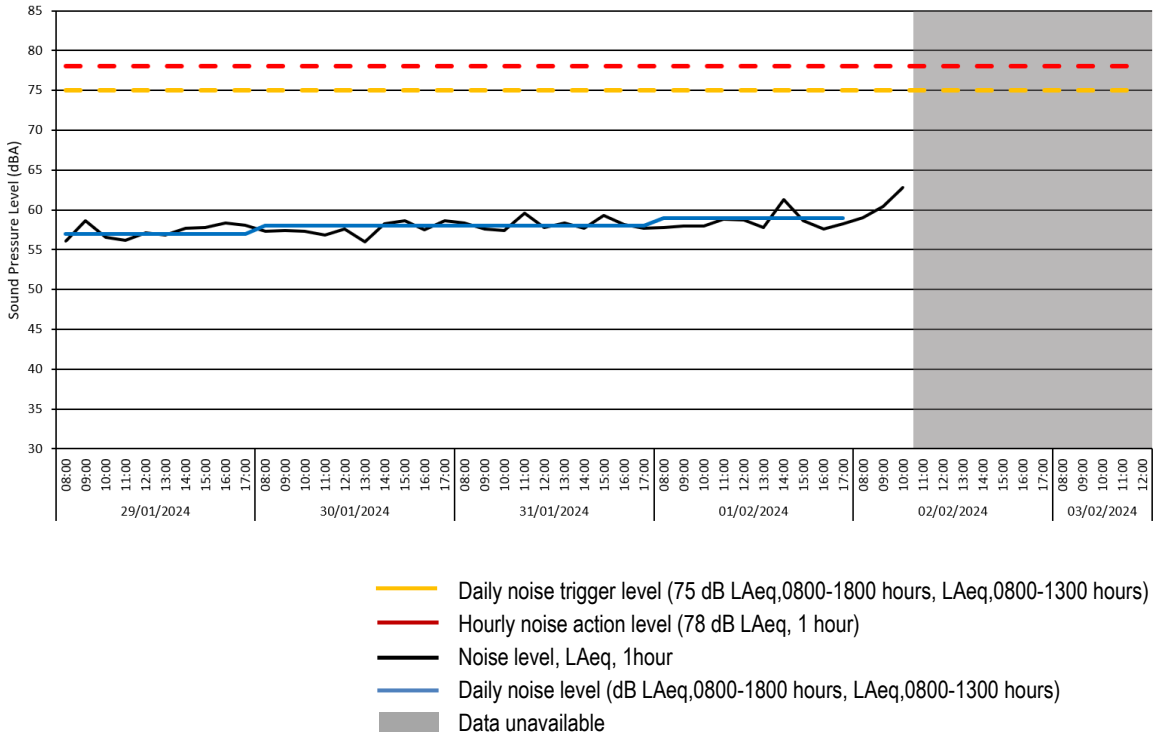
Noise Monitoring Results

Location 1 – Raw Data

Broadband Results

Date	Time	LAeq(60min)	LAeq(7hr)	LAeq(10hr)	LAeq(5h
[YYYY-MM-DD]	[hh:mm:ss]	[dB]	[dB]	[dB]	[dB]
2024-01-29	09:00:00	56.1	-.-	-.-	-.-
2024-01-29	10:00:00	58.6	-.-	-.-	-.-
2024-01-29	11:00:00	56.6	-.-	-.-	-.-
2024-01-29	12:00:00	56.2	-.-	-.-	-.-
2024-01-29	13:00:00	57.1	-.-	-.-	-.-
2024-01-29	14:00:00	56.8	-.-	-.-	-.-
2024-01-29	15:00:00	57.7	-.-	-.-	-.-
2024-01-29	16:00:00	57.8	-.-	-.-	-.-
2024-01-29	17:00:00	58.4	-.-	-.-	-.-
2024-01-29	18:00:00	58.1	-.-	57.4	-.-
2024-01-30	09:00:00	57.3	-.-	-.-	-.-
2024-01-30	10:00:00	57.4	-.-	-.-	-.-
2024-01-30	11:00:00	57.3	-.-	-.-	-.-
2024-01-30	12:00:00	56.8	-.-	-.-	-.-
2024-01-30	13:00:00	57.6	-.-	-.-	-.-
2024-01-30	14:00:00	56.0	-.-	-.-	-.-
2024-01-30	15:00:00	58.3	-.-	-.-	-.-
2024-01-30	16:00:00	58.6	-.-	-.-	-.-
2024-01-30	17:00:00	57.5	-.-	-.-	-.-
2024-01-30	18:00:00	58.6	-.-	57.6	-.-
2024-01-31	09:00:00	58.4	-.-	-.-	-.-
2024-01-31	10:00:00	57.6	-.-	-.-	-.-
2024-01-31	11:00:00	57.4	-.-	-.-	-.-
2024-01-31	12:00:00	59.6	-.-	-.-	-.-
2024-01-31	13:00:00	57.8	-.-	-.-	-.-
2024-01-31	14:00:00	58.4	-.-	-.-	-.-
2024-01-31	15:00:00	57.7	-.-	-.-	-.-
2024-01-31	16:00:00	59.3	-.-	-.-	-.-
2024-01-31	17:00:00	58.2	-.-	-.-	-.-
2024-01-31	18:00:00	57.7	-.-	58.3	-.-
2024-02-01	09:00:00	57.8	-.-	-.-	-.-
2024-02-01	10:00:00	58.0	-.-	-.-	-.-
2024-02-01	11:00:00	58.0	-.-	-.-	-.-
2024-02-01	12:00:00	58.8	-.-	-.-	-.-
2024-02-01	13:00:00	58.7	-.-	-.-	-.-
2024-02-01	14:00:00	57.8	-.-	-.-	-.-
2024-02-01	15:00:00	61.3	-.-	-.-	-.-
2024-02-01	16:00:00	58.6	-.-	-.-	-.-
2024-02-01	17:00:00	57.6	-.-	-.-	-.-
2024-02-01	18:00:00	58.3	-.-	58.6	-.-
2024-02-02	09:00:00	59.0	-.-	-.-	-.-
2024-02-02	10:00:00	60.4	-.-	-.-	-.-
2024-02-02	11:00:00	62.8	-.-	-.-	-.-

Location 1 – Time History Data



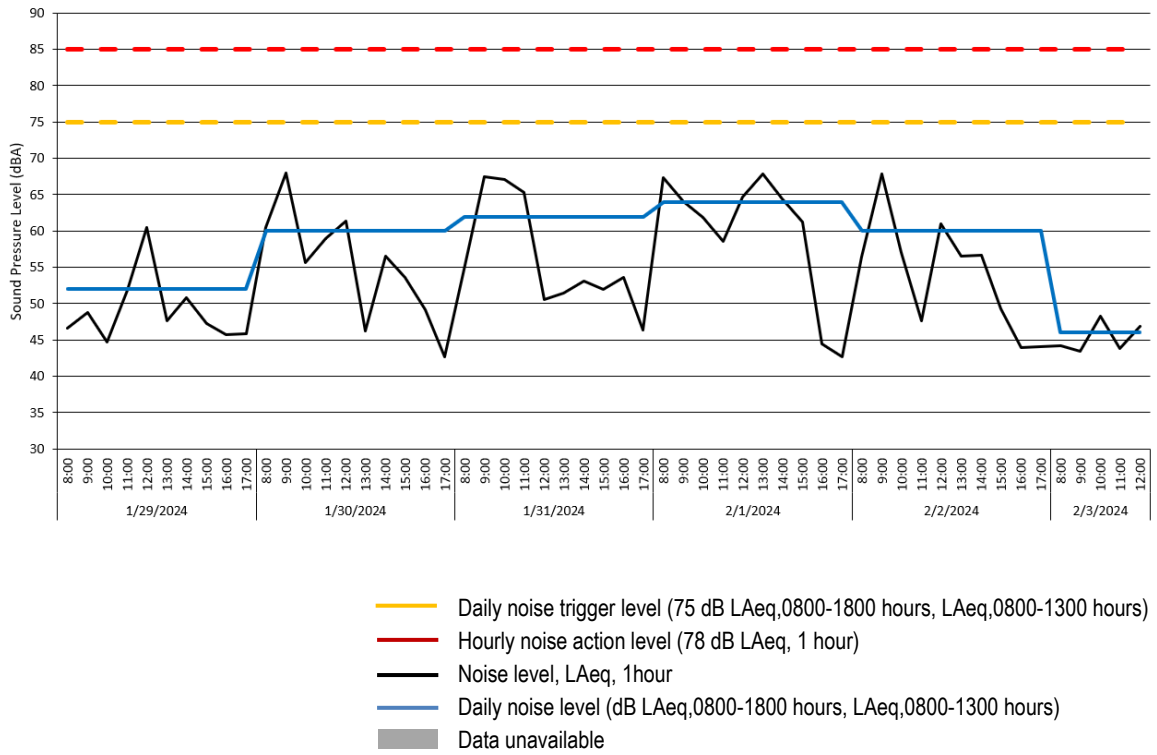
3.5 There was 78% data coverage at Location 1 for the monitoring period covered by this report. The monitor was offline from 11:00 on Friday 2nd February due to a fault with the online connection to the monitor. The instrument manufacturer has confirmed that the data collection at this location will resume on 11th February and has a confirmed that they will be able to prevent this from happening again. 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]
2024-01-29	09:00:00	46.6	-.-	-.-
2024-01-29	10:00:00	48.8	-.-	-.-
2024-01-29	11:00:00	44.7	-.-	-.-
2024-01-29	12:00:00	51.8	-.-	-.-
2024-01-29	13:00:00	60.5	-.-	-.-
2024-01-29	14:00:00	47.6	-.-	-.-
2024-01-29	15:00:00	50.8	-.-	-.-
2024-01-29	16:00:00	47.2	-.-	-.-
2024-01-29	17:00:00	45.7	-.-	-.-
2024-01-29	18:00:00	45.8	52.4	-.-
2024-01-30	09:00:00	60.5	-.-	-.-
2024-01-30	10:00:00	68.0	-.-	-.-
2024-01-30	11:00:00	55.7	-.-	-.-
2024-01-30	12:00:00	58.9	-.-	-.-
2024-01-30	13:00:00	61.4	-.-	-.-
2024-01-30	14:00:00	46.3	-.-	-.-
2024-01-30	15:00:00	56.6	-.-	-.-
2024-01-30	16:00:00	53.6	-.-	-.-
2024-01-30	17:00:00	49.2	-.-	-.-
2024-01-30	18:00:00	42.7	60.3	-.-
2024-01-31	09:00:00	55.3	-.-	-.-
2024-01-31	10:00:00	67.5	-.-	-.-
2024-01-31	11:00:00	67.1	-.-	-.-
2024-01-31	12:00:00	65.3	-.-	-.-
2024-01-31	13:00:00	50.6	-.-	-.-
2024-01-31	14:00:00	51.5	-.-	-.-
2024-01-31	15:00:00	53.1	-.-	-.-
2024-01-31	16:00:00	52.0	-.-	-.-
2024-01-31	17:00:00	53.6	-.-	-.-
2024-01-31	18:00:00	46.4	61.9	-.-
2024-02-01	09:00:00	67.4	-.-	-.-
2024-02-01	10:00:00	64.1	-.-	-.-
2024-02-01	11:00:00	61.9	-.-	-.-
2024-02-01	12:00:00	58.6	-.-	-.-
2024-02-01	13:00:00	64.7	-.-	-.-
2024-02-01	14:00:00	67.8	-.-	-.-
2024-02-01	15:00:00	64.4	-.-	-.-
2024-02-01	16:00:00	61.3	-.-	-.-
2024-02-01	17:00:00	44.4	-.-	-.-
2024-02-01	18:00:00	42.7	63.7	-.-
2024-02-02	11:00:00	57.0	-.-	-.-
2024-02-02	12:00:00	47.7	-.-	-.-
2024-02-02	13:00:00	61.0	-.-	-.-
2024-02-02	14:00:00	56.6	-.-	-.-
2024-02-02	15:00:00	56.7	-.-	-.-
2024-02-02	16:00:00	49.3	-.-	-.-
2024-02-02	17:00:00	44.0	-.-	-.-
2024-02-02	18:00:00	44.1	59.7	-.-
2024-02-03	09:00:00	44.2	-.-	-.-
2024-02-03	10:00:00	43.4	-.-	-.-
2024-02-03	11:00:00	48.3	-.-	-.-
2024-02-03	12:00:00	43.8	-.-	-.-
2024-02-03	13:00:00	46.9	-.-	45.8

Location 2 – Time History Data



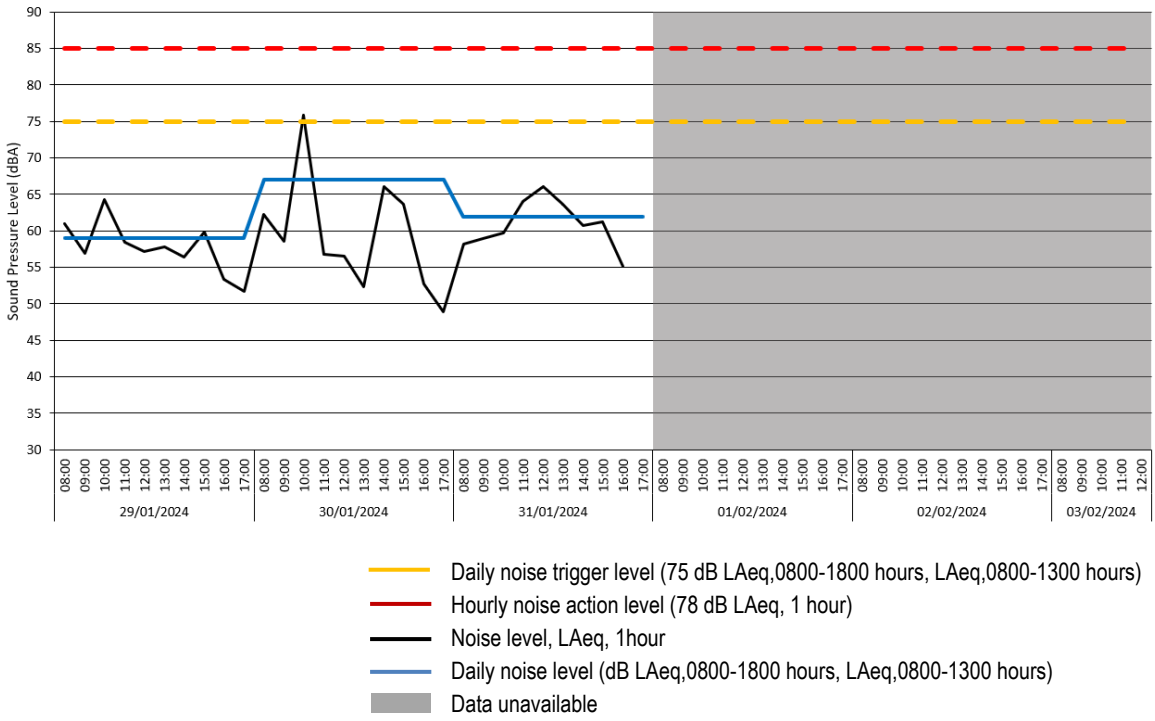
3.6 There was 100% data coverage at Location 2 for the monitoring period covered by this report. No exceedances of the project hourly noise criteria of 78 dB LAeq nor the daily project noise limit of 75 dB LAeq (0800-1800 hours) were recorded during the monitoring period covered by this report.

Location 3 – Raw Data

Broadband Results

Date	Time	LAeq(60min)	LAeq(10hr)	LAeq(5hr)
[YYYY-MM-DD]	[hh:mm:ss]	[dB]	[dB]	[dB]
2024-01-29	09:00:00	61.0	-.-	-.-
2024-01-29	10:00:00	56.9	-.-	-.-
2024-01-29	11:00:00	64.3	-.-	-.-
2024-01-29	12:00:00	58.4	-.-	-.-
2024-01-29	13:00:00	57.2	-.-	-.-
2024-01-29	14:00:00	57.8	-.-	-.-
2024-01-29	15:00:00	56.4	-.-	-.-
2024-01-29	16:00:00	59.8	-.-	-.-
2024-01-29	17:00:00	53.3	-.-	-.-
2024-01-29	18:00:00	51.7	59.0	-.-
2024-01-30	09:00:00	62.2	-.-	-.-
2024-01-30	10:00:00	58.6	-.-	-.-
2024-01-30	11:00:00	75.9	-.-	-.-
2024-01-30	12:00:00	56.8	-.-	-.-
2024-01-30	13:00:00	56.6	-.-	-.-
2024-01-30	14:00:00	52.3	-.-	-.-
2024-01-30	15:00:00	66.1	-.-	-.-
2024-01-30	16:00:00	63.6	-.-	-.-
2024-01-30	17:00:00	52.7	-.-	-.-
2024-01-30	18:00:00	48.9	66.9	-.-
2024-01-31	09:00:00	58.2	-.-	-.-
2024-01-31	10:00:00	59.0	-.-	-.-
2024-01-31	11:00:00	59.7	-.-	-.-
2024-01-31	12:00:00	64.1	-.-	-.-
2024-01-31	13:00:00	66.1	-.-	-.-
2024-01-31	14:00:00	63.7	-.-	-.-
2024-01-31	15:00:00	60.7	-.-	-.-
2024-01-31	16:00:00	61.2	-.-	-.-
2024-01-31	17:00:00	55.1	-.-	-.-

Location 3 – Time-history graph



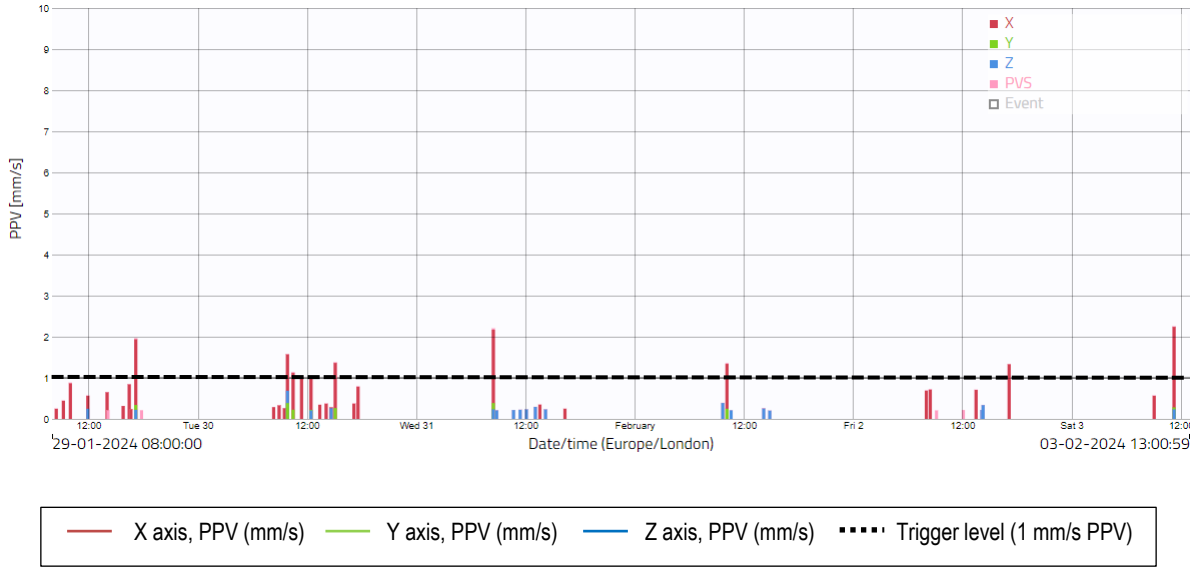
3.7 There was 55% data coverage at Location 3 for the monitoring period covered by this report. Data from 08:00 on Thursday 1st February is unavailable due to a fault with the online connection to the monitor. The instrument manufacturer has confirmed that the data collection at this location will resume on 11th February and has a confirmed that they will be able to prevent this from happening again. 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	29/01/2024 to 03/02/2024	1	2.25	03/02/2024	11:15
		2	2.20	31/01/2024	08:28
Criteria mm/s PVS	Exceedances	3	1.96	29/01/2024	17:11
1.0	12	4	1.58	30/01/2024	09:52
		5	1.52	30/01/2024	09:55
		6	1.38	30/01/2024	15:06
		7	1.36	01/02/2024	10:08
		8	1.34	02/02/2024	17:08
		9	1.31	30/01/2024	10:25
		10	1.14	30/01/2024	10:19
		11	1.04	30/01/2024	11:24
		12	1.00	30/01/2024	12:26

Location 1 – Time-history graph

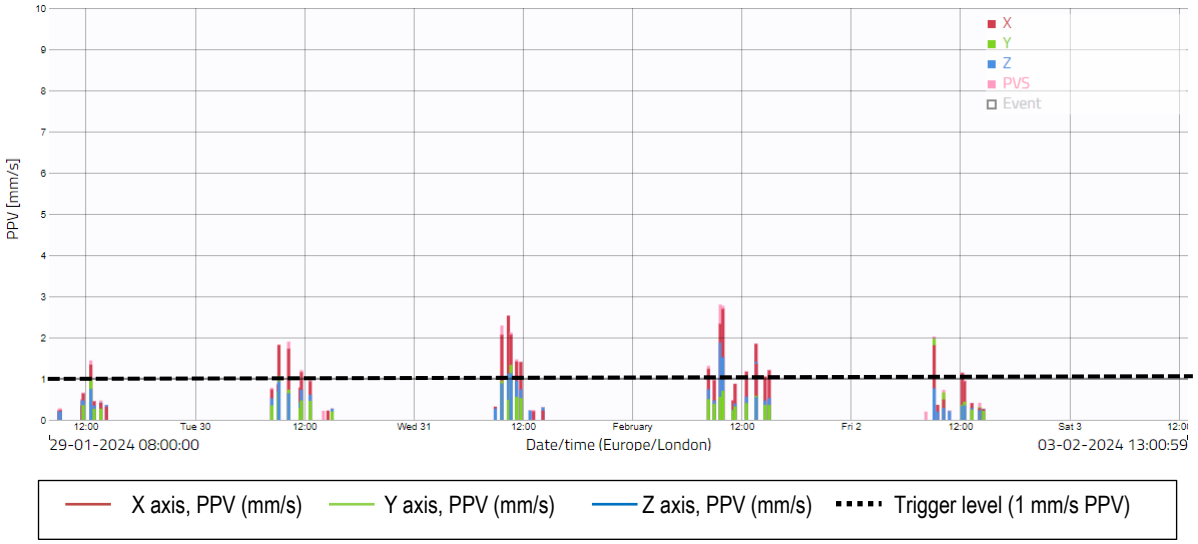


3.8 There was 100% data coverage at Location 1 for the monitoring period covered by this report. There were 12 exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The highest recorded vibration level was 2.3 mm/s, which occurred at 11:15 on Saturday 3rd February. 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. The exceedances are believed to be due to non-construction related activities. In this location, it is likely that the residents opened 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	Order	Value	Date	Time
Holloway - L2	29/01/2024 to 03/02/2024	1	2.80	01/02/2024	09:40	31	1.25	01/02/20	08:27
		2	2.77	01/02/2024	09:58	32	1.23	02/02/20	09:03
Criteria mm/s PVS	Exceedances	3	2.53	31/01/2024	10:25	33	1.21	01/02/20	15:03
1.0	51	4	2.29	31/01/2024	09:42	34	1.21	30/01/20	11:41
		5	2.12	31/01/2024	10:41	35	1.20	02/02/20	09:12
		6	2.02	02/02/2024	09:09	36	1.18	01/02/20	12:32
		7	1.90	30/01/2024	10:18	37	1.15	01/02/20	13:55
		8	1.90	02/02/2024	09:07	38	1.15	02/02/20	12:14
		9	1.90	02/02/2024	09:13	39	1.15	31/01/20	10:16
		10	1.89	02/02/2024	09:13	40	1.13	29/01/20	12:43
		11	1.86	01/02/2024	13:35	41	1.13	01/02/20	09:48
		12	1.83	30/01/2024	09:13	42	1.13	01/02/20	13:54
		13	1.59	31/01/2024	10:15	43	1.10	01/02/20	15:07
		14	1.50	02/02/2024	09:14	44	1.10	02/02/20	09:03
		15	1.49	01/02/2024	09:42	45	1.06	01/02/20	13:13
		16	1.47	31/01/2024	11:18	46	1.06	01/02/20	14:36
		17	1.45	02/02/2024	09:09	47	1.04	01/02/20	09:45
		18	1.44	29/01/2024	12:29	48	1.04	02/02/20	09:06
		19	1.42	31/01/2024	11:27	49	1.03	29/01/20	12:27
		20	1.42	31/01/2024	11:46	50	1.02	01/02/20	13:57
		21	1.40	31/01/2024	11:31	51	1.01	02/02/20	08:57
		22	1.38	02/02/2024	09:07				
		23	1.37	01/02/2024	13:36				
		24	1.36	01/02/2024	13:22				
		25	1.33	31/01/2024	09:46				
		26	1.31	01/02/2024	08:10				
		27	1.27	31/01/2024	09:26				
		28	1.26	29/01/2024	12:22				
		29	1.26	01/02/2024	13:12				
		30	1.26	01/02/2024	13:55				

Location 2 – Time-history graph



3.9 There was 100% data coverage at Location 2 for the monitoring period covered by this report. There were 52 exceedances of the project vibration trigger level of 1 mm/s PPV, which are shown in the raw data and graph above – this is a reduction from 347 exceedances recorded the previous week (commencing 22nd January). It is understood that the majority of exceedances were likely to have been caused by processing equipment within the proximity of the monitor. To demonstrate BPM, the site team relocated the crush heap to a less sensitive area on site – this is likely to explain the reduction in exceedances. 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	Order	Value	Date	Time
Holloway - L3	29/01/2024 to 03/02/2024	1	39.04	02/02/2024	09:52	31	1.21	30/01/20	10:21
		2	3.80	02/02/2024	09:53	32	1.17	29/01/20	11:02
Criteria mm/s PVS	Exceedances	3	3.62	29/01/2024	10:48	33	1.12	29/01/20	09:06
1	40	4	3.61	29/01/2024	10:57	34	1.10	29/01/20	10:02
		5	3.11	30/01/2024	10:21	35	1.09	29/01/20	09:58
		6	2.34	02/02/2024	10:06	36	1.07	29/01/20	10:08
		7	2.29	02/02/2024	10:08	37	1.05	02/02/20	12:58
		8	2.27	01/02/2024	15:33	38	1.02	01/02/20	08:10
		9	2.12	02/02/2024	13:42	39	1.02	30/01/20	11:33
		10	2.01	02/02/2024	12:04	40	1.01	29/01/20	10:58
		11	1.87	29/01/2024	10:54				
		12	1.82	29/01/2024	09:00				
		13	1.81	29/01/2024	10:36				
		14	1.61	29/01/2024	11:10				
		15	1.54	29/01/2024	08:57				
		16	1.53	01/02/2024	08:10				
		17	1.51	02/02/2024	08:18				
		18	1.49	29/01/2024	11:12				
		19	1.49	29/01/2024	11:10				
		20	1.45	29/01/2024	11:11				
		21	1.43	30/01/2024	11:33				
		22	1.40	02/02/2024	10:05				
		23	1.33	02/02/2024	09:58				
		24	1.31	01/02/2024	09:39				
		25	1.27	29/01/2024	09:07				
		26	1.24	30/01/2024	11:40				
		27	1.22	29/01/2024	11:05				
		28	1.22	01/02/2024	08:10				
		29	1.21	02/02/2024	10:08				
		30	1.21	01/02/2024	08:24				

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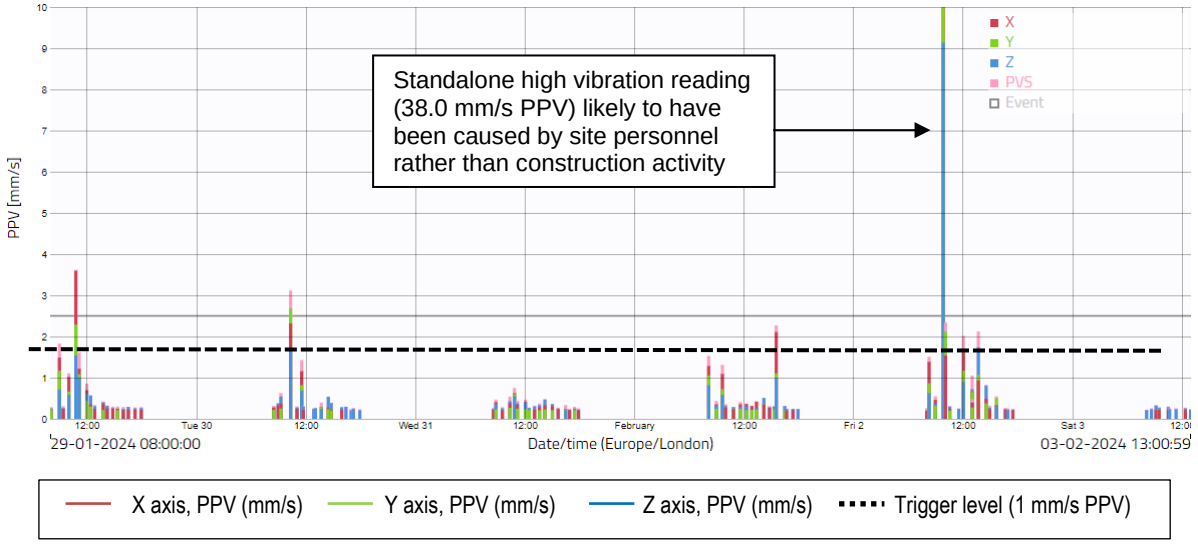
Location 3 – Time-history graph

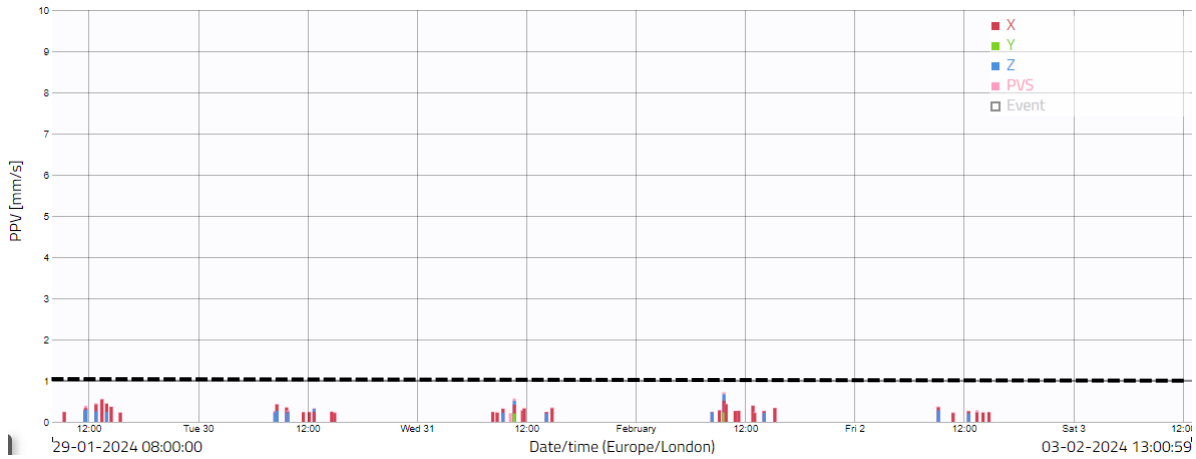


3.10 There was 100% data coverage at Location 3 for the monitoring period covered by this report. There were 40 exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The highest exceedance was recorded to be 39.0 mm/s PPV, recorded at 09:52 on Friday 2nd February – this is a standalone reading as the second-highest reading was 3.8 mm/s PPV. Due to this being a standalone reading, it is highly likely that this level was caused by the monitor being accidentally knocked by site personnel, rather than construction activity. The vast majority of the remaining exceedances are being caused by plant vehicles travelling along the haulage road which is directly in front of where the vibration monitor is currently located. These movements are unavoidable and there are no reasonably practicable measures that the site team can implement to reduce these emissions at this time.

Location 4 – Raw data

Measuring point:	Period:	Order	Value	Date	Time
Holloway - L4	29/01/2024 to 03/02/2024	1	0.72	01/02/2024	09:40
		2	0.57	31/01/2024	10:41
Criteria mm/s PVS	Exceedances	3	0.55	29/01/2024	13:28
1	0	4	0.45	29/01/2024	12:49
		5	0.45	29/01/2024	13:58
		6	0.44	30/01/2024	08:38
		7	0.43	01/02/2024	09:55
		8	0.40	01/02/2024	12:52
		9	0.39	29/01/2024	11:41
		10	0.39	29/01/2024	12:14

Location 4 – Time-history graph



3.11 There was 100% data coverage at Location 4 for the monitoring period covered by this report. There were no exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above.