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COLUMBO GROUP

**THE PARAKEET,
256 KENTISH
TOWN RD**


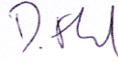
**PLANT NOISE
ASSESSMENT**

12 JUNE 2024

3003-AF-00001-01

**COLUMBO GROUP
THE PARAKEET, 256 KENTISH TOWN RD
PLANT NOISE ASSESSMENT**

DOCUMENT REFERENCE: 3003-AF-00001-01

REVIEW AND AUTHORISATION			
Authored by Adrian Finn	Position Director	Signature 	Date 12/06/2024
Checked by Daniel Flood	Position Senior Consultant	Signature 	Date 12/06/2024

AMENDMENT HISTORY			
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1. INTRODUCTION

- 1.1.1 The Columbo Group has commissioned AF Acoustics Ltd. to undertake a plant noise assessment for the installation of multiple items of plant on the rear first floor roof of The Parakeet, 256 Kentish Town Rd, London NW5 2AA.

1.2 Brief and Scope

- 1.2.1 The brief is to undertake a plant noise assessment for the newly installed plant at the site. If atmospheric noise emissions from the plant do not meet the local authority guidance at the nearest noise sensitive receptors, recommendations will be provided to ensure the requirements of the Camden London Borough Council can be achieved.

2. SITE DESCRIPTION

2.1 Location

- 2.1.1 The Parakeet is a pub located at 256 Kentish Town Rd, London NW5 2AA, within the administrative district of the Camden London Borough Council.
- 2.1.2 The Parakeet is located on the busy Kentish Town Road and the corner of Islip Street. The adjoining property to the north is commercial on the ground floor with residential apartments above. To the south of Islip Street, opposite to new plant items, are residential flats. To the rear of The Parakeet is the Kentish Town Church of England Primary School.
- 2.1.3 Multiple items of plant have been installed on the rear roof of the Parakeet, including a kitchen extract fan, condenser and chiller units. The details of the plant are given later in this report.
- 2.1.4 The closest residential receptors to the installation are located on the upper levels of 268 Kentish Town Road and the flats on the corner of Islip Street and Wolsey Mews.
- 2.1.5 The prevailing ambient noise environment was determined by the well trafficked Kentish Town Road, and building services plant within the vicinity, children playing in the neighbouring school added to the noise environment during break times.
- 2.1.6 The site layout is shown in Figure 2.1

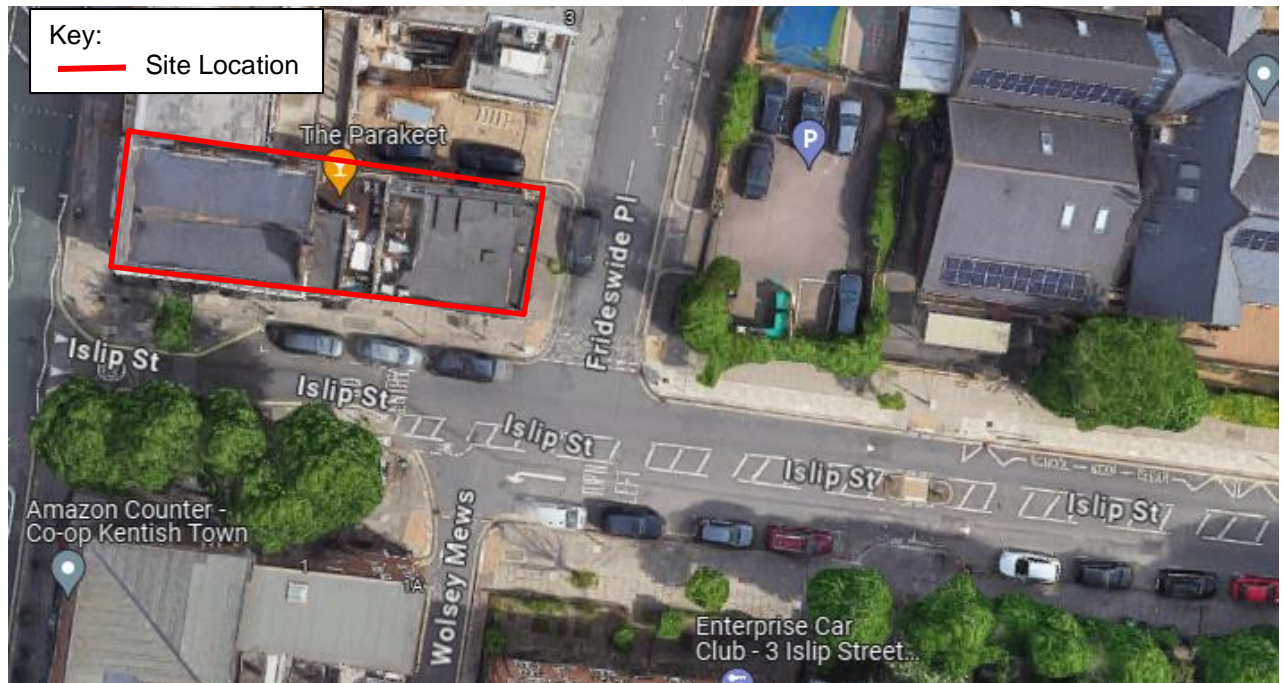


FIGURE 2.1: SITE LOCATION

3. GUIDANCE

3.1 British Standard 4142:2014

3.1.1 BS 4142:2014 'Methods for rating and assessing industrial and commercial sound' describes methods for rating and assessing sound from "fixed installations which comprise mechanical and electrical plant and equipment", amongst other sources of noise.

3.1.2 The methodology contained within BS 4142:2014 uses outdoor sound levels to assess the likely effects of sound on people who might be inside or outside a dwelling or premises used for residential purposes upon which sound is incident.

3.1.3 A summary of the approach set out within BS 4142:2014 is set out below:

- establish the specific sound level of the source(s);
- measure the representative background sound level, typically by measurement close to the receptor location;
- rate the specific sound level to account for any distinguishing characteristics;
- estimate the impact by subtracting the background sound level from the rating level; and
- consider the initial estimate of impact, in the context of the noise and its environment.

3.1.4 An initial estimate of the impact of the specific sound is obtained by subtracting the background sound level from the rating level. Using this approach, BS 4142 states:

*"Typically, the greater this difference, the greater the magnitude of impact
A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context*

A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.

The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context."

3.1.5 Certain acoustic features can increase the significance of the impact over that expected from a basic comparison between specific sound level and the background sound level. These features include tonality and impulsivity, as well as additional characteristics and intermittency of the sound.

3.1.6 If appropriate, a subjective assessment of the plant features can be adopted. Where the plant noise contains tonal elements, the following corrections can be made depending on how perceptible the tone is at the noise receptor.

3.1.7 The specific sound level is rated to account for distinguishing characteristics by using the penalties below:

- 0 dB where the tone is not perceptible
- 2 dB where the tone is just perceptible
- 4 dB where the tone is clearly perceptible
- 6 dB where the tone is highly perceptible

3.1.8 Where the plant noise is impulsive, the following corrections can be made depending on how perceptible the impulsivity is at the noise receptor.

- 0 dB where the impulse is not perceptible
 - 3 dB where the impulse is just perceptible
 - 6 dB where the impulse is clearly perceptible
 - 9 dB where the impulse is highly perceptible
- 3.1.9 For noise which is equally both impulsive and tonal, then both features can be taken into account by linearly summing the corrections for both characteristics.
- 3.1.10 If the plant has other distinctive characteristics, such as intermittency, then a 3 dB correction can be made.
- 3.1.11 If a subjective assessment is not appropriate then an objective assessment can be made. A noise source is deemed to be tonal if the time averaged sound pressure level in a one-third octave band exceeds the level in adjacent one-third octave bands by the level differences given below:
- 15 dB in the low frequency one-third octave bands (25 Hz to 125 Hz)
 - 8 dB in the mid frequency one-third octave bands (160 Hz to 400 Hz)
 - 5 dB in the high frequency one-third octave bands (500 Hz to 10000 Hz)
- 3.1.12 If an objective assessment identifies the plant noise to be tonal then a 6 dB correction must be made.
- 3.1.13 Where background sound levels and rating levels are low, absolute levels might be as, or more, relevant than the margin by which the rating level exceeds the background. This is especially true at night.
- 3.1.14 **Camden London Borough Council - Policy A4 Noise and Vibration**
- 3.1.15 The Camden Local Plan seeks to ensure that noise and vibration is controlled and managed. Noise and Vibration thresholds are provided, appended to the local plan documentation. The noise limits relating to industrial and commercial noise sources are reproduced below in Table 3.1.
- 3.1.16 The Local Plan states that planning permission will not be granted for A) development likely to generate unacceptable noise and vibration impacts; or B) development sensitive to noise in locations which experience high levels of noise, unless appropriate attenuation measures can be provided and will not harm the continued operation of existing uses.

3.1.17 It is also stated that Camden will only grant permission for noise generating development, including any plant and machinery, if it can be operated without causing harm to amenity.

Existing Noise sensitive receptor	Assessment Location	Design Period	LOAEL (Green)	LOAEL to SOAEL (Amber)	SOAL (Red)
Dwellings	Garden used for main amenity (free field) and Outside living or dining or bedroom window (façade)	Day	'Rating level' 10dB below background	'Rating level' between 9dB below and 5dB above background	'Rating level' greater than 5dB above background
Dwellings	Outside bedroom window (façade)	Night	'Rating level' 10dB below background and no events exceeding 57 dB L_{Amax}	'Rating level' between 9dB below and 5dB above background or noise events between 57 dB and 88dB L_{Amax}	'Rating level' greater than 5dB above background and/or events exceeding 88 dB L_{Amax}

TABLE 3.1: CAMDEN LOCAL PLAN INDUSTRIAL AND COMMERCIAL NOISE THRESHOLDS

4. NOISE SURVEY AND MEASUREMENTS

4.1 Unattended Noise Survey

- 4.1.1 An unattended noise survey was undertaken by Adrian Finn of AF Acoustics.
- 4.1.2 The duration of the survey was between 11:30 on Tuesday 4 June to 12:30 on Wednesday 5 June 2024.
- 4.1.3 The microphone was mounted to the balcony balustrade at a height of 1.5m above ground-floor level. The monitoring position is considered representative of the noise environment at the windows of the closest residential receptors.
- 4.1.4 The prevailing ambient noise environment was determined by the well trafficked Kentish Town Road, and building services plant within the vicinity, children playing in the neighbouring school added to the noise environment during break times.
- 4.1.5 The measurement location is shown below in Figure 4.1.

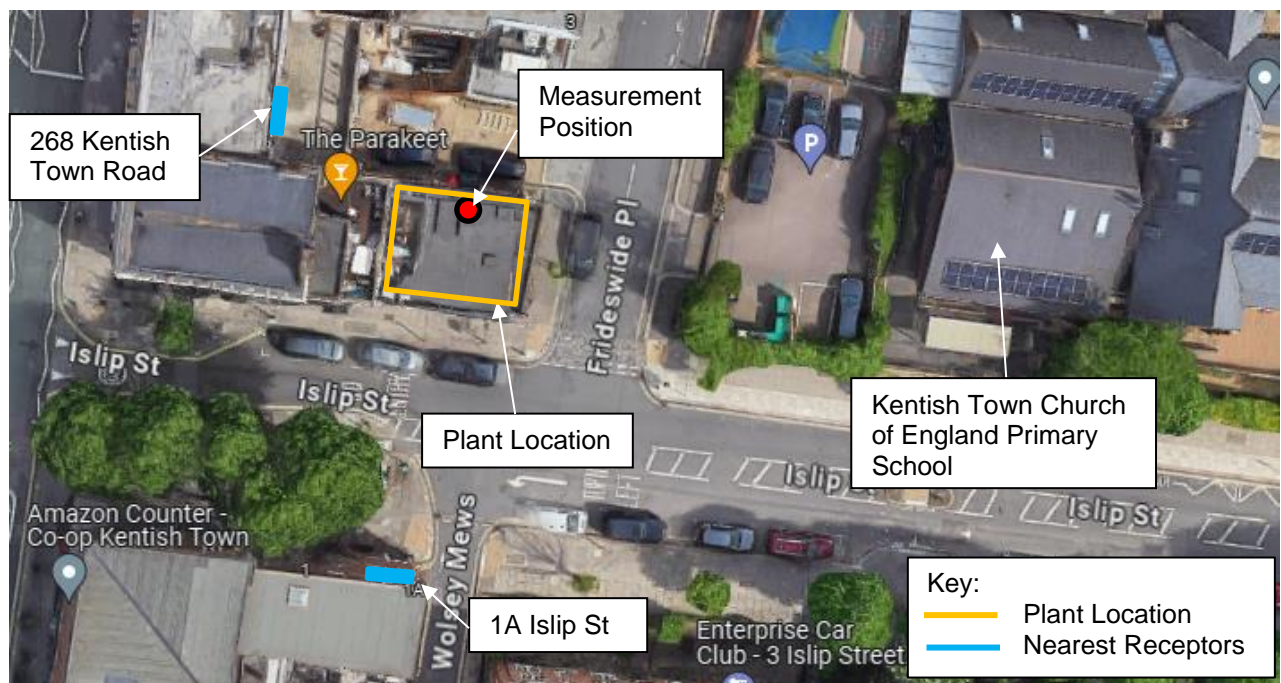


FIGURE 4.1: MEASUREMENT LOCATION

- 4.1.6 The microphone was protected with a windshield during the noise survey. Measurements were carried out in accordance with the requirements of BS 7445-2:1991 and ISO 1996-2:1987.
- 4.1.7 The sound level meter was calibrated both before and on completion of the survey, with no calibration drift observed.
- 4.1.8 The equipment used is shown in Table 4.1.

Name	Serial Number	Last Calibrated
NTI Audio XL2-TA Class 1 Sound Level Meter	A2A-18530-E0	January 2023
NTI Audio MA220 Pre-amplifier	9566	January 2023
NTI Audio MC230A Microphone	A19842	January 2023
Norsonic 1251 Calibrator	30900	July 2023

TABLE 4.1: MEASUREMENT EQUIPMENT

4.2 Measurement Weather Conditions

4.2.1 The weather during the survey was dry and clear. The temperature ranged from 10 to 24°C. Average wind speeds remained below 3 ms⁻¹. The weather is deemed to have caused no significant effect during the measurement period.

4.3 Results

4.3.1 The results of the continuous noise monitoring survey are presented in graphical form in Figure A1 of Appendix A and summarised in Table 4.2.

4.3.2 The period averaged L_{Aeq} noise levels are presented below. The L_{A90} background noise level has been derived considering the most commonly occurring 15 minute period, whilst the $L_{Amax,F}$ noise levels are the 90th percentile of the measured maximum noise levels.

Time period	Measured Noise Levels (dB re 2.0 x 10 ⁻⁵ Pa)		
	$L_{Amax,F}$	$L_{Aeq,T}$	Typical $L_{A90,T}$
Daytime (07:00 – 23:00)	80	59	55
Night-time (23:00 – 07:00)	71	55	54

TABLE 4.2*: SUMMARY OF UNATTENDED NOISE MEASUREMENTS

4.3.3 The above results may have been influenced by some of the plant on the roof running 24 hours a day including the chiller units. Out of an abundance of caution and in order to use background noise levels that would be similar to noise levels incident at the nearest residential receptors it would be best to use measured noise levels from a nearby property. Unfortunately, it was not possible to measure at the nearest residential receptors as we did not have permission from the local residents and it would not be safe to leave the measurement equipment in an open position outside the two nearest receptors.

4.3.4 A noise survey was undertaken by others at the rear 325 Kentish Town Road and the noise levels measured are likely to be similar to the noise levels experienced at the rear of The Parakeet, with all the plant turned off. The stated lowest measured background noise levels for the operating periods of the plant are summarised below:

All plant (09:00 to 01:00) 45 dB $L_{A90,15min}$

(night-time (23:00 - 07:00) 43 dB $L_{A90,15min}$

5. PLANT NOISE ASSESSMENT

5.1 Operating Hours

- 5.1.1 It is understood that all the plant will operate during the kitchen operating hours of the Parakeet, 09:00 – 23:00 Monday to Saturday and 09:00 - 21:30 on Sundays. The chiller units have the potential to operate 24 hours a day.

5.2 Noise Rating Limit

- 5.2.1 In accordance with the guidance of the Camden London Borough Council, as presented in Section 3.2, Table 5.1 presents the maximum noise rating level which must not be exceeded at the nearest noise sensitive receptors.

Measurement Period	Assessed Background Noise Level dB L_{A90}	Noise Rating Level Design Criteria	Plant Noise Rating Level Limit dB $L_{Ar,Tr}$
09:00 – 23:00	45	10dB below the background noise level	35
24 hours	43	10dB below the background noise level	33

TABLE 5.1: TARGET BACKGROUND NOISE LEVEL

5.3 Plant Noise Levels

- 5.3.1 The following plant have been installed on the roof. The plant is labelled in Appendix A and the noise levels are presented in Table 5.2.

Name	Plant	Parameter	Sound Level at Octave band Centre Frequency, dB							
			63	125	250	500	1000	2000	4000	8000
CU01	Fujitsu AOYG36LMTA	Manufacturer's levels L_p at 1m	58	63	52	52	52	47	49	33
CU02	Mitsubishi PUHZ-ZRP71WHA2	Manufacturer's levels L_p at 1m	57	56	54	49	50	45	41	33
CU03	Daikin RX71k2VC1B	Manufacturer's levels L_p at 1m	51	53	51	49	45	41	35	27
CU04	Hubbard Premium	Measured L_p at 0.3m	76	71	71	64	62	59	50	43
CU05	Mitsubishi PUHZ-ZRP71WHA2	Manufacturer's levels L_p at 1m	57	56	54	49	50	45	41	33
CU06	KD PAD008M1 Chiller	Measured L_p at 0.2m	69	69	70	63	61	57	50	43
CU07	ETA unit	Measured L_p at 0.3m	75	77	72	68	65	60	55	50
CU08	Refrigeration Plant	Measured L_p at 0.5m	72	66	57	52	44	39	35	25
KF01	Helios GBD 560/4/4 T 120 Main Kitchen Fan	Manufacturer's levels Radiation L_{wA}	-	60	57	58	57	56	55	49
KE01	Helios GBD 560/4/4 T 120 Main Kitchen Extract	Manufacturer's levels Outlet Side L_{wA}	-	65	74	79	80	75	70	62
KE02	1st floor Kitchen Extract	Measured L_p at 0.5m	72	69	69	65	64	63	58	52

TABLE 5.2: PLANT NOISE LEVEL

5.4 Location of Nearest Sensitive Receptors

Receptor 1 - 1A Islip St

The closest windows with the potential to be affected by noise from the plant installation have been identified as belonging to 1A Islip St, with residential windows located 21m from the nearest items of plant. A wooden slatted fence has been put around the edge of the 1st floor roof. However, the slats have gaps between each slat and acoustically this fence does not reduce the noise levels.

Receptor 2 - 286 Kentish Town Road

The flats above 286 Kentish Town Road have the potential to be impacted by the plant on The Parakeet. All the plant, apart from the main kitchen extract, on the roof is screened by the building of The Parakeet and as such a very conservative path length difference of 1m from the plant to the nearest residential window has been used in the plant noise calculations. It is considered that the kitchen extract fan has direct line of sight to the flats above 286 Kentish Town Road.

5.5 Calculated Noise Levels

5.5.1 Based on the information above Table 5.3 provides a summary of the calculated plant noise at the nearest residential receptor. The calculation sheets are presented in Appendix B.

Property	Assessment Period	Target Plant Noise Rating Level dB $L_{Ar,Tr}$	Plant Specific Sound Level dB $L_{Aeq,Tr}$
Receptor 1 – 1A Islip St	Daytime	35	52
	Nighttime	33	35
Receptor 2 - 286 Kentish Town Road	Daytime	35	55
	Nighttime	33	19

TABLE 5.3: PREDICTED NOISE LEVELS AT NEAREST RECEPTORS – NO MITIGATION

5.5.2 A 3 dB penalty for intermittency has been applied to the calculated noise levels in accordance with BS4142:2014 apart from the calculated plant noise levels at 286 Kentish Town Road, where the plant will be inaudible at night time. There are no tones or other acoustic characteristics present from the proposed plant.

5.5.3 The results of the assessment indicate that the atmospheric noise emissions from the proposed plant installation do not achieve the requirements of the Camden London Borough Council, and mitigation should be applied which is detailed in the next section.

5.6 Mitigation

5.6.1 To meet the requirements of the Camden London Borough Council, AF Acoustics recommends that the current fencing along the 1st floor southern roof be replaced with a closed boarded fence of equal height. This barrier should be solid, imperforate, with a minimum mass per unit area of 15kg/m².

5.6.2 The main kitchen extract and the 1st floor kitchen extract should fitted with attenuators with a minimum insertion loss as shown in Table 5.4.

Location	Example Specification	Insertion Loss (dB) at Octave band Centre Frequency (Hz)							
		63	125	250	500	1k	2k	4k	8k
Main kitchen extract	Helios RSD 560/1200	-	6	10	19	19	16	13	10
1st floor kitchen extract	Melanix 900mm 25% free area	7	11	16	16	17	20	20	28

TABLE 5.4: REQUIRED ATTENUATOR INSERTIONS LOSS

5.6.3 Predicted noise levels resulting from the proposed mitigation are presented below in 5.6.3.

Property	Assessment Period	Target Plant Noise Rating Level dB $L_{Ar,Tr}$	Plant Specific Sound Level dB $L_{Aeq,Tr}$
Receptor 1 – 1A Islip St	Daytime	35	33

Property	Assessment Period	Target Plant Noise Rating Level dB $L_{Ar,Tr}$	Plant Specific Sound Level dB $L_{Aeq,Tr}$
	Nighttime	33	24
Receptor 2 - 286 Kentish Town Road	Daytime	35	35
	Nighttime	33	19

TABLE 5.5: PREDICTED NOISE AT NEAREST RESIDENTIAL RECEPTOR – WITH MITIGATION

- 5.6.4 No penalties have been applied to the calculated noise levels in accordance with BS4142:2014. There are no tones or other acoustic characteristics present from the proposed plant.
- 5.6.5 The results of the assessment indicate that the atmospheric noise emissions from the proposed plant installation can achieve the requirements of the Camden London Borough Council, subject to the adoption of proposed mitigation.

6. CONCLUSION

- 6.1.1 The Columbo Group commissioned AF Acoustics Ltd. to undertake a plant noise assessment for the installation of multiple items of plant installed in the rear first floor roof of The Parakeet, 256 Kentish Town Rd, London NW5 2AA.
- 6.1.2 AF Acoustics have performed measurements of the prevailing ambient noise conditions on site and undertaken the plant noise assessment in accordance with BS4142 and the requirements of the Camden London Borough Council.
- 6.1.3 Due to the measured noise levels being influenced by the plant running on the roof, the background noise levels have been determined by noise levels measured at the rear of 325 Kentish Town Road, which is considered to be similar to the noise levels experienced at the rear of The Parakeet, with all the plant turned off.
- 6.1.4 The results of the measurements have been used to determine the required criteria for atmospheric noise emissions from the proposed plant installation.
- 6.1.5 Noise calculations based on the plant data have been undertaken to the nearest noise-sensitive receptors.
- 6.1.6 The results of the assessment indicate that the atmospheric noise emissions from the proposed plant installation will achieve the requirements of the Camden London Borough Council with mitigation, as set out in this report, and should therefore be considered acceptable.

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APPENDIX A: FIGURES

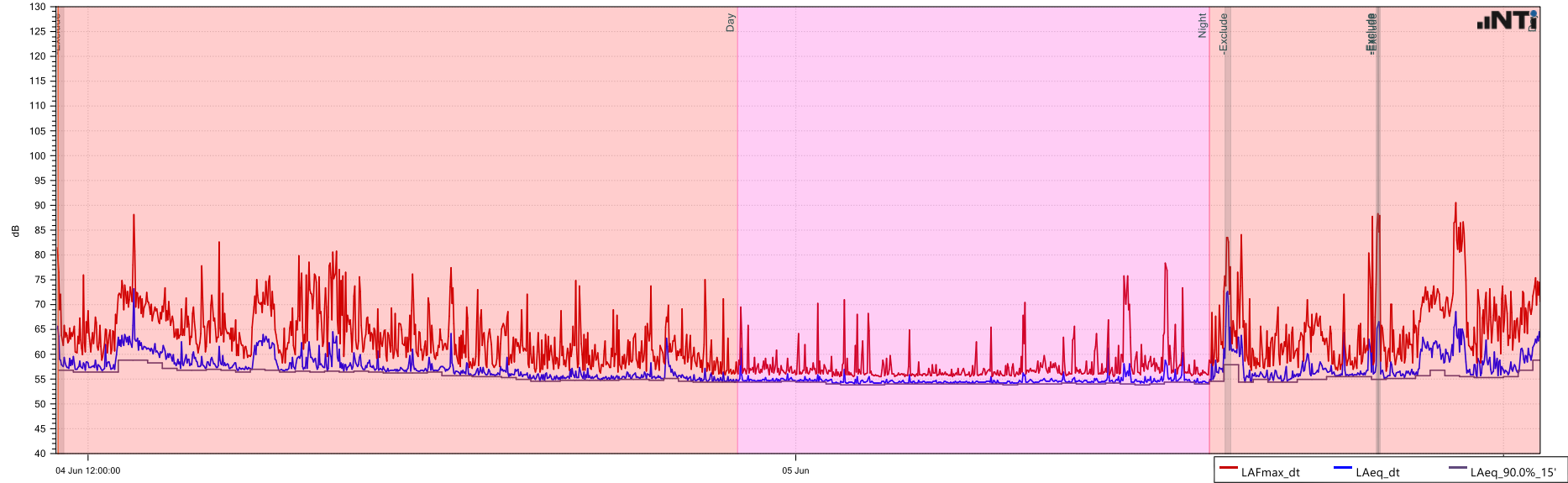


FIGURE A1: NOISE MEASUREMENT RESULTS – THE PARAKEET

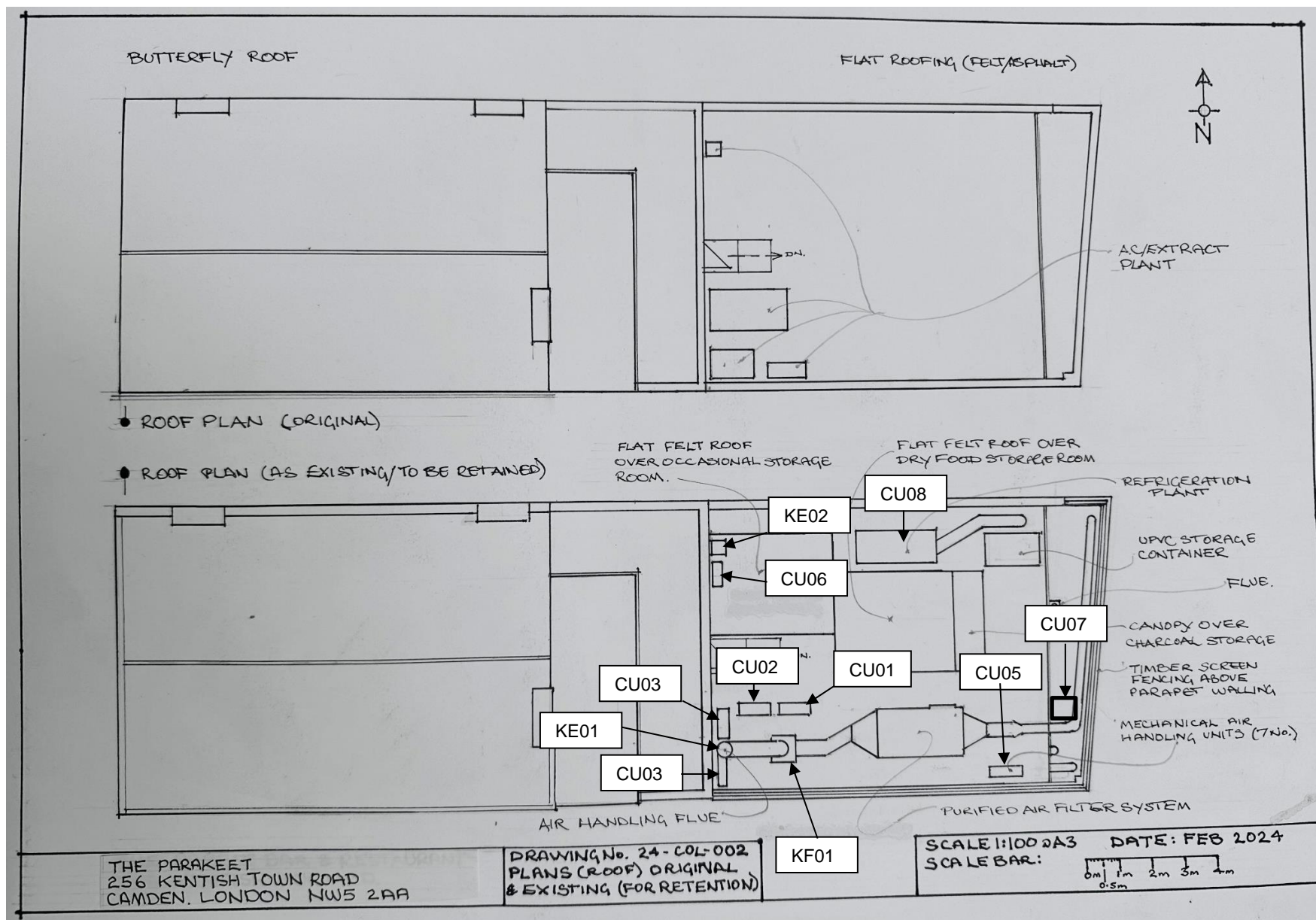


FIGURE A2: PLANT LAYOUT

APPENDIX B: TABLES



Job No.	3003	Job Title	Parakeet Pub
Date Created	06 Jun 2024	By	AF
Date Revised	11 Jun 2024	Rev	34
Sheet	2		
Date Reviewed	11 Jun 2024	By	AF
Review Type	Self Check	Review Status	No Comments

Plant noise calculations to 1A Islip St - Daytime - No Mitigation

Item / Description		Rating/Broadband/Input			31.5	Octave Band Centre Frequency, Hz							
		Rating	dB	dB(A)		63	125	250	500	1k	2k	4k	8k
KE01 - Main Kitchen Extract					-34.4		60.2	72.6	78.6	79.6	74.6	69.6	61.6
Point Source Propagation Loss		21.0 m	3.0 dB			-34.4	-34.4	-34.4	-34.4	-34.4	-34.4	-34.4	-34.4
Noise at nearest receptor				48.1 (A)		-34.4	25.8	38.2	44.2	45.2	40.2	35.2	27.2
CU01 - Fujitsu AOYG36LMTA					-26.4	58	63	52	52	52	47	49	33
Ratio of Distances - Point Source		1.0 m	21.0 m			-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4
Noise at nearest receptor				30.3 (A)		31.6	36.6	25.6	25.6	25.6	20.6	22.6	6.6
CU02 - Mitsubishi PUHZ-ZRP71WHA2					-26.4	57	56	54	49	50	45	41	33
Ratio of Distances - Point Source		1.0 m	21.0 m			-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4
Noise at nearest receptor				27.4 (A)		30.6	29.6	27.6	22.6	23.6	18.6	14.6	6.6
CU03 - Daikin RX71k2VC1B					-26.0	51	53	51	49	45	41	35	27
Ratio of Distances - Point Source		1.0 m	20.0 m			-26.0	-26.0	-26.0	-26.0	-26.0	-26.0	-26.0	-26.0
Noise at nearest receptor				24.5 (A)		25.0	27.0	25.0	23.0	19.0	15.0	9.0	1.0
CU04 - Hubbard Premium					-36.0	76	71	71	64	62	59	50	43
Ratio of Distances - Point Source		0.3 m	19.0 m			-36.0	-36.0	-36.0	-36.0	-36.0	-36.0	-36.0	-36.0
Noise at nearest receptor				31.8 (A)		39.8	34.8	34.5	28.1	26.4	22.7	14.4	7.1
KF01 - Helios GBD 560/4/4 T 120	Lw				-34.0		60	57	58	57	56	55	49
Point Source Propagation Loss		20.0 m	3.0 dB			-34.0	-34.0	-34.0	-34.0	-34.0	-34.0	-34.0	-34.0
Noise at nearest receptor				28.7 (A)		-34.0	26.0	23.0	24.0	23.0	22.0	21.0	15.0
CU05 - Mitsubishi PUHZ-ZRP71WHA2					-26.0	57	56	54	49	50	45	41	33
Ratio of Distances - Point Source		1.0 m	20.0 m			-26.0	-26.0	-26.0	-26.0	-26.0	-26.0	-26.0	-26.0
Noise at nearest receptor				27.8 (A)		31.0	30.0	28.0	23.0	24.0	19.0	15.0	7.0
CU06 - KD - PAD008M1 Chiller					-42.3	69	69	70	63	61	57	50	43
Ratio of Distances - Point Source		0.2 m	26.0 m			-42.3	-42.3	-42.3	-42.3	-42.3	-42.3	-42.3	-42.3
Noise at nearest receptor				24.2 (A)		27.2	27.2	27.4	20.4	18.7	14.5	7.9	0.5
KE02 - 1st floor Kitchen Extract					-34.3	72	69	69	65	64	63	58	52
Ratio of Distances - Point Source		0.5 m	26.0 m			-34.3	-34.3	-34.3	-34.3	-34.3	-34.3	-34.3	-34.3
Noise at nearest receptor				35.0 (A)		37.5	35.1	34.4	30.5	29.7	28.2	23.7	17.6
CU07 -ETA unit					74	75	77	72	68	65	60	55	50
‡ Ratio of Distances - Point Source		0.3 m	20.0 m		-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7
‡ Noise at nearest receptor				23.3 (A)		32.7	33.3	26.4	20.6	15.0	7.0	-1.4	-9.0
CU08 - Refrigeration Plant					78	72	66	57	52	44	39	35	25
Ratio of Distances - Point Source		0.5 m	21.0 m		-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7
Noise at nearest receptor				13.8 (A)		33.4	26.1	15.6	8.1	-1.8	-10.3	-17.0	-29.8
= Logarithmic Sum	Noise level from all plant			49 (A)		43.8	42.3	41.8	44.7	45.5	40.7	35.9	28.0
Rating penalties	Intermittent			3.0									
Rating Level				52									

TABLE B1: PLANT NOISE CALCULATIONS TO 1A ISLIP ST - DAYTIME - NO MITIGATION

Plant noise calculations to 1A Islip St - Daytime - Mitigation

Item / Description		Rating/Broadband/Input			Octave Band Centre Frequency, Hz									
		Rating	dB	dB(A)	31.5	63	125	250	500	1k	2k	4k	8k	
KE01 - Main Kitchen Extract	Lw				-34.4	-8.8	60.2	72.6	78.6	79.6	74.6	69.6	61.6	
Point Source Propagation Loss		21.0 m	3.0 dB			-34.4	-34.4	-34.4	-34.4	-34.4	-34.4	-34.4	-34.4	
RSD 560/1200	needs attenuator					-6.0	-10.0	-19.0	-19.0	-16.0	-13.0	-10.0		
Noise at nearest receptor				31.0 (A)		-43.2	19.8	28.2	25.2	26.2	24.2	22.2	17.2	
CU01 - Fujitsu AOYG36LMTA					-26.4	58.0	63.0	52.0	52.0	52.0	47.0	49.0	33.0	
Ratio of Distances - Point Source		1.0 m	21.0 m			-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7	
Noise at nearest receptor				18.0 (A)		25.3	29.4	16.8	14.5	11.8	3.9	2.9	-16.1	
CU02 - Mitsubishi PUHZ-ZRP71WHA2					-26.4	57.0	56.0	54.0	49.0	50.0	45.0	41.0	33.0	
Ratio of Distances - Point Source		1.0 m	21.0 m			-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7	
Noise at nearest receptor				15.3 (A)		24.3	22.4	18.8	11.5	9.8	1.9	-5.1	-16.1	
CU03 - Daikin RX71k2VC1B					-26.0	51.0	53.0	51.0	49.0	45.0	41.0	35.0	27.0	
Ratio of Distances - Point Source		1.0 m	20.0 m			-26.0	-26.0	-26.0	-26.0	-26.0	-26.0	-26.0	-26.0	
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7	
Noise at nearest receptor				13.0 (A)		18.8	19.8	16.2	12.0	5.3	-1.7	-10.7	-21.7	
CU04 - Hubbard Premium					-36.0	75.8	70.8	70.5	64.2	62.4	58.8	50.4	43.1	
Ratio of Distances - Point Source		0.3 m	19.0 m			-36.0	-36.0	-36.0	-36.0	-36.0	-36.0	-36.0	-36.0	
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7	
Noise at nearest receptor				20.8 (A)		33.6	27.6	25.7	17.1	12.7	6.1	-5.3	-15.6	
KF01 - Helios GBD 560/4/4 T 120	Lw				-34.0		60.0	57.0	58.0	57.0	56.0	55.0	49.0	
Point Source Propagation Loss		20.0 m	3.0 dB			-34.0	-34.0	-34.0	-34.0	-34.0	-34.0	-34.0	-34.0	
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7	
Noise at nearest receptor				14.7 (A)		-40.2	18.8	14.2	13.0	9.3	5.3	1.3	-7.7	
CU05 - Mitsubishi PUHZ-ZRP71WHA2					-26.0	57.0	56.0	54.0	49.0	50.0	45.0	41.0	33.0	
Ratio of Distances - Point Source		1.0 m	20.0 m			-26.0	-26.0	-26.0	-26.0	-26.0	-26.0	-26.0	-26.0	
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7	
Noise at nearest receptor				15.8 (A)		24.8	22.8	19.2	12.0	10.3	2.3	-4.7	-15.7	
CU06 - KD - PAD008M1 Chiller					-42.3	69.5	69.4	69.6	62.7	61.0	56.8	50.1	42.8	
Ratio of Distances - Point Source		0.2 m	26.0 m			-42.3	-42.3	-42.3	-42.3	-42.3	-42.3	-42.3	-42.3	
Noise at nearest receptor				24.2 (A)		27.2	27.2	27.4	20.4	18.7	14.5	7.9	0.5	
KE02 - 1st floor Kitchen Extract					-34.3	71.8	69.4	68.7	64.8	64.0	62.5	58.0	51.9	
Ratio of Distances - Point Source		0.5 m	26.0 m			-34.3	-34.3	-34.3	-34.3	-34.3	-34.3	-34.3	-34.3	
Melanix 900mm 25% free area	needs attenuator					0.0	-7.0	-11.0	-16.0	-16.0	-17.0	-20.0	-20.0	-28.0
Noise at nearest receptor				17.9 (A)		30.5	24.1	18.4	14.5	12.7	8.2	3.7	-10.4	
CU07 - ETA unit					74.2	75.4	77.0	71.7	68.1	65.3	60.2	54.7	50.2	
Ratio of Distances - Point Source		0.3 m	20.0 m		-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7	
Noise at nearest receptor				23.3 (A)		32.7	33.3	26.4	20.6	15.0	7.0	-1.4	-9.0	
CU08 - Refrigeration Plant					77.8	72.1	65.7	56.8	51.5	44.4	38.9	35.1	25.3	
Ratio of Distances - Point Source		0.5 m	21.0 m		-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7	
Noise at nearest receptor				13.8 (A)		33.4	26.1	15.6	8.1	-1.8	-10.3	-17.0	-29.8	
= Logarithmic Sum	Noise level from all plant			33 (A)		39.5	37.3	33.8	28.6	27.8	25.0	22.5	17.3	
Rating penalties	No penalties			0.0										
Rating Level				33										

TABLE B2: PLANT NOISE CALCULATIONS TO 1A ISLIP ST - DAYTIME – MITIGATION

Plant noise calculations to 1A Islip St - Nighttime - No Mitigation

Item/ Description		Rating/Broadband/Input			Octave Band Centre Frequency, Hz									
		Rating	dB	dB(A)	31.5	63	125	250	500	1k	2k	4k	8k	
					31.5									
CU04 - Hubbard Premium							75.8	70.8	70.5	64.2	62.4	58.8	50.4	43.1
Ratio of Distances - Point Source		0.3 m	21.0 m			-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9
Noise at nearest receptor				30.9 (A)		38.9	33.9	33.6	27.3	25.5	21.9	13.5	6.2	
					-36.9									
CU06 - KD - PAD008M1 Chiller							69.5	69.4	69.6	62.7	61.0	56.8	50.1	42.8
Ratio of Distances - Point Source		0.2 m	21.0 m			-40.4	-40.4	-40.4	-40.4	-40.4	-40.4	-40.4	-40.4	-40.4
Noise at nearest receptor				26.0 (A)		29.0	29.0	29.2	22.2	20.5	16.4	9.7	2.4	
					-40.4									
CU08 - Refrigeration Plant							72.1	65.7	56.8	51.5	44.4	38.9	35.1	25.3
Ratio of Distances - Point Source		0.5 m	21.0 m			-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7	
Noise at nearest receptor				13.8 (A)		33.4	26.1	15.6	8.1	-1.8	-10.3	-17.0	-29.8	
					-32.5									
Logarithmic Sum	Noise level from all plant			32 (A)		39.3	35.1	35.0	28.5	26.7	22.9	15.0	7.7	
Rating penalties	Intermittent			3.0										
Rating Level				35										

TABLE B3: PLANT NOISE CALCULATIONS TO 1A ISLIP ST - NIGHTTIME - NO MITIGATION

Plant noise calculations to 1A Islip St - Night time - Mitigation

Item/ Description		Rating/Broadband/Input			Octave Band Centre Frequency, Hz								
		Rating	dB	dB(A)	31.5	63	125	250	500	1k	2k	4k	8k
					31.5								
CU04 - Hubbard Premium						75.8	70.8	70.5	64.2	62.4	58.8	50.4	43.1
Ratio of Distances - Point Source		0.3 m	21.0 m			-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7
Noise at nearest receptor				19.9 (A)	32.7	26.7	24.8	16.3	11.8	5.2	-6.2	-16.4	
CU06 - KD - PAD008M1 Chiller					-40.4	69.5	69.4	69.6	62.7	61.0	56.8	50.1	42.8
Ratio of Distances - Point Source		0.2 m	21.0 m			-40.4	-40.4	-40.4	-40.4	-40.4	-40.4	-40.4	-40.4
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7
Noise at nearest receptor				15.0 (A)		22.8	21.8	20.4	11.2	6.8	-0.3	-9.9	-20.3
CU08 - Refrigeration Plant					77.8	72.1	65.7	56.8	51.5	44.4	38.9	35.1	25.3
= Ratio of Distances - Point Source		0.5 m	21.0 m		-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5	-32.5
Path Length difference	0.25m					-6.2	-7.2	-8.8	-11.0	-13.7	-16.7	-19.7	-22.7
Noise at nearest receptor				13.8 (A)		33.4	26.1	15.6	8.1	-1.8	-10.3	-17.0	-29.8
Logarithmic Sum	Noise level from all plant			21 (A)	33.1	27.9	26.2	17.4	13.0	6.3	-4.7	-14.9	
Rating penalties	Intermittent			3.0									
Rating Level		Rating Level		24									

TABLE B4: PLANT NOISE CALCULATIONS TO 1A ISLIP ST - NIGHTTIME – MITIGATION

Plant noise calculations to 286 Kentish Town Road - Daytime - No Mitigation

Item / Description		Rating/Broadband/Input				Octave Band Centre Frequency, Hz							
		Rating	dB	dB(A)		31.5	63	125	250	500	1k	2k	4k
KE01 - Main Kitchen Extract	Lw						-8.8	60.2	72.6	78.6	79.6	74.6	69.6
Point Source Propagation Loss		14.0 m	3.0 dB		-30.9	-30.9	-30.9	-30.9	-30.9	-30.9	-30.9	-30.9	-30.9
Noise at nearest receptor				51.6 (A)		-39.7	29.3	41.7	47.7	48.7	43.7	38.7	30.7
CU01 - Fujitsu AOYG36LMTA							58.0	63.0	52.0	52.0	52.0	47.0	49.0
Ratio of Distances - Point Source		1.0 m	14.0 m		-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				15.7 (A)		25.6	28.2	14.4	11.4	8.4	0.4	-0.6	-19.6
CU02 - Mitsubishi PUHZ-ZRP71WHA2							57.0	56.0	54.0	49.0	50.0	45.0	41.0
Ratio of Distances - Point Source		1.0 m	14.0 m		-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				12.8 (A)		24.6	21.2	16.4	8.4	6.4	-1.6	-8.6	-19.6
CU03 - Daikin RX71k2VC1B							51.0	53.0	51.0	49.0	45.0	41.0	35.0
Ratio of Distances - Point Source		1.0 m	15.0 m		-23.5	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				9.4 (A)		18.0	17.6	12.8	7.8	0.8	-6.2	-15.2	-26.2
CU04 - Hubbard Premium							75.8	70.8	70.5	64.2	62.4	58.8	50.4
Ratio of Distances - Point Source		0.3 m	16.0 m		-34.5	-34.5	-34.5	-34.5	-34.5	-34.5	-34.5	-34.5	-34.5
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				16.4 (A)		31.8	24.4	21.3	12.0	7.2	0.6	-10.8	-21.1
KF01 - Helios GBD 560/4/4 T 120	Lw							60.0	57.0	58.0	57.0	56.0	55.0
Point Source Propagation Loss		15.0 m	3.0 dB		-31.5	-31.5	-31.5	-31.5	-31.5	-31.5	-31.5	-31.5	-31.5
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				10.7 (A)		-41.0	16.6	10.8	8.9	4.8	0.8	-3.2	-12.2
CU05 - Mitsubishi PUHZ-ZRP71WHA2							57.0	56.0	54.0	49.0	50.0	45.0	41.0
Ratio of Distances - Point Source		1.0 m	21.0 m		-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				9.2 (A)		21.1	17.7	12.9	4.9	2.9	-5.1	-12.1	-23.1
CU06 - KD - PAD008M1 Chiller							69.5	69.4	69.6	62.7	61.0	56.8	50.1
Ratio of Distances - Point Source		0.2 m	11.0 m		-34.8	-34.8	-34.8	-34.8	-34.8	-34.8	-34.8	-34.8	-34.8
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				14.7 (A)		25.2	22.8	20.2	10.2	5.5	-1.7	-11.3	-21.7
KE02 - 1st floor Kitchen Extract							71.8	69.4	68.7	64.8	64.0	62.5	58.0
Ratio of Distances - Point Source		0.5 m	11.0 m		-26.8	-26.8	-26.8	-26.8	-26.8	-26.8	-26.8	-26.8	-26.8
Noise at nearest receptor				42.4 (A)		44.9	42.6	41.8	37.9	37.1	35.7	31.2	25.1
CU07 -ETA unit					74.2	75.4	77.0	71.7	68.1	65.3	60.2	54.7	50.2
Ratio of Distances - Point Source		0.3 m	21.0 m		-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				17.0 (A)		29.1	28.3	20.1	13.6	7.7	-0.4	-8.8	-16.4
CU08 - Refrigeration Plant					77.8	72.1	65.7	56.8	51.5	44.4	38.9	35.1	25.3
Ratio of Distances - Point Source		0.5 m	16.0 m		-30.1	-30.1	-30.1	-30.1	-30.1	-30.1	-30.1	-30.1	-30.1
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				11.4 (A)		32.5	23.8	12.1	3.8	-6.3	-14.9	-21.6	-34.5
- Logarithmic Sum	Noise level from all plant			52 (A)		45.6	43.3	44.8	48.1	49.0	44.3	39.4	31.7
Rating penalties	Intermittent			3.0									
Rating Level				55									

TABLE B5: PLANT NOISE CALCULATIONS TO 286 KENTISH TOWN ROAD - DAYTIME - NO MITIGATION

Plant noise calculations to 286 Kentish Town Road - Daytime - Mitigation

Item / Description		Rating/Broadband/Input			Octave Band Centre Frequency, Hz								
		Rating	dB	dB(A)	31.5	63	125	250	500	1k	2k	4k	8k
KE01 - Main Kitchen Extract	Lw												
Point Source Propagation Loss		14.0 m	3.0 dB		-30.9								
RSD 560/1200							-6.0	-10.0	-19.0	-19.0	-13.0	-10.0	
Noise at nearest receptor				34.5 (A)	-39.7	23.3	31.7	28.7	29.7	27.7	25.7	20.7	
CU01 - Fujitsu AOYG36LMTA						58.0	63.0	52.0	52.0	52.0	47.0	49.0	33.0
Ratio of Distances - Point Source		1.0 m	14.0 m		-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				15.7 (A)	25.6	28.2	14.4	11.4	8.4	0.4	-0.6	-19.6	
CU02 - Mitsubishi PUHZ-ZRP71WHA2						57.0	56.0	54.0	49.0	50.0	45.0	41.0	33.0
Ratio of Distances - Point Source		1.0 m	14.0 m		-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9	
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				12.8 (A)	24.6	21.2	16.4	8.4	6.4	-1.6	-8.6	-19.6	
CU03 - Daikin RX71k2VC1B						51.0	53.0	51.0	49.0	45.0	41.0	35.0	27.0
Ratio of Distances - Point Source		1.0 m	15.0 m		-23.5	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5	
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				9.4 (A)	18.0	17.6	12.8	7.8	0.8	-6.2	-15.2	-26.2	
CU04 - Hubbard Premium						75.8	70.8	70.5	64.2	62.4	58.8	50.4	43.1
Ratio of Distances - Point Source		0.3 m	16.0 m		-34.5	-34.5	-34.5	-34.5	-34.5	-34.5	-34.5	-34.5	
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				16.4 (A)	31.8	24.4	21.3	12.0	7.2	0.6	-10.8	-21.1	
KF01 - Helios GBD 560/4/4 T 120	Lw						60.0	57.0	58.0	57.0	56.0	55.0	49.0
Point Source Propagation Loss		15.0 m	3.0 dB		-31.5	-31.5	-31.5	-31.5	-31.5	-31.5	-31.5	-31.5	
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				10.7 (A)	-41.0	16.6	10.8	8.9	4.8	0.8	-3.2	-12.2	
CU05 - Mitsubishi PUHZ-ZRP71WHA2						57.0	56.0	54.0	49.0	50.0	45.0	41.0	33.0
Ratio of Distances - Point Source		1.0 m	21.0 m		-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	-26.4	
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				9.2 (A)	21.1	17.7	12.9	4.9	2.9	-5.1	-12.1	-23.1	
CU06 - KD - PAD008M1 Chiller						69.5	69.4	69.6	62.7	61.0	56.8	50.1	42.8
Ratio of Distances - Point Source		0.2 m	11.0 m		-34.8	-34.8	-34.8	-34.8	-34.8	-34.8	-34.8	-34.8	
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				14.7 (A)	25.2	22.8	20.2	10.2	5.5	-1.7	-11.3	-21.7	
KE02 - 1st floor Kitchen Extract						71.8	69.4	68.7	64.8	64.0	62.5	58.0	51.9
Ratio of Distances - Point Source		0.5 m	11.0 m		-26.8	-26.8	-26.8	-26.8	-26.8	-26.8	-26.8	-26.8	
Melanix 900mm 25% free area					0.0	-7.0	-11.0	-16.0	-16.0	-17.0	-20.0	-28.0	
Noise at nearest receptor				25.4 (A)	37.9	31.6	25.8	21.9	20.1	15.7	11.2	-2.9	
CU07 - ETA unit					74.2	75.4	77.0	71.7	68.1	65.3	60.2	54.7	50.2
† Ratio of Distances - Point Source		0.3 m	21.0 m		-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
† Noise at nearest receptor				17.0 (A)	29.1	28.3	20.1	13.6	7.7	-0.4	-8.8	-16.4	
CU08 - Refrigeration Plant					77.8	72.1	65.7	56.8	51.5	44.4	38.9	35.1	25.3
Ratio of Distances - Point Source		0.5 m	16.0 m		-30.1	-30.1	-30.1	-30.1	-30.1	-30.1	-30.1	-30.1	
Path Length difference	1m				-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7	
Noise at nearest receptor				11.4 (A)	32.5	23.8	12.1	3.8	-6.3	-14.9	-21.6	-34.5	
= Logarithmic Sum	Noise level from all plant			35 (A)	40.6	36.0	33.7	29.9	30.3	28.0	25.9	20.7	
Rating penalties	No penalties			0.0									
Rating Level				35									

TABLE B6: PLANT NOISE CALCULATIONS TO 286 KENTISH TOWN ROAD - DAYTIME – MITIGATION

Plant noise calculations to 286 Kentish Town Road - Nighttime

Item/ Description		Rating/Broadband/Input			31.5	63	Octave Band Centre Frequency, Hz						
		Rating	dB	dB(A)			125	250	500	1k	2k	4k	8k
					-34.5								
CU04 - Hubbard Premium						75.8	70.8	70.5	64.2	62.4	58.8	50.4	43.1
Ratio of Distances - Point Source		0.3 m	16.0 m			-34.5	-34.5	-34.5	-34.5	-34.5	-34.5	-34.5	-34.5
Path Length difference	1m					-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7
Noise at nearest receptor				16.4 (A)		31.8	24.4	21.3	12.0	7.2	0.6	-10.8	-21.1
CU06 - KD - PAD008M1 Chiller					-34.8	69.5	69.4	69.6	62.7	61.0	56.8	50.1	42.8
Ratio of Distances - Point Source		0.2 m	11.0 m			-34.8	-34.8	-34.8	-34.8	-34.8	-34.8	-34.8	-34.8
Path Length difference	1m					-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7
Noise at nearest receptor				14.7 (A)		25.2	22.8	20.2	10.2	5.5	-1.7	-11.3	-21.7
CU08 - Refrigeration Plant					77.8	72.1	65.7	56.8	51.5	44.4	38.9	35.1	25.3
Ratio of Distances - Point Source		0.5 m	16.0 m		-30.1	-30.1	-30.1	-30.1	-30.1	-30.1	-30.1	-30.1	-30.1
Path Length difference	1m					-9.5	-11.8	-14.7	-17.6	-20.6	-23.6	-26.7	-29.7
Noise at nearest receptor				11.4 (A)		32.5	23.8	12.1	3.8	-6.3	-14.9	-21.6	-34.5
Logarithmic Sum	Noise level from all plant			19 (A)		32.7	26.7	23.8	14.2	9.5	2.6	-8.0	-18.3
Rating Level				19									

TABLE B7: PLANT NOISE CALCULATIONS TO 286 KENTISH TOWN ROAD - NIGHTTIME

APPENDIX C: TERMINOLOGY RELATING TO NOISE

Sound Pressure	Sound, or sound pressure, is a fluctuation in air pressure over the static ambient pressure.
Sound Pressure Level	The sound level is the sound pressure relative to a standard reference pressure of $20\mu\text{Pa}$ (20×10^{-6} Pascals) on a decibel scale.
Sound Power Level (L_w)	is the total amount of sound energy inherent in a particular sound source, independent of its environment. It is a logarithmic measure of the sound power in comparison to a specified reference level (usually 10^{-12} W).
Decibel (dB)	A scale for comparing the ratios of two quantities, including sound pressure and sound power. The difference in level between two sounds s_1 and s_2 is given by $20 \log_{10} (s_1 / s_2)$. The decibel can also be used to measure absolute quantities by specifying a reference value that fixes one point on the scale. For sound pressure, the reference value is $20\mu\text{Pa}$.
A-weighting, dB(A)	The unit of sound level, weighted according to the A-scale, which takes into account the increased sensitivity of the human ear at some frequencies.
$L_{Aeq,T}$	Equivalent continuous A-weighted sound pressure level. The value of the A-weighted sound pressure level of a continuous steady sound that, within a measurement time interval T, has the same A-weighted sound energy as the actual time-varying sound
$L_{90,T}$	L_{90} is the noise level exceeded for 90% of the period T (i.e. the quietest 10% of the measurement) and is often used to describe the background noise level.
$L_{max,T}$	A noise level index defined as the maximum noise level during the period T. L_{max} is sometimes used for the assessment of occasional loud noises, which may have little effect on the overall L_{eq} noise level but will still affect the noise environment. Unless described otherwise, it is measured using the 'fast' sound level meter response.
Specific Noise	The noise source under investigation for assessing the likelihood of complaints.
Rating Level	The specific noise level plus any adjustment for the characteristic features of the noise.
Free field	Far from the presence of sound reflecting objects (except the ground), usually taken to mean at least 3.5m.
Façade	At a distance of 1m in front of a large sound reflecting object such as a building façade.

APPENDIX D: LIMITATIONS TO THE REPORT

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