

Architectural & Environmental Acousticians Noise & Vibration Engineers

# Holloway Park, London

# **Construction Monitoring Report**

Client:	London Square
Ref:	CM82-22405-R0
Date:	5 June 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 13<sup>th</sup> & Saturday 25<sup>th</sup> May 2024. 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 during the period covered by this report, in addition to the usual use of the Haul Road with site vehicles:

#### онов

- Working on drainage at Gate 2 and near welfare and further into the site
- Installation of drainage under road adjacent to location 3.
- Excavation of pilecaps in Block C
- Installation of drainage under temp haul road, adjacent to site welfare accommodation.
- Muck away works (i.e. the process of removing waste material, debris, and soil)
- Concrete tower crane base for TC1
- Installation of pilecaps



# 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 13/05/2024 15/05/2024 16/05/2024 17/05/2024 18/05/2024 19/05/2024 20/05/2024 21/05/2024 22/05/2024 23/05/2024 24/05/2024 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 100% data coverage at Location 1 during construction hours for the monitoring period covered by this report.
- 3.3 No exceedances of the project dust criteria of 190 micrograms per cubic meter were recorded during the monitoring period covered by this report.



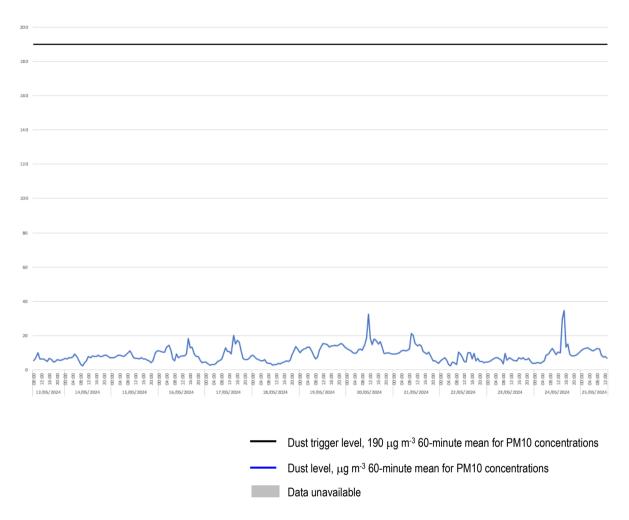
Location 2

200	
180	
160	
140	
120	
100	
80	
60	
40	
20	
	"Low when we want
0	8         8
	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

- 3.4 There was 100% data coverage at Location 2 during construction hours for the monitoring period covered by this report.
- 3.5 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 100% data coverage at Location 3 during construction hours for the monitoring period covered by this report.
- 3.7 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

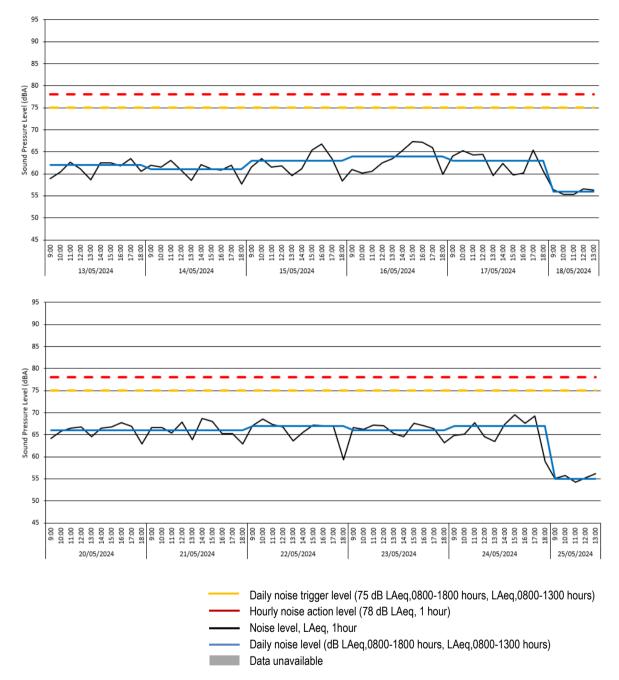
	Time [hh:mm:ss] 09:00:00 10:00:00 11:00:00 12:00:00 14:00:00 15:00:00 15:00:00 16:00:00 17:00:00 10:00:00 10:00:00 11:00:00 11:00:00 12:00:00				
# Broadband Results Date	Time	LAeg(60min)	LAeg(7hr)	LAeg(10hr)	LAeg(5hr)
[YYYY-MM-DD] 2024-05-13	[hh:mm:ss]	[dB]	[dB]	[dB]	[dB]
2024-05-13	10:00:00	60.4	202	202	202
2024-05-13 2024-05-13	11:00:00 12:00:00	62.7 61.1	2:2	2;2	2;2
2024-05-13	13:00:00	58.7			
2024-05-13	15:00:00	62.5	2:2	2,2	2,2
2024-05-13	16:00:00	61.8	212	212	212
2024-05-13	18:00:00	60.5	-:-	61.5	-1-
2024-05-14 2024-05-14	10:00:00	61.5	2:2	2:2	202
2024-05-14	11:00:00	63.1	212	212	212
2024-05-14	13:00:00	58.5	-:-	-1-	-1-
2024-05-14	15:00:00	61.1	2:2	2:2	212
2024-05-14	16:00:00	60.9	2.2	212	2.2
2024-05-14	18:00:00	57.7	-:-	61.2	-1-
2024-05-15 2024-05-15	10:00:00	63.5	2:2	2:2	202
2024-05-15	11:00:00	61.6	212	212	2.2
2024-05-15	13:00:00	59.6	-:-	-:-	-:-
2024-05-15 2024-05-15	14:00:00 15:00:00	61.1	2:2	2;2	2:2
2024-05-15	16:00:00	66.8			
2024-05-15	18:00:00	58.4	2:2	63.0	202
2024-05-16 2024-05-16	09:00:00	61.0 60.2	212	2;2	2:2
2024-05-16	11:00:00	60.5		-1-	
2024-05-16	13:00:00	63.5	2:2	2,2	202
2024-05-16	14:00:00	65.3	212	212	212
2024-05-16	16:00:00	67.2	-:-	-:-	-1-
2024-05-16 2024-05-16	17:00:00 18:00:00	66.0 59.9	2:2	64.2	2:2
2024-05-17	09:00:00	64.0		2.2	
2024-05-17	11:00:00	64.3	2:2	202	202
2024-05-17 2024-05-17	12:00:00 13:00:00	64.4 59.6	2;2	2;2	2;2
2024-05-17	14:00:00	62.4			
2024-05-17	16:00:00	60.2	202	2,2	202
2024-05-17	17:00:00	65.4	2:2	63.1	2:2
2024-05-18	09:00:00	56.5			
2024-05-18	11:00:00	55.3	2:2	2,2	202
2024-05-18 2024-05-18	12:00:00	56.6 56.3	2:2	2:2	56.1
2024-05-19	18:00:00	217.		55.6	
2024-05-20	10:00:00	65.8	2:2	2,2	2,2
2024-05-20	11:00:00	66.5	2:2	2:2	2:2
2024-05-20	13:00:00	64.5	-:-	-1-	-1-
2024-05-20	15:00:00	66.7	2:2	2:2	2,2
2024-05-20	16:00:00	67.7	212	212	212
2024-05-20	18:00:00	62.9	-:-	66.1	-1-
2024-05-21	10:00:00	66.6	2:2	2,2	202
2024-05-21	11:00:00	65.4	212	212	212
2024-05-21	13:00:00	63.9	-:-	-1-	-1-
2024-05-21	15:00:00	68.0	2:2	2:2	212
2024-05-21	16:00:00	65.2	2.2	212	2.2
2024-05-21	18:00:00	62.9	-:-	66.4	-1-
2024-05-22	10:00:00	68.6	2:2	2:2	202
2024-05-22	11:00:00	67.3	212	212	212
2024-05-22	13:00:00	63.6	-1-	-1-	-1-
2024-05-22 2024-05-22	14:00:00 15:00:00	65.5 67.2	2;2	2;2	2;2
2024-05-22 2024-05-22	16:00:00 17:00:00	67.1 67.0	2;2	22	2;2
2024-05-22	19:00:00	23.3		00.0	
2024-05-23 2024-05-23	09:00:00 10:00:00 11:00:00	66.2	2:2	2;2	2:2
2024-05-23 2024-05-23	12.00.00	67.2		11	2;2
2024-05-23	13:00:00	65.3	-:-		
2024-05-23 2024-05-23	15:00:00	64.6	2:2	2;2	2;2
2024-05-23		67.1		2.2	
2024-05-23	17:00:00 18:00:00 09:00:00	66.6 67.2 67.2 67.3 65.3 64.6 67.6 67.6 67.1 67.1 63.2 65.1 64.9 65.1 67.5 64.5 67.3		66.3	2;2
2024-05-24		64.9 65.1	2;2	2:2	2;2
2024-05-24 2024-05-24	11:00:00	67.7	212		
2024-05-24	12:00:00 13:00:00	63.5	-1-		2;2
2024-05-24 2024-05-24	14:00:00	67.3 69.5	2;2		2;2
2024-05-24	16:00:00 17:00:00	67.6	2.2		
2024-05-24 2024-05-24	18:00:00	67.6 69.2 58.9		66.7	2;2
2024-05-25 2024-05-25	09:00:00 10:00:00				2;2
2024-05-25 2024-05-25	11:00:00 12:00:00	55.8 54.3 55.2			11
2024-05-25	13:00:00	56.2	2,2	111	55.4

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Location 1 - Time History Data



- 3.8 There was 100% data coverage at Location 1 during construction hours for the monitoring period covered by this report. The monitor was offline between:
- 3.9 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.



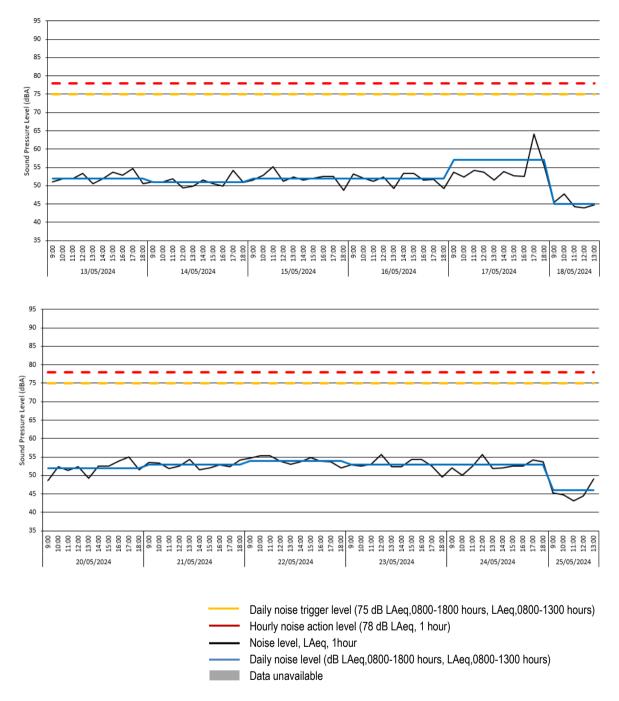
#### Location 2 - Raw Data

<pre># Broadband Results Date [\YYYY-MM-DD] 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-17 2024-05-18 2024-05-20 2024-05-20 2024-05-20 2024-05-20 2024-05-20 2024-05-20 2024-05-21</pre>				
<pre># Broadband Results     Date</pre>	Time	LAeg(60min)	LAeg(10hr)	LAeg(5hr)
[YYYY-MM-DD] 2024-05-13	[hh:mm:ss]	[dB]	[dB]	[dB]
2024-05-13	10:00:00	51.8	-1-	-:-
2024-05-13	12:00:00	53.3	2:2	2:2
2024-05-13 2024-05-13	13:00:00 14:00:00	50.6 51.8	2;2	2;2
2024-05-13	15:00:00	53.6		
2024-05-13	17:00:00	54.6	247.	-:-
2024-05-13	09:00:00	51.0	52.4	202
2024-05-14 2024-05-14	10:00:00 11:00:00	51.0 51.9	2;2	2:2
2024-05-14	12:00:00	49.4	2.2	2.2
2024-05-14	14:00:00	51.5	-1-	
2024-05-14	16:00:00	49.9	2:2	202
2024-05-14 2024-05-14	17:00:00 18:00:00	54.2 50.9	51.2	2:2
2024-05-15	09:00:00	51.5	2:2	2:2
2024-05-15	11:00:00	55.1	-1-	-1-
2024-05-15	13:00:00	52.4	2:2	202
2024-05-15 2024-05-15	14:00:00 15:00:00	51.5	2:2	2:2
2024-05-15 2024-05-15	16:00:00	52.6 52.5	2:2	2:2
2024-05-15	18:00:00	48.7	52.3	-1-
2024-05-16	10:00:00	52.1	2:2	2:2
2024-05-16 2024-05-16	11:00:00 12:00:00	51.2	2:2	2:2
2024-05-16	13:00:00	49.2	2:2	2:2
2024-05-16	15:00:00	53.3	-1-	-1-
2024-05-16	17:00:00	51.7		202
2024-05-16 2024-05-17	18:00:00 09:00:00	49.2	51.9	2:2
2024-05-17 2024-05-17	10:00:00	52.4	2:2	2:2
2024-05-17	12:00:00	53.6	-1-	-1-
2024-05-17	14:00:00	53.8	2:2	202
2024-05-17 2024-05-17	15:00:00 16:00:00	52.7	2:2	2:2
2024-05-17 2024-05-17	17:00:00 18:00:00	64.1 55.3	56.6	2:2
2024-05-18	09:00:00	45.4		-1-
2024-05-18	11:00:00	44.2	2:2	212
2024-05-18 2024-05-18	13:00:00	44.0	2;2	45.4
2024-05-19 2024-05-20	18:00:00 09:00:00	48.6	48.6	2:2
2024-05-20	10:00:00	52.3		
2024-05-20	12:00:00	52.4	-1-	-:-
2024-05-20	14:00:00	52.6	2(2)	2:2
2024-05-20 2024-05-20	15:00:00 16:00:00	52.6 53.8	2:2	2:2
2024-05-20	17:00:00	55.0 51.6	52.3	212
2024-05-21	09:00:00	53.5		-:-
2024-05-21	11:00:00	51.9	2:2	2:2
2024-05-21 2024-05-21	12:00:00	52.6	2:2	2:2
2024-05-21	14:00:00	51.5	2:2	2:2
2024-05-21	16:00:00	52.9	-1-	-1-
2024-05-21	18:00:00	54.1	53.0	-:-
2024-05-22	10:00:00	55.3	2,2	2:2
2024-05-22 2024-05-22	11:00:00 12:00:00	55.4 53.8	2(2)	2:2
2024-05-22 2024-05-22	13:00:00 14:00:00	53.1 53.6	2;2	2;2
2024-05-22 2024-05-22	15:00:00	54.8	2:2	11
2024-05-22 2024-05-22 2024-05-22	17:00:00	53.7	212	202
2024-05-23	18:00:00 09:00:00	57 8	54.1	2;2
2024-05-23 2024-05-23	10:00:00	52.6 53.1 55.6 52.3		2;2
2024-05-23	11:00:00 12:00:00 13:00:00	55.6	-1-	22
2024-05-23	14:00:00	52.4	212	
2024-05-23 2024-05-23 2024-05-23 2024-05-23 2024-05-23	15:00:00	52.4 54.3 54.4 52.5		2;2
2024-05-23 2024-05-23	17:00:00 18:00:00		33.4	2;2
2024-05-24 2024-05-24	00:00:00	52.1 50.0 52.6 55.7	2:2	12
2024 05 24	10:00:00 11:00:00 12:00:00	52.6	22	
2024-05-24 2024-05-24 2024-05-24 2024-05-24 2024-05-24	13:00:00	55.7 51.8	2;2	2;2
2024-05-24 2024-05-24	14:00:00	52.1 52.5		2;2
2024-05-24 2024-05-24	16:00:00 17:00:00	52.5	22	11
2024-05-24	18:00:00	53.6	53.0	
2024-05-25 2024-05-25	09:00:00 10:00:00	52.5 52.5 54.2 53.6 45.2 44.8	2:2	2;2
2024-05-25 2024-05-25	11:00:00 12:00:00	44.4	2:2	2,2
2024-05-25	13:00:00	49.0		45.8

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- 3.10 There was 100% data coverage at Location 2 during construction hours for the monitoring period covered by this report.
- 3.11 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.



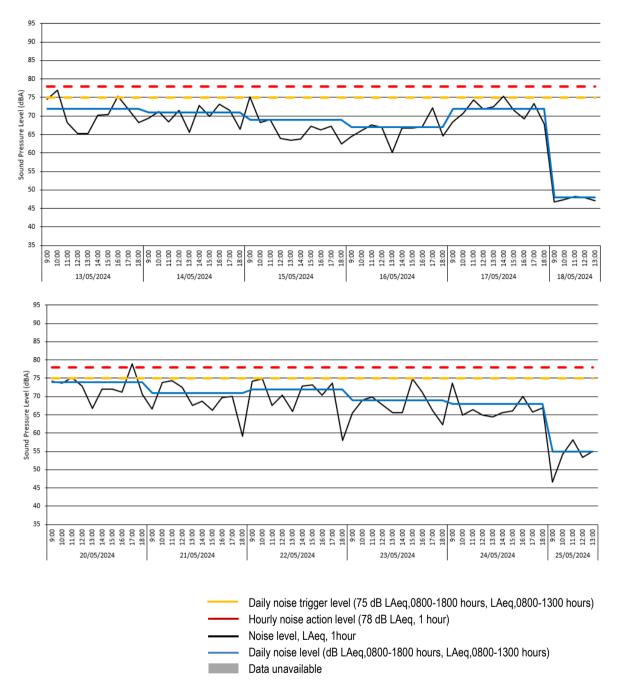
#### Location 3 - Raw Data

<pre># Broadband Results Date [hypy-NM-DD] 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-13 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-14 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-15 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-16 2024-05-17 2024-05-20 2024-05-20 2024-05-20 2024-05-20 2024-05-20 2024-05-20 2024-05-21 2024-05-21 2024-05-21 2024-05-21 2024-05-21 2024-05-21 2024-05-21 2024-05-21 2024-05-21 2024-05-21 2024-05-22 2</pre>				
<pre># Broadband Results     Date</pre>	Time	LAeg(60min)	LAeq(10hr)	LAeq(5hr)
[YYYY-MM-DD] 2024-05-13	[hh:mm:ss] 09:00:00	[dB] 74 5	[dB]	[dB]
2024-05-13	10:00:00	76.9	-1-	-:-
2024-05-13 2024-05-13	12:00:00	65.3	2,2	2:2
2024-05-13 2024-05-13	13:00:00 14:00:00	65.2 70.2	2:2	2:2
2024-05-13	15:00:00	70.3	2:2	2:2
2024-05-13	17:00:00	71.9		-1-
2024-05-13	09:00:00	69.3		202
2024-05-14 2024-05-14	10:00:00 11:00:00	71.2	2;2	2;2
2024-05-14	12:00:00	71.5	212	212
2024-05-14	14:00:00	72.8	-1-	-1-
2024-05-14	16:00:00	73.2	222	2:2
2024-05-14 2024-05-14	17:00:00 18:00:00	71.6	70.6	2:2
2024-05-15	09:00:00	75.2	2:2	212
2024-05-15	11:00:00	69.0	-1-	-1-
2024-05-15	13:00:00	63.5	2:2	2:2
2024-05-15 2024-05-15	14:00:00 15:00:00	63.8	2:2	2:2
2024-05-15	16:00:00	66.3 67.2	2:2	2:2
2024-05-15	18:00:00	62.5	68.5	-1-
2024-05-16	10:00:00	66.1	202	202
2024-05-16 2024-05-16	11:00:00 12:00:00	67.5 66.9	2:2	2:2
2024-05-16	13:00:00	60.1 66.7	212	2.2
2024-05-16	15:00:00	66.7	-1-	-:-
2024-05-16	17:00:00	72.2	2;2	2:2
2024-05-16 2024-05-17	18:00:00 09:00:00	64.6 68.4	67.2	2;2
2024-05-17	10:00:00	70.7		
2024-05-17	12:00:00	71.8	-:-	-:-
2024-05-17 2024-05-17	13:00:00 14:00:00	72.6	2:2	2:2
2024-05-17 2024-05-17	15:00:00 16:00:00	71.6	2;2	2:2
2024-05-17	17:00:00	73.3	72 1	
2024-05-18	09:00:00	46.7		212
2024-05-18 2024-05-18	11:00:00	47.4 48.3	2;2	2:2
2024-05-18 2024-05-18	12:00:00 13:00:00	47.9	2;2	47.5
2024-05-19	18:00:00	74.2	53.9	
2024-05-20	10:00:00	73.6	212	212
2024-05-20	12:00:00	72.9	2;2	202
2024-05-20 2024-05-20	13:00:00 14:00:00	66.7 72.0	2;2	2;2
2024-05-20	15:00:00	72.0	2.2	2.2
2024-05-20	17:00:00	79.0		-1-
2024-05-20 2024-05-21	09:00:00	66.6	73.8	202
2024-05-21 2024-05-21	10:00:00 11:00:00	73.9	2;2	2;2
2024-05-21	12:00:00	72.5		
2024-05-21	14:00:00	68.8	-1-	-1-
2024-05-21	16:00:00	69.7	2:2	202
2024-05-21 2024-05-21	17:00:00 18:00:00	70.0 59.1	70.5	2:2
2024-05-22	09:00:00	74.1	212	212
2024-05-22 2024-05-22	11:00:00 12:00:00	67.6 70.4	-1-	-1-
2024-05-22	13:00:00	65.9	2;2	2,2
2024-05-22 2024-05-22	14:00:00 15:00:00	72.9 73.1	2;2	2;2
2024-05-22 2024-05-22	16:00:00 17:00:00	70.4 73.6	2;2	2:2
2024-05-22 2024-05-23	18:00:00 09:00:00	58.0	71.8	-1-
2024-05-23	10:00:00	65.4 69.1	2;2	2;2
2024-05-23 2024-05-23	10:00:00 11:00:00 12:00:00	69.1 69.9 67.7	2:2	2:2
2024-05-23 2024-05-23	13:00:00 14:00:00		2:2	2:2
2024-05-23	15:00:00	74.8		
2024-05-23 2024-05-23	16:00:00 17:00:00	65.6 74.8 71.2 66.2		2;2
2024-05-23 2024-05-24	18:00:00 09:00:00		69.2	2,2
2024-05-24 2024-05-24 2024-05-24	10:00:00 11:00:00	65.0	22	22
2024-05-24	12:00:00			
2024-05-24 2024-05-24	13:00:00 14:00:00	64.4 65.5 66.0		2;2
2024-05-24 2024-05-24	15:00:00 16:00:00	/0.1		2;2
2024-05-24 2024-05-24	17:00:00 18:00:00	65.8	68.0	22
2024-05-25 2024-05-25	09:00:00 10:00:00	66.9 46.5 54.1		
2024-05-25	11:00:00	58.2		
2024-05-25 2024-05-25	12:00:00 13:00:00	53.4 55.0	2;2	54.8

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- 3.13 There was 100% data coverage at Location 3 during construction hours for the monitoring period covered by this report.
- 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.

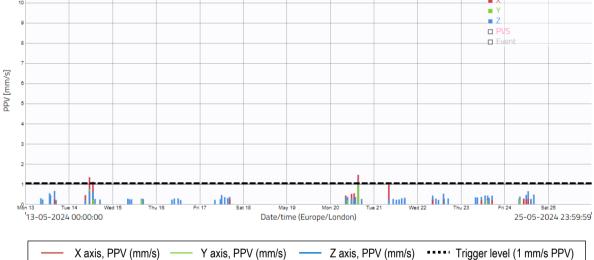


#### **Vibration Monitoring Results**

#### Location 1 – Raw data

Measuri	ng point:	Period:		Order	Value	Date	Time
Holloway - L1		13/05/2024 to 25/05/2024		1	1.54	20/05/2024	15:25
				2	1.37	14/05/2024	11:20
Criteria mm/s PVS		Exceedances		3	1.13	14/05/2024	13:14
1.0		3		4	0.99	21/05/2024	08:19
				5	0.67	13/05/2024	16:04
				6	0.66	24/05/2024	13:06
				7	0.66	14/05/2024	13:40
				8	0.56	14/05/2024	13:08
				9	0.55	13/05/2024	13:21
				10	0.55	20/05/2024	13:10





- 3.15 There was 100% data coverage at Location 1 during construction hours 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 occurred on Monday 20<sup>th</sup> May at 15:25, with a recorded level of 1.5 mm/s PPV. It is worth noting from the raw data above that the exceedances were caused by individual, short-lived events, rather than continuous activity at this location. This will continue to be monitored.
- 3.16 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	13/05/2024 to 25/05/2024		1	1.41	21/05/2024	17:52
			2	1.11	14/05/2024	17:03
Criteria mm/s PVS	Exceedances		3	1.09	17/05/2024	16:11
1.0	5		4	1.07	17/05/2024	16:09
			5	1.01	17/05/2024	16:56
			6	1.00	17/05/2024	16:47
			7	0.99	17/05/2024	16:26
			8	0.97	22/05/2024	17:12
			9	0.96	17/05/2024	16:39
			10	0.93	22/05/2024	17:13
			1			1





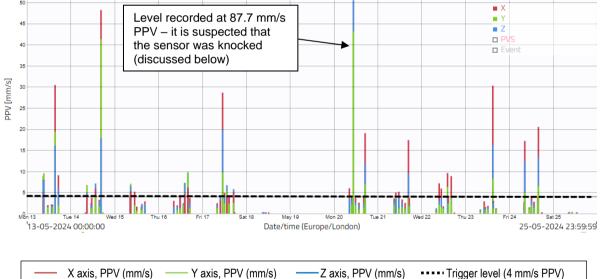
- 3.17 There was 100% data coverage at Location 2 during construction hours for the monitoring period covered by this report. There were five exceedances of the project vibration trigger level of 1.0 mm/s PPV, which are shown in the raw data and graph above. The highest recorded vibration level occurred on Tuesday 21<sup>st</sup> May at 17:52, with a recorded level of 1.4 mm/s PPV.
- 3.18 The site team confirmed that no site activity was taking place within the vicinity of this when several alerts listed above were recorded. This will continue to be monitored. 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.



#### Location 3 - Raw data

Measurin	g point:	Period:		Order	Value	Date	Time	Order	Value	Date	Time	Order	Value	Date	Time
Iolloway	- L3	13/05/202	4 to 25/05/2024	1	87.71	20/05/2024	10:43	31	10.02	23/05/2024	14:24	61	6.30	17/05/2024	13:29
				2	55.11	14/05/2024	16:35	32	9.96	14/05/2024	13:35	62	6.27	22/05/2024	14:34
Criteria m	m/s PVS	Exceedance	ces	3	44.35	14/05/2024	16:33	33	9.88	13/05/2024	09:11	63	6.25	21/05/2024	11:34
4.0		163		4	35.39	13/05/2024	15:27	34	9.85	23/05/2024	14:26	64	6.24	23/05/2024	14:41
				5	35.05	23/05/2024	15:01	35	9.67	13/05/2024	09:25	65	6.20	13/05/2024	08:55
				6	31.59	17/05/2024	11:08	36	9.35	24/05/2024	08:29	66	6.05	17/05/2024	14:39
				7	24.51	24/05/2024	15:58	37	9.34	17/05/2024	11:03	67	6.03	17/05/2024	12:12
				8	22.89	23/05/2024	14:21	38	9.22	22/05/2024	16:16	68	5.98	21/05/2024	16:49
				9	21.88	13/05/2024	15:22	39	9.15	16/05/2024	14:26	69	5.86	20/05/2024	16:40
				10	21.87	20/05/2024	17:07	40	9.04	23/05/2024	15:00	70	5.76	15/05/2024	08:33
				11	20.55	23/05/2024	14:20	41	8.95	24/05/2024	08:22	71	5.74	13/05/2024	08:44
				12	20.27	24/05/2024	08:31	42	8.72	13/05/2024	09:04	72	5.73	23/05/2024	14:07
				13	19.58	17/05/2024	10:48	43	8.70	22/05/2024	14:30	73	5.71	22/05/2024	16:18
				14	18.73	21/05/2024	16:50	44	8.46	13/05/2024	09:05	74	5.69	14/05/2024	16:44
				15	18.01	23/05/2024	15:05	45	8.34	14/05/2024	08:53	75	5.69	14/05/2024	08:54
				16	17.67	20/05/2024	10:42	46	8.17	15/05/2024	08:50	76	5.67	14/05/2024	08:21
				17	17.18	23/05/2024	14:08	47	7.68	13/05/2024	09:03	77	5.61	21/05/2024	09:57
				18	15.06	23/05/2024	14:27	48		21/05/2024	15:52	78	5.61	21/05/2024	09:52
				19	14.84	23/05/2024	14:50	49	7.61	22/05/2024	09:40	79	5.56	23/05/2024	14:09
				20	14.33	23/05/2024	14:28	50	7.60	13/05/2024	09:16	80	5.55	15/05/2024	08:55
				21	14.02	16/05/2024	16:08	51	7.52	17/05/2024	13:28	81	5.55	24/05/2024	08:21
				22	13.59	24/05/2024	08:30	52	7.30	17/05/2024	17:09	82	5.55	21/05/2024	11:19
				23	12.48	13/05/2024	15:16	53	7.28	24/05/2024	17:15	83	5.54	13/05/2024	08:39
				24	12.07	13/05/2024	15:21	54		24/05/2024	08:45	84	5.52	17/05/2024	10:50
				25		13/05/2024	09:17	55		22/05/2024	10:49	85	5.48	17/05/2024	09:54
				26		23/05/2024	14:25	56			08:18	86	5.43	16/05/2024	11:52
				27	11.49	22/05/2024	14:14	57	6.61	17/05/2024	13:26	87	5.33	15/05/2024	10:59
				28		13/05/2024	08:56	58	6.52	20/05/2024	16:37	88	5.32	17/05/2024	12:13
				29	10.82	13/05/2024	17:16	59	6.44	20/05/2024	08:30	89	5.30	14/05/2024	13:36
				30	10.52	23/05/2024	14:06	60	6.43	13/05/2024	08:27	90	5.26	21/05/2024	11:25

#### Location 3 - Time-history graph



3.19 There was 100% data coverage at Location 3 during construction hours for the monitoring period covered by this report. There were 163 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 Monday 20 May at 10:43, with a recorded level of 87.7 mm/s PPV – it is highly likely that the monitor was knocked in this instance, given the fact that no other similar levels were recorded on the same day. The site team confirmed that some of the remaining exceedances are likely to have been caused by excavation works at the location of the site access road along this boundary of the site. It has been confirmed that this excavation work has since been completed.



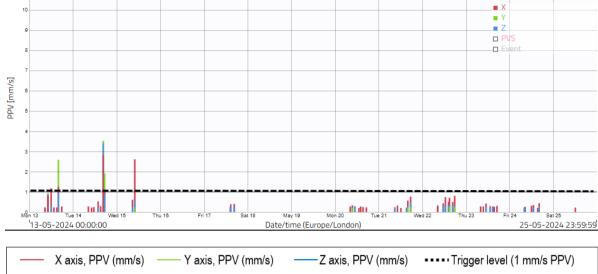
- 3.20 The activity taking place at this location will continue to be monitored; however, it is our understanding that no vibration complaints were received due to the work described above.
- 3.21 As above, it is understood that a significant number of exceedances were likely to have been caused onsite 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 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.
- 3.23 Cass Allen will continue to review noise and vibration emissions and advise on any further practicable measures to minimise vibration.

Measuring point:	Period:	Order	Value	Date	Time
Holloway - L4	13/05/2024 to 25/05/2024	1	3.65	14/05/2024	16:38
		2	3.65	14/05/2024	16:24
Criteria mm/s PVS	Exceedances	3	2.86	14/05/2024	16:01
1.0	15	4	2.82	13/05/2024	15:59
		5	2.77	13/05/2024	15:38
		6	2.67	15/05/2024	09:59
		7		14/05/2024	17:25
		8	2.07	14/05/2024	16:44
		9	1.29	14/05/2024	16:17
		10	1.21	13/05/2024	12:00
		11	1.18	13/05/2024	10:14
		12	1.13	14/05/2024	16:26
		13	1.13	14/05/2024	17:07
		14		14/05/2024	16:25
		15	1.06	14/05/2024	16:36
		16	0.98	14/05/2024	17:26
		17	0.95	14/05/2024	16:57
		18	0.90	14/05/2024	17:03
		19	0.84	22/05/2024	17:49
		20	0.83	13/05/2024	10:12
		21	0.80	21/05/2024	17:36
		22		22/05/2024	12:42
		23	0.77	14/05/2024	17:06
		24	0.76	22/05/2024	14:58
		25	0.74	22/05/2024	14:42
		26	0.72	14/05/2024	16:56
		27	0.70	21/05/2024	17:51
		28		21/05/2024	17:16
		29		21/05/2024	17:46
		30	0.65	14/05/2024	17:12

#### Location 4 – Raw data



Location 4 - Time-history graph



- 3.24 There was 100% data coverage at Location 4 during construction hours for the monitoring period covered by this report. There were two 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 Tuesday 14 May at 16:38, with a recorded level of 3.7 mm/s PPV. Although this recorded level is a relatively small exceedance of the vibration trigger level, this will continue to be monitored. Additionally, the site team confirmed that no site activity was taking place within the vicinity of this when several alerts listed above were recorded. This will continue to be monitored.
- 3.25 This monitor was relocated from the residential dwelling Trecastle Way to within the site boundary on Friday 17<sup>th</sup> May, as requested by the resident. The updated location for this monitor is shown in the latest version of the Construction Monitoring Non-Technical Summary document (ref. TN01-22405-R4 dated 5<sup>th</sup> June 2024) for the NTS website. Due to this monitor now being positioned closer to the site activity, it follows that vibration readings from Friday 17<sup>th</sup> May onwards are likely to be higher than previously recorded. Although no exceedances of the vibration trigger level have since been recorded, this will continue to be monitored.