

Architectural & Environmental Acousticians Noise & Vibration Engineers

Holloway Park, London

Construction Monitoring Report

Client:	London Square
Ref:	CM67-22405-R0
Date:	16 January 2024
Note by:	Adam Bamford, BSc MIOA DipIOA, Principal Acoustics Consultant

1. INTRODUCTION

1.1 This Technical Note sets out results of the construction monitoring being carried out at the above between Monday 8th January and Saturday 13th January 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:

Downwell

- Maintenance of site monitors
- Maintenance of site fencing
- Maintenance of site roadworks

Horizon

- Ground remediation.
- Removal of non-hazardous materials
- Picking station screening works.
- Crushing



• Installation of temporary roads

Pure logistics

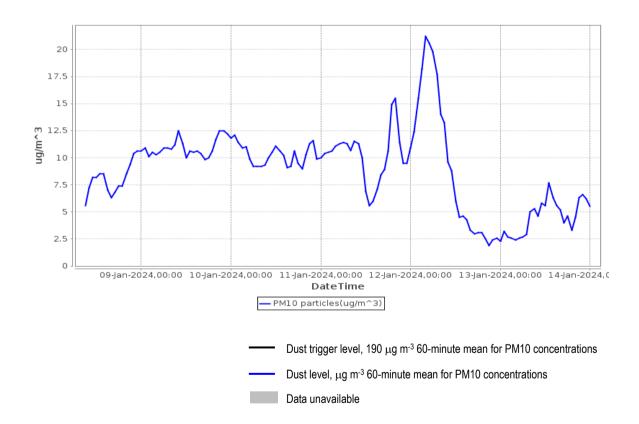
• Installation of site welfare cabins

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

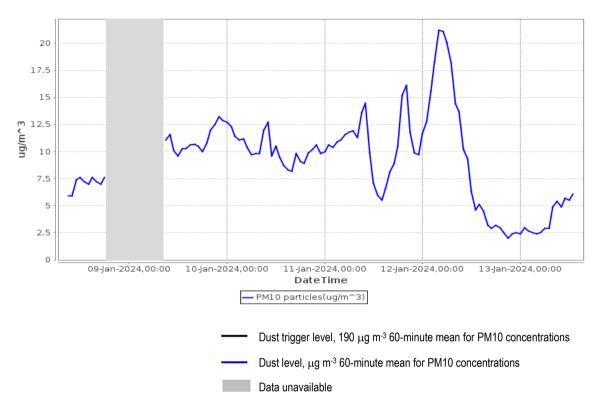
Location 1



3.2 There was 100% data coverage at Location 1 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.



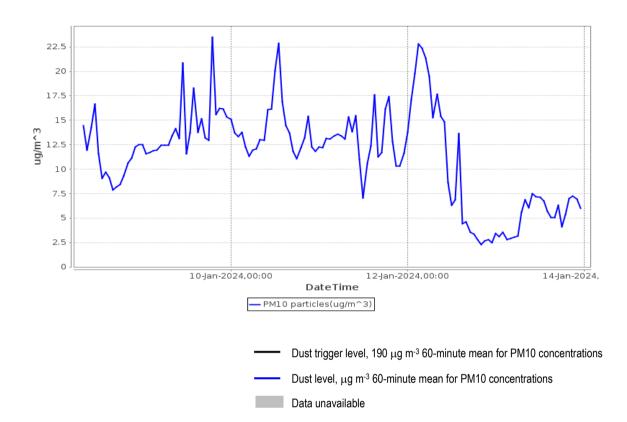
Location 2



3.3 There was 100% data coverage at Location 2 during construction hours for the monitoring period covered by this report. The missing data shown in the graph above occurred outside of construction hours and has therefore been disregarded. 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.



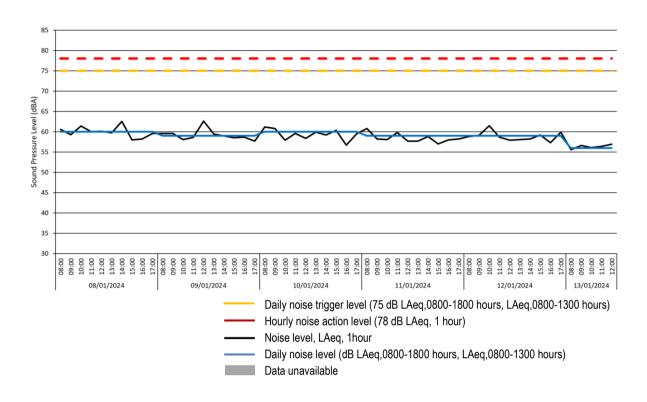
Noise Monitoring Results

Location 1 - Raw Data

# Broadband Results					
# Broadband Results Date	Timo	LAca(60min)	l A a a (7hn)	$l \log(10hn)$	LAcc(Ebp)
	Time	LAeq(60min)	LAeq(7hr)	LAeq(10hr)	LAeq(5hr)
[YYYY-MM-DD]	[hh:mm:ss]	[dB]	[dB]	[dB]	[dB]
2024-01-08	09:00:00	60.6			
2024-01-08	10:00:00	59.3			
2024-01-08	11:00:00	61.4			
2024-01-08	12:00:00	60.0			
2024-01-08	13:00:00	60.1			
2024-01-08	14:00:00	59.7			
2024-01-08	15:00:00	62.5			
2024-01-08	16:00:00	58.0			
2024-01-08	17:00:00	58.2			
2024-01-08	18:00:00	59.6		60.1	
2024-01-09	09:00:00	59.6			
2024-01-09	10:00:00	59.6			
2024-01-09	11:00:00	58.1			
2024-01-09	12:00:00	58.6			
2024-01-09	13:00:00	62.6			
2024-01-09	14:00:00	59.4			
2024-01-09	15:00:00	59.0			
2024-01-09	16:00:00	58.5			
2024-01-09	17:00:00	58.7			
2024-01-09	18:00:00	57.7		59.4	
2024-01-10	09:00:00	61.2			
2024-01-10	10:00:00	60.8			
2024-01-10	11:00:00	57.9			
2024-01-10	12:00:00	59.6			
2024-01-10	13:00:00	58.4			
2024-01-10	14:00:00	59.9			
2024-01-10	15:00:00	59.2			
2024-01-10	16:00:00	60.3	• 		
2024-01-10	17:00:00	56.7	• 	• 	• • • •
2024-01-10	18:00:00	59.5	• 	59.5	•
2024-01-10	09:00:00	60.8			
2024-01-11	10:00:00	58.2			
2024-01-11	11:00:00	58.1			
2024-01-11	12:00:00	59.8			
2024-01-11	13:00:00	57.7			
2024-01-11	14:00:00	57.7			
2024-01-11	15:00:00	58.8			
2024-01-11	16:00:00	57.0			
2024-01-11	17:00:00	58.0			
2024-01-11	18:00:00	58.2		58.6	
2024-01-12	09:00:00	58.8			
2024-01-12	10:00:00	59.1			
2024-01-12	11:00:00	61.5			
2024-01-12	12:00:00	58.7			
2024-01-12	13:00:00	57.9			
2024-01-12	14:00:00	58.1			
2024-01-12	15:00:00	58.2			
2024-01-12	16:00:00	59.2			
2024-01-12	17:00:00	57.3			
2024-01-12	18:00:00	59.9		59.0	
2024-01-13	09:00:00	55.6			
2024-01-13	10:00:00	56.6			
2024-01-13	11:00:00	56.1			
2024-01-13	12:00:00	56.4			
2024-01-13	13:00:00	56.9			56.3



Location 1 - Time History Data



3.5 There was 100% data coverage at Location 1 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.

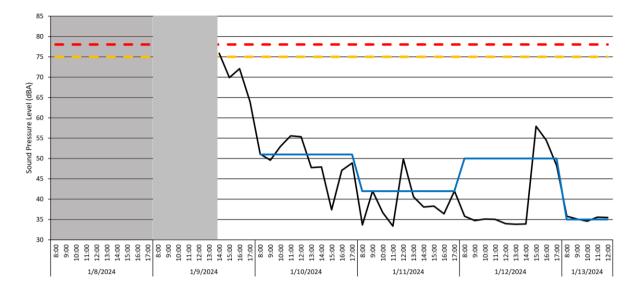


Location 2 - Raw Data

# Broa	adband Results				
	Date	Time	LAeq(60min)	LAeq(10hr)	LAeq(5hr)
	[YYYY-MM-DD]	[hh:mm:ss]	[dB]	[dB]	[dB]
	2024-01-09	15:00:00	75.9		
	2024-01-09	16:00:00	69.9		
	2024-01-09	17:00:00	72.1		
	2024-01-09	18:00:00	64.0		
	2024-01-10	09:00:00	51.1		
	2024-01-10	10:00:00	49.6		
	2024-01-10	11:00:00	53.0		
	2024-01-10	12:00:00	55.6		
	2024-01-10	13:00:00	55.3		
	2024-01-10	14:00:00	47.8		
	2024-01-10	15:00:00	47.9		
	2024-01-10	16:00:00	37.4		
	2024-01-10	17:00:00	47.1		
	2024-01-10	18:00:00	48.9	51.4	
	2024-01-11	09:00:00	33.7		
	2024-01-11	10:00:00	42.0		
	2024-01-11	11:00:00	36.7		
	2024-01-11	12:00:00	33.4		
	2024-01-11	13:00:00	49.9		
	2024-01-11	14:00:00	40.6		
	2024-01-11	15:00:00	38.1		
	2024-01-11	16:00:00	38.3		
	2024-01-11	17:00:00	36.4		
	2024-01-11	18:00:00	42.0	42.3	
	2024-01-12	09:00:00	35.8		
	2024-01-12	10:00:00	34.7		
	2024-01-12	11:00:00	35.1		
	2024-01-12	12:00:00	35.0		
	2024-01-12	13:00:00	34.0		
	2024-01-12	14:00:00	33.8		
	2024-01-12	15:00:00	33.9		
	2024-01-12	16:00:00	57.9		
	2024-01-12	17:00:00	54.5		
	2024-01-12	18:00:00	48.2	50.0	
	2024-01-13	09:00:00	35.8		
	2024-01-13	10:00:00	35.1		
	2024-01-13	11:00:00	34.6		
	2024-01-13	12:00:00	35.6		
	2024-01-13	13:00:00	35.5		35.3



Location 2 - Time History Data



3.6 There was 71% data coverage at Location 2 for the monitoring period covered by this report. Cass Allen successfully replaced the faulty microphone cable on the 9th January. 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.

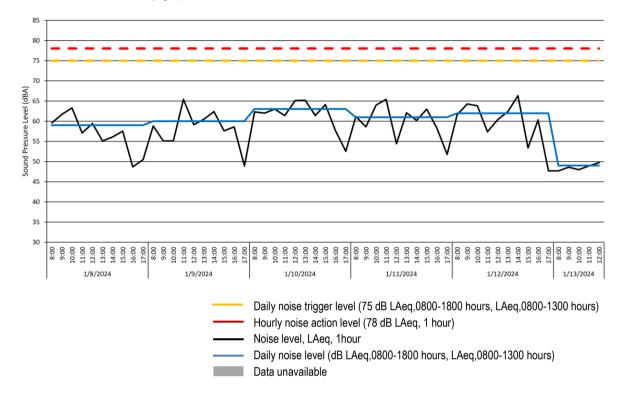


Location 3 - Raw Data

# Broadband Results				
Date	Time	LAeq(60min)	LAeq(10hr)	LAeq(5hr)
[YYYY-MM-DD]	[hh:mm:ss]	[dB]	[dB]	[dB]
2024-01-08	09:00:00	59.6		
2024-01-08	10:00:00	61.7		
2024-01-08	11:00:00	63.3		
2024-01-08	12:00:00	57.1		
2024-01-08	13:00:00	59.4		
2024-01-08	14:00:00	55.1		
2024-01-08	15:00:00	56.1		
2024-01-08	16:00:00	57.5		
2024-01-08	17:00:00	48.7		
2024-01-08	18:00:00	50.5	58.7	
2024-01-09	09:00:00	58.8		
2024-01-09	10:00:00	55.1		
2024-01-09	11:00:00	55.1		
2024-01-09	12:00:00	65.4		
2024-01-09	13:00:00	59.1		
2024-01-09	14:00:00	60.5		
2024-01-09	15:00:00	62.4	•	•
2024-01-09	16:00:00	57.6		
2024-01-09	17:00:00	58.6		
2024-01-09	18:00:00	48.9	60.0	
2024-01-10	09:00:00	62.3		
2024-01-10	10:00:00	62.0		
2024-01-10	11:00:00	63.0		
2024-01-10	12:00:00	61.4		
2024-01-10	13:00:00	65.1		
2024-01-10	14:00:00	65.2		
2024-01-10	15:00:00	61.4		
2024-01-10	16:00:00	64.1		
2024-01-10	17:00:00	57.7		
2024-01-10	18:00:00	52.5	62.5	
2024-01-11	09:00:00	61.2		
2024-01-11	10:00:00	58.6		
2024-01-11	11:00:00	64.0		
2024-01-11	12:00:00	65.4		
2024-01-11	13:00:00	54.4	•	•
2024-01-11	14:00:00	62.1	•	•
2024-01-11	15:00:00	60.2	-•-	- • -
2024-01-11 2024-01-11	16:00:00	63.0		
	17:00:00	58.4		
2024-01-11	18:00:00	51.8	61.4	
2024-01-12	09:00:00	61.6		
2024-01-12	10:00:00	64.3		
2024-01-12	11:00:00	63.8		
2024-01-12	12:00:00	57.4		
2024-01-12	13:00:00	60.4		
2024-01-12	14:00:00	62.4		
2024-01-12	15:00:00	66.3		
2024-01-12	16:00:00	53.4		
2024-01-12	17:00:00	60.3		
2024-01-12	18:00:00	47.7	61.9	
2024-01-13	09:00:00	47.7		
2024-01-13	10:00:00	48.6		
2024-01-13	11:00:00	48.0		
2024-01-13	12:00:00	48.9	• 	•
2024-01-13	13:00:00	49.7		48.6
2024 01 15	12.00.00		•	1010



Location 3 - Time-history graph



3.7 There was 100% data coverage at Location 3 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.

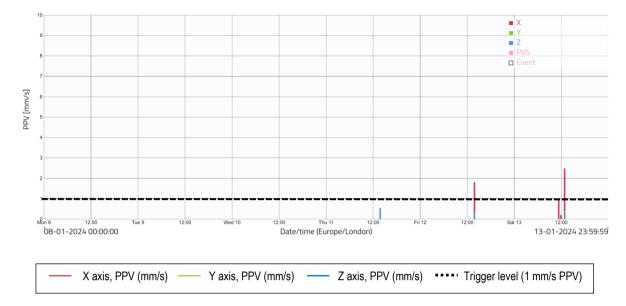
Vibration Monitoring Results

Location 1 - Raw data

Measuring	g point:	Period:	Period:		Value	Date	Time
Holloway	- L1	08/01/202	08/01/2024 to 13/01/2024		2.51	13/01/2024	12:50
				2	1.82	12/01/2024	13:51
Criteria m	m/s PVS	Exceedanc	Exceedances		1.00	13/01/2024	11:20
1.0		2		4	0.79	12/01/2024	13:48
				5	0.54	11/01/2024	13:47
				6	0.36	13/01/2024	11:15
				7	0.21	13/01/2024	11:54



Location 1 - Time-history graph



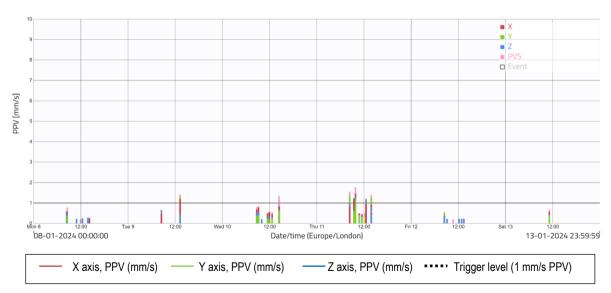
3.8 There was 100% data coverage at Location 1 for the monitoring period covered by this report. There were two exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The project team that confirmed that no active demolition works have taken place in this area of the site since 24th October and therefore 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
Holloway - L2	08/01/202	24 to 13/01/2024	1	1.78	11/01/2024	09:49
			2	1.55	11/01/2024	08:20
Criteria mm/s P\	S Exceedanc	es	3	1.42	09/01/2024	13:13
1.0	20		4	1.40	11/01/2024	13:49
			5	1.40	11/01/2024	10:05
			6	1.35	11/01/2024	10:06
			7	1.34	10/01/2024	14:10
			8	1.31	11/01/2024	09:40
			9	1.27	11/01/2024	10:08
			10	1.23	11/01/2024	09:22
			11	1.23	11/01/2024	10:08
			12	1.23	11/01/2024	10:05
			13	1.21	11/01/2024	12:30
			14	1.18	11/01/2024	12:33
			15	1.18	11/01/2024	12:32
			16	1.16	11/01/2024	09:19
			17	1.12	10/01/2024	14:27
			18	1.03	10/01/2024	14:20
			19	1.02	11/01/2024	09:45
			20	1.02	11/01/2024	08:44
			21	0.99	11/01/2024	12:26

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 20 exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The project team that confirmed that no active demolition works have taken place in this area of the site since 24th October and therefore the exceedances are believed to be due to non-construction related activities. In this location, it is likely that a combination of site operatives changing batteries and weather-related events (i.e. rainfall or heavy gusts) are responsible for the recorded exceedances. 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. The exceedance on the 9th January was caused by Cass Allen staff during the investigation and replacement of the microphone cable for the noise monitoring unit.

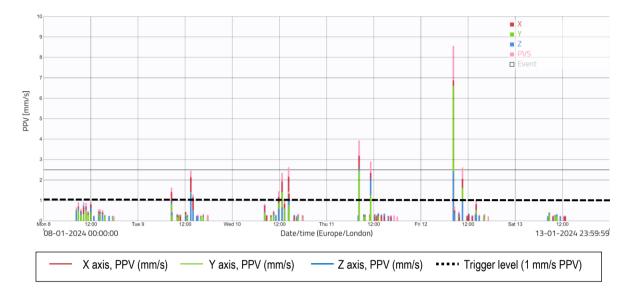


Location 3 - Raw data

Measuring po		Period:	Order	Value	Date	Time
Holloway - L3	}	08/01/2024 to 13	/01/2024 1	8.57	12/01/2024	08:15
			2	3.94	11/01/2024	08:15
Criteria mm/s	s PVS	Exceedances	3	2.90	11/01/2024	11:12
1		31	4	2.63	10/01/2024	14:20
			5	2.61	12/01/2024	10:34
			6	2.46	09/01/2024	13:26
			7	2.45	12/01/2024	10:34
			8	2.36	10/01/2024	12:39
			9	2.14	09/01/2024	13:28
			10	2.00	11/01/2024	11:01
			11	1.80	10/01/2024	12:40
			12	1.76	09/01/2024	13:24
			13	1.63	09/01/2024	08:24
			14	1.57	10/01/2024	14:23
			15	1.54	11/01/2024	08:17
			16	1.51	10/01/2024	14:10
			17	1.50	10/01/2024	14:18
			18	1.45	10/01/2024	11:48
			19	1.43	10/01/2024	14:24
			20	1.41	10/01/2024	14:20
			21	1.40	10/01/2024	12:42
			22	1.31	10/01/2024	14:17
			23	1.29	09/01/2024	14:01
			24	1.20	11/01/2024	08:36
			25	1.09	11/01/2024	11:11
			26	1.07	09/01/2024	08:15
			27	1.07	11/01/2024	11:01
			28	1.06	11/01/2024	11:08
			29	1.03	11/01/2024	11:02
			30	1.03	10/01/2024	13:42
			31	1.02	10/01/2024	13:18
			32	0.99	12/01/2024	14:04



Location 3 – Time-history graph



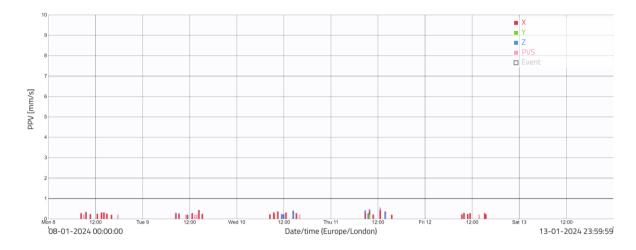
3.10 There was 100% data coverage at Location 3 for the monitoring period covered by this report. There were 31 exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The vast majority of these exceedances are being caused by plant vehicles travelling 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. The two highest recorded levels of 8.57 and 3.94 mm/s occurred on 12th and 11th January respectively and were due to battery changes by site operatives.

Measuring	point:	Period:		Order	Value	Date	Time
Holloway ·	- L4	08/01/2024 to 13/01/2024		1	0.56	11/01/2024	12:33
				2	0.49	11/01/2024	09:49
Criteria m	Criteria mm/s PVS Exceedances		3	0.46	11/01/2024	10:08	
1		0		4	0.44	09/01/2024	14:20
				5	0.42	11/01/2024	08:44

Location 4 – Raw data



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.