

RESULTS OF A 48 HOUR NOISE LEVEL SURVEY CARRIED OUT ON EACH SIDE OF THE

EXISTING ROOFTOP PLANT COMPOUND ON THE HOLIDAY INN HOTEL

LOCATED AT 30 JAMESTOWN ROAD, LONDON NW1

AND A REPORT ON THE NOISE IMPACT OF THE PROPOSED NEW EXTERNAL PLANT

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Authorised for

Release by : I J Marchant

Client : 4C Hotel Group/Sabinus Building Services

Project : Holiday Inn Hotel, 30 Jamestown Road, London NW1

QF10750/PF7182/PF7276/RP1A

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RESULTS OF A 48 HOUR NOISE LEVEL SURVEY CARRIED OUT ON EACH SIDE OF THE EXISTING ROOFTOP PLANT COMPOUND ON THE HOLIDAY INN HOTEL LOCATED AT 30 JAMESTOWN ROAD, LONDON NW1

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1.0. INTRODUCTION

This report details the results of two 48 hour noise surveys carried out on either side of the existing roof level plant compound on the Holiday Inn Hotel which is located at 30 Jamestown Road, London NW1. The two surveys were carried out concurrently over the same 48 hour period.

The locations of the microphones were as follows,

- Location A East Side of the Hotel
- Location B West Side of the Hotel

The objectives of the survey were as follows:

- To assess the proposal to install new air cooled condensers and other items of mechanical plant into a new sixth floor level roof plant compound above the existing fifth floor of the Hotel building.
- To identify the nearest residential and commercial properties that might be affected by noise from the new plant.
- To establish the existing background noise level outside the nearest affected properties.
- To recommend noise limits and any necessary mitigating measures to ensure that the operation of the new plant does not disturb the occupants of the nearest affected properties and meets the planning directives of the local authority with regard to noise.

This report has been divided into the following sections for ease of analysis:

- 1.0. INTRODUCTION
- 2.0. SITE DESCRIPTION
- 3.0. TEST INSTRUMENTATION
- 4.0. TEST PROCEDURE
- 5.0. RESULTS AND EVALUATION OF NOISE CRITERIA
- 6.0. DISCUSSION OF RESULTS

2.0. SITE DESCRIPTION

The Holiday Inn Hotel is an existing five storey building located at 30 Jamestown Road next to Camden Lock. The building fronts onto Jamestown Road and the rear overlooks the canal and the lock gates. There are office buildings to the East and West of the Hotel. The existing plant that serves the building is contained within a plant compound at the rear of the fifth floor.

The adjacent buildings are shown on the attached Photos C, D, E and F and an aerial view of the site is shown on Photo L.

3.0. <u>TEST INSTRUMENTATION</u>

All measurement equipment used during the survey complied with the requirements of BS4142:2014 "Method for Rating Industrial Noise Affecting Mixed Residential and Industrial Areas". Details of the equipment are as follows:

Integrating Sound Level Meter: Rion type NL-52 class 1 Sound Level Meters fitted with Rion type UC-59 ½ inch condenser microphones. Serial No 01121378 & 01232570

Statistical Analysis Modules: Built in module capable of computing the percentile levels LA₁, LA₁₀,

LA₅₀, LA₉₀ and LA₉₉ and also the LA_{eq} level.

Acoustic Calibrator: Bruel & Kjaer type 4231 electronic calibrator. Serial No 1934160

Calibration was performed before and after the survey and was +/- 0.1 dB from the reference source.

3.1. Existing Noise Climate

Road traffic travelling on surrounding roads could be heard at the start and end of the survey, so the noise levels measured will include contributions from road vehicles.

Commercial jet aircraft were observed at medium and high altitude during the manned periods at the start and the end of the survey, so it is possible that the noise levels measured could include contributions from medium altitude jet aircraft.

There are no overland railways nearby, so the noise levels measured will not include contributions from rail noise.

Construction works were not observed being carried out in the vicinity during the manned periods at the start and end of the survey so the sound levels recorded should be typical of normal daytime background noise levels.

4.0. TEST PROCEDURE

The survey was conducted during a continuous 48 hour period from 8:42 am on Monday the 23rd of May 2022 to 8:55 am on Wednesday the 25th of May 2022.

Data was continuously acquired throughout the measurement period with the individual averaging time for statistical noise data set to 15 minutes. The following 'A' weighted statistical measurements were recorded concurrently: -

- LA₁ The Sound Pressure Level exceeded for 1% of the measurement period.
- LA₁₀ The Sound Pressure Level exceeded for 10% of the measurement period.
- LA₅₀ The Sound Pressure Level exceeded for 50% of the measurement period.
- LA₉₀ The Sound Pressure Level exceeded for 90% of the measurement period. LA₉₀ is considered to represent the "background noise level" during the measurement period and is used for the assessment of noise to determine the likelihood of complaints (See BS 4142:2014).
- LA₉₉ The Sound Pressure Level exceeded for 99% of the measurement period.
- LA_{eq} The continuous steady state Sound Pressure Level that has the same acoustic energy as the real fluctuating level.

4.1. Measurement Positions

The microphones were mounted on vertical booms that were located on each side of the Hotel at fifth floor level. The microphones were oriented vertically and were approximately 2 - 2.5m above the fifth floor level of the building. The location of the microphones can be seen on the attached Photos A, B, E, F and L.

Location A - East Side of the Hotel on the balcony of room 505.

Location B - West Side of the Hotel on the high level fence.

Both of the microphones were connected by low impedance cables to their associated instrumentation which was contained within individual weatherproof housings.

4.2 Weather Conditions

The weather conditions prevailing during the measurement period were in line with those recommended in BS 4142:2014: -

Weather daytime: - Clear Weather night time: - Clear Wind daytime: - Calm Wind night time: - Calm

The microphones were protected during the survey by acoustically transparent wind balloons.

5.0. RESULTS AND EVALUATION OF NOISE CRITERIA

The raw test data, gathered during the noise survey, is given in Appendix 'A 'of this report.

The 'A' Weighted L_{eq} levels measured over each 15 minute interval throughout the 24-hour period, denoted by LA_{eq} , (15 mins), are displayed as bar graphs on the attached Sketches No QF/10750/T1 and -/T3 at the back of this report.

The 'A' Weighted percentile levels measured over each 15 minute interval throughout the 24-hour period, denoted by LA_{10} (15 mins), LA_{50} (15 mins) and LA_{90} (15 mins) are displayed as line graphs on the attached Sketches No QF/10750/T2 and -/T4 at the back of this report.

5.1. Summary of Results

The table QF/10750/D1 below summarises the noise levels taken over the 24-hour period in terms of the maximum and minimum Sound Pressure Levels recorded.

Table QF/10750/D1 - Summary of Maximum and Minimum Noise Levels

	Location	LA_{eq}	LA ₁	LA ₁₀	LA ₅₀	LA ₉₀	LA ₉₉
Minimum	Α	44dBA	47dBA	45dBA	43dBA	42dBA	42dBA
William	В	48dBA	50dBA	49dBA	47dBA	47dBA	47dBA
Mavimum	Α	57dBA	65dBA	62dBA	55dBA	52dBA	50dBA
Maximum	В	73dBA	73dBA	72dBA	60dBA	58dBA	58dBA

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The table QF/10750/D2 below states the minimum LA_{90} noise levels recorded during the time periods of 7.00am to 23.00pm (Daytime / Evening) and 23.00pm and 7.00am (Night time)

Table QF/10750/D2 - Minimum LA90 Noise Levels - Daytime/Evening and Night time

	Location	Minimum LA ₉₀
Daytime/Evening (7am to 11pm)	Α	45dBA
Daytime/Evening (rain to 11pm)	В	50dBA
Night Time (11pm to 7am)	Α	42dBA
Night Time (Tiphi to Tahi)	В	47dBA

5.2. <u>Summary of the Local Authority's planning requirements regarding noise for noise sensitive properties</u>

The local planning authority is the London Borough of Camden.

The Camden Local Plan sets out the Council's planning policies and replaces the Core Strategy and Development Policy planning documents (adopted in 2010). It ensures that Camden continues to have robust, effective and up-to-date planning policies that respond to changing circumstances and the borough's unique characteristics and contribute to delivering the Camden Plan and other local priorities.

The Local Plan will cover the period from 2016-2031. Policy A4 of The Local Plan is entitled Noise and Vibration and states:

The Council will seek to ensure that noise and vibration is controlled and managed. Development should have regard to Camden's Noise and Vibration thresholds (Appendix 3). We will not grant planning permission for a) a development likely to generate unacceptable noise and vibration impacts or b) a 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. We will only grant permission for noise generating development, including any plant and machinery, if it can be operated without causing harm to amenity. We will also seek to minimise the impact on local amenity from deliveries and from the demolition and construction phases of development.

The parts of Appendix 3 that we have identified as relevant to this application are as follows:

Appendix 3: Noise thresholds

The significance of noise impact varies dependent on the different noise sources, receptors and times of operation presented for consideration within a planning application. Therefore, Camden's thresholds for noise and vibration evaluate noise impact in terms of various 'effect levels' described in the National Planning Policy Framework and Planning Practice Guidance:

- NOEL No Observed Effect Level
- LOAEL Lowest Observed Adverse Effect Level
- SOAEL Significant Observed Adverse Effect Level

Three basic design criteria have been set for proposed developments, these being aimed at guiding applicants as to the degree of detailed consideration needed to be given to noise in any planning application. The design criteria outlined below are defined in the corresponding noise tables. The values will vary depending on the context, type of noise and sensitivity of the receptor:

- Green where noise is considered to be at an acceptable level.
- Amber where noise is observed to have an adverse effect level, but which may be considered acceptable when assessed in the context of other merits of the development.
- Red where noise is observed to have a significant adverse effect.

Table C: Noise levels applicable to proposed industrial and commercial developments (including plant and machinery)

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 57dBL _{Amax}	'Rating level' between 9dB below and 5dB above background or noise events between 57dB and 88dB L _{Amax}	'Rating level' greater than 5dB above background and/or events exceeding 88dB L _{Amax}

^{*10}dB should be increased to 15dB if the noise contains audible tonal elements (day and night). However, if it can be demonstrated that there is no significant difference in the character of the residual background noise and the specific noise from the proposed development then this reduction may not be required. In addition, a frequency analysis (to include, the use of Noise Rating (NR) curves or other criteria curves) for the assessment of tonal or low frequency noise may be required.

**levels given are for dwellings, however, levels are use specific and different levels will apply dependent on the use of the premises.

The periods in Table C correspond to 0700 hours to 2300 hours for the day and 2300 hours to 0700 hours for the night. The Council will take into account the likely times of occupation for types of development and will be amended according to the times of operation of the establishment under consideration.

There are certain smaller pieces of equipment on commercial premises, such as extract ventilation, air conditioning units and condensers, where achievement of the rating levels (ordinarily determined by a BS:4142 assessment) may not afford the necessary protection. In these cases, the Council will generally also require an NR curve specification of NR35 or below, dependant on the room (based upon measured or predicted $L_{\rm eq}$ (5mins) noise levels in octave bands, 1 metre from the façade of affected premises, where the noise sensitive premise is located in a quiet background area.

5.3. <u>Determination of noise sensitive property design criteria</u>

We believe that the sound produced by the new plant will not be intermittent or contain tones. To comply with a green rating from the table above the new plant should therefore have a Sound Pressure Level 10dB below the lowest LA₉₀ background noise level at 1 metre from the nearest noise sensitive window.

The lowest recorded LA₉₀ background noise levels measured during the 24 hour survey period are given in Table QF/10750/D2 above.

Applying the above criteria gives limiting rating levels as listed in table QF/10750/D3 below:

Table QF/10750/D3 - Proposed Design Rating Levels (LAeq)

Existing Noise sensitive receptor	Design Period	Locatio n	Lowest measured background level	Proposed rating level	Proposed Local Authority criteria
	Day	Α	45dBA	35dBA	Green
Dwellings	Day	В	50dBA	40dBA	Green
	Night	А	42dBA	32dBA	Green
	Migrit	В	47dBA	37dBA	Green

5.4. Determination of commercial design criteria

The use of the commercial premises on both sides of the Hotel consists mostly of offices. It is therefore proposed that the recommendations given in BS8233:2014 Table 2 should be considered.

Good Reasonable
Open Plan offices: LA_{eq.T} 45dBA 50dBA

We propose that the lower of these rating levels is adopted, i.e. 45dBA.

Assuming a 10dB noise reduction due to a partially open window the rating level at 1 metre external to the nearest affected office windows should be 45dBA + 10dB = 55dBA.

5.5. Summary of external noise criteria

Based upon the lowest measured LA_{90} background noise levels during the survey and the Council's requirements outlined above we summarise the design rating levels to be adopted for this project in table QF/10750/D4:-

Table QF/10750/D4 - recommended design rating levels LAr,T

Type of premises	Location	L _{Ar,T} (7am - 11pm)	L _{Ar,T} (11pm - 7am)
Noise sensitive	Α	35dBA	32dBA
Noise sensitive	В	40dBA	37dBA
Commercial	A & B	-	55dBA

6.0. DISCUSSION OF RESULTS

It is proposed to build additional bedrooms on the fifth floor within the space currently occupied by the plant. It is proposed to create a new plant compound, directly above these new bedrooms, in a new sixth floor roof area. The plant to be located within the compound will consist of extract fans, Air Handling Units and new Daikin air cooled condensers.

The proposed location of the plant compound at sixth floor roof level is shown on the attached Sabinus Building Services' sketch drawing SK-123 and the layout of the bedrooms on the fifth floor is shown on the attached Dexter Moren Associates drawing No A-100-105 (F5).

The Daikin condensers are likely to create a reverberant noise level of approximately 75dBA within the compound and the nearest office windows are at a distance of approximately 8 metres. Allowing for a distance correction $10 \log A_7/A_1 = -9dB$ the likely noise level at 1 metre from the adjacent office windows is likely to be approximately 66dBA.

In order to ensure that the noise from the plant does not exceed the limiting LAeq noise level of 55dBA at 1 metre from these office windows it will be necessary to have a screen around the sixth floor plant compound that provides a noise reduction of at least 11dBA.

In order for the fans and Air Handling Units to not increase the reverberant noise level within the plant compound these fan units should be fitted with atmospheric silencers on the fresh air inlets and exhaust air outlets in order to reduce the noise output from these units to no more than 65dBA at 1 mketre from the inlets/outlets.

The plant compound screen at the rear and sides should be a solid acoustic panel with an inner acoustically absorbent surface so as to provide a greater attenuation than 11dBA. To protect the new fifth floor bedroom windows at the rear of the building this screen should provide some 29dBA in order to achieve a noise level of approximately 40dBA outside these windows. This will ensure that noise level in the bedrooms will be below 30dBA which is the acceptable noise level for uninterrupted sleep as recommended by the World Health Organisation and included in BS8233:2014.

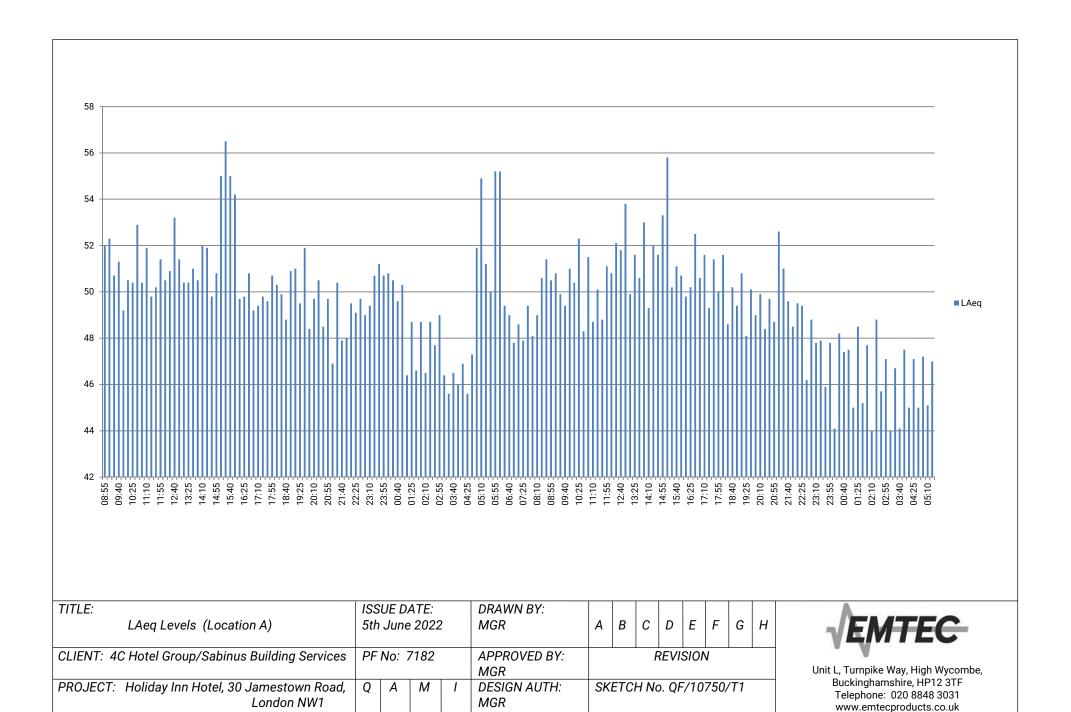
The bedrooms at the front of the fifth floor and the offices opposite the eastern façade of the hotel will benefit from a greater distance loss and the screening to the front of the plant compound will have to provide approximately 20dBA attenuation to ensure that the noise level in the bedrooms will be below 30dBA. This screening could be high performance acoustic louvres or solid acoustic panels.

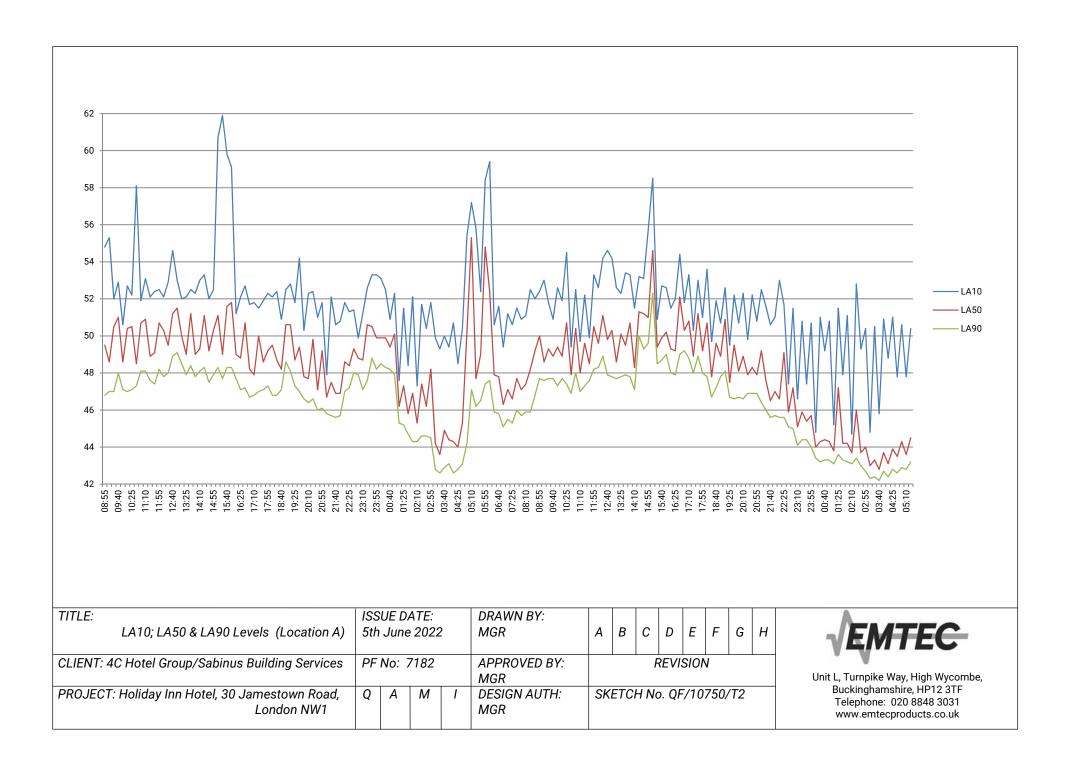
The slab below the plant compound will need to have an Rw:50dB acoustic performance and be continuous. The walls of the staircase cores up from the fifth floor to the sixth floor plant compound should have an Rw:45dB acoustic performance. Any doors which allow access to the plant compound from the staircase cores should maintain this acoustic performance by being two Rw:35dB doors either side of a suitable lobby.

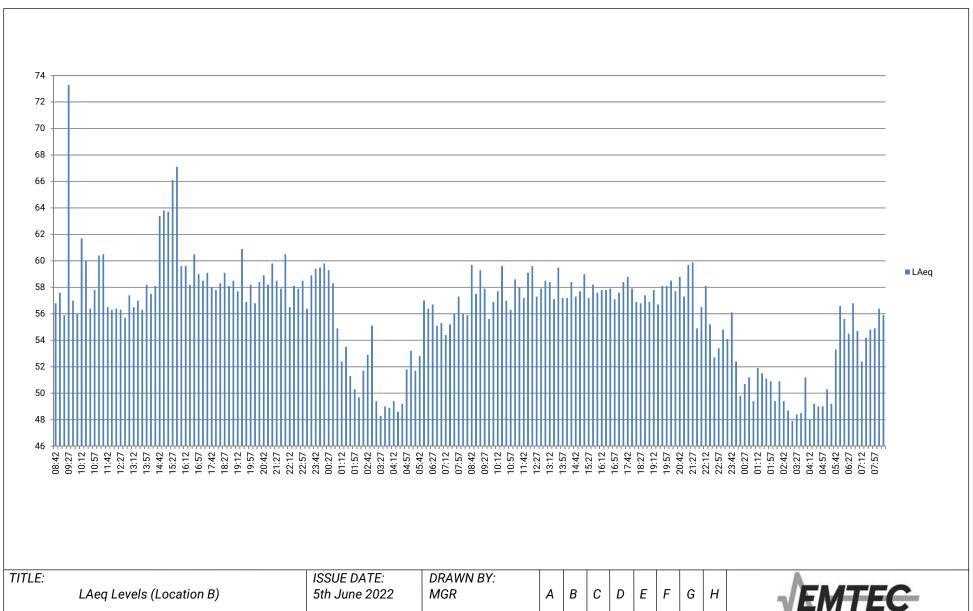
All of the plant within the plant compound should be isolated from the structure of the building by suitable anti-vibration mountings having a minimum isolation efficiency in excess of 95%.

If the above recommendations are followed then the installation of the new plant within the new sixth floor level plant area will meet the planning requirements of the local authority, ensure that no complaints will be received from the neighbouring office buildings and allow an acceptable noise level within the proposed fifth floor bedrooms.

Emtec Products Ltd 9th November 2022



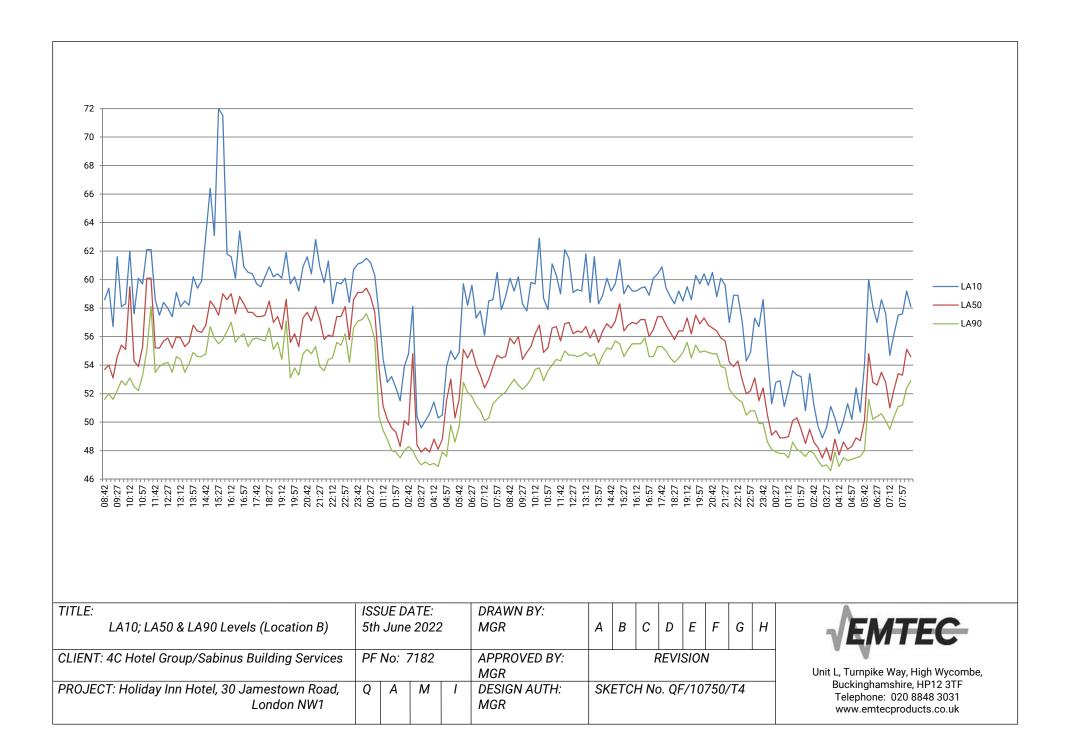




TITLE:	ISSUE DATE: DRAWN BY:												
LAeq Levels (Location B)	5th June 2022				MGR		В	С	D	Ε	F	G	Н
CLIENT: 4C Hotel Group/Sabinus Building Services	PF	No: 7	7182		APPROVED BY: MGR			F	REVI	SION	V		
PROJECT: Holiday Inn Hotel, 30 Jamestown Road, London NW1	Q	Α	М	1	DESIGN AUTH: MGR	SK	ETCI	H No	o. QF	/10	750/	′T3	



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APPENDIX 'A'

Raw Data – Noise Survey
23rd of May 2022 to 25th of May 2022

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Project: Client: Holiday Inn Hotel, 30 Jamestown Road, London NW1 7BY (Location A)

4C Hotel Group/Sabinus Building Services 23rd to 25th May 2022

Date:

01121378 Serial No:

Address	Start Time	LA _{eq}	LE	Lmax	Lmin	LA ₁	LA ₁₀	LA ₅₀	LA ₉₀	LA 99
1	08:55	52	82	69	45	61	55	50	47	46
2	09:10	52	82	72	46	62	55	49	47	46
3	09:25	51	80	74	46	54	52	51	47	46
4	09:40	51	81	63	46	57	53	51	48	47
5	09:55	49	79	63	46	55	51	49	47	46
6	10:10	51	80	66	46	55	53	50	47	46
7	10:15	50	80	60	46	54	52	51	47	46
8	10:40	53	83	67	46	62	58	49	47	47
9	10:55	50	80	59	46	53	52	51	48	47
10	11:10	52	82	64	46	60	53	51	48	47
11	11:25	50	79	62	46	55	52	49	48	47
12	11:40	50	80	68	46	54	52	49	47	47
13	11:55	51	81	78	46	55	53	51	48	47
14	12:10	51	80	68	46	54	52	50	48	47
15	12:25	51	81	72	46	57	53	50	48	47
16	12:40	53	83	73	48	63	55	51	49	48
17	12:55	51	81	60	47	55	53	52	49	48
18	13:10	50	80	62	47	54	52	50	49	48
19	13:25	50	80	65	46	57	52	49	48	47
20	13:40	51	81	61	47	55	53	51	48	48
21	13:55	51	80	64	46	59	52	49	48	47
22	14:10	52	82	74	46	62	53	49	48	47
23	14:25	52	82	73	47	58	53	51	48	48
24	14:40	50	79	56	46	54	52	49	48	47
25	14:55	51	80	66	46	57	53	50	48	47
26	15:10	55	85	74	47	63	61	51	48	48
27	15:25	57	86	69	46	65	62	49	48	47
28	15:40	55	85	63	47	61	60	52	48	47
29	15:55	54	84	64	46	61	59	52	48	47
30	16:10	50	79	65	46	55	51	49	48	47
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33	16:55	49	79	60	45	54	52	48	47	46
34	17:10	49	79	62	45	54	52	48	47	46
35	17:25	50	79	64	45	52	52	50	47	46
36	17:40	50	79	61	45	54	52	49	47	47
37	17:55	51	80	73	46	56	52	49	47	47
38	18:10	50	80	64	45	58	52	50	47	46
39	18:25	50	80	59	45	54	52	49	47	46
40	18:40	49	78	57	46	53	51	48	47	47
41	18:55	51	81	65	47	54	53	51	49	48
42	19:10	51	81	66	46	57	53	51	48	47
43	19:25	50	79	57	46	54	52	49	47	47
44	19:40	52	82	68	46	60	54	49	47	46
45	19:55	48	78	55	45	52	50	48	47	46
46	20:10	50	79	61	45	56	52	48	46	46
47	20:25	51	80	63	45	58	52	50	47	46
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49	20:55	50	79	69	45	53	52	49	46	46

F0	01.10	47	77	C1	144	F0	40	47	4.0	4.5
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51	21:25	50	80	65	45	60	52	48	46	45
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53	21:55	48	78	60	44	52	51	47	46	45
54	22:10	50	79	58	46	53	52	49	47	46
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58	23:10	49	79	55	45	53	51	49	47	46
59	23:25	51	80	58	46	54	53	51	48	47
60	23:40	51	81	56	47	54	53	51	49	48
61	23:55	51	80	59	46	55	53	50	48	47
62	00:10	51	80	57	47	55	53	50	49	48
63	00:25	51	80	58	46	55	53	50	48	47
64	00:40	50	79	62	47	53	51	49	48	48
65	00:55	50	80	59	45	54	52	50	48	46
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67	01:25	49	78	57	43	53	52	47	45	44
68	01:40	47	76	56	43	52	48	46	45	44
69	01:55	49	78	55	43	53	52	47	44	44
70	02:10	47	76	64	43	54	47	45	44	44
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77	03:55	46	76	60	42	52	49	44	43	42
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81	04:55	52	82	59	42	57	55	50	44	43
82	05:10	55	85	62	45	58	57	55	47	46
83	05:25	51	81	60	44	58	56	48	46	45
84	05:40	50	80	63	44	54	52	49	47	45
85	05:55	55	85	74	45	60	58	55	47	46
86	06:10	55	85	65	45	60	59	52	48	46
87	06:25	49	79	68	44	57	51	48	46	45
88	06:40	49	79	62	44	53	52	48	46	45
89	06:55	48	77	73	44	53	49	46	45	44
90	07:10	49	78	59	44	52	51	47	46	45
91	07:25	48	78	63	44	54	51	47	45	45
92	07:40	49	79	61	44	57	52	48	46	45
93	07:55	48	78	57	44	53	51	47	46	45
94	08:10	49	79	65	44	57	51	47	46	45
95	08:25	51	80	63	44	60	53	48	46	45
96	08:40	51	81	64	45	60	52	49	47	46
97	08:55	51	80	61	46	55	52	50	48	47
98	09:10	51	80	74	46	58	53	49	48	47
99	09:10	50	80	59	46	54	52	49	48	47
100	09.25	49	79	58	46	54	51	49	48	47
101	09:55	51	81	65	46	59	53	49	47	47
101	10:10	50	80	66	46	59	52	49	48	47
102	10:10	52	82	66	46	61	55	51	47	46
					45	52	49			
104	10:40	48	78	66	45	52	49	48	47	46

105	10.55		0.1	7.0	4.5				40	47
105	10:55	52	81	76	46	59	53	50	48	47
106	11:10	49	78	64	46	55	50	48	47	46
107	11:25	50	80	67	46	53	52	50	47	47
108	11:40	49	78	58	46 47	52	50	49	48	47 48
109	11:55	51	81	69	46	55	53	51	48	
110	12:10	51 52	80	75 60		56	53 54	50 51	48	48 48
111 112	12:25		82	68	47	58			49	
113	12:40 12:55	52 54	81 83	69 77	46 46	60 65	55 54	50 50	48 48	47 47
114	13:10	50	80	60	46	56	53	49	48	47
115	13:25	52	81	71	46	60	52	50	48	47
116	13:40	51	80	67	46	56	53	50	48	47
117	13:55	53	83	78	46	63	53	51	48	47
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128	16:40	53	82	65	47	58	54	52	49	48
129	16:55	51	80	58	48	54	52	50	49	49
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158	00:10	44	74	56	42	47	45	44	43	43
159	00:25	48	78	58	42	55	51	44	43	43

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170	03:10	44	74	52	41	50	45	43	42	42
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175	04:25	47	77	55	42	53	51	44	43	42
176	04:40	45	75	53	41	51	48	44	43	42
177	04:55	47	77	56	42	53	51	44	43	42
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180	05:40	45	75	56	42	50	47	44	43	43
181	05:55	52	82	80	42	58	53	50	46	43
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190	08:10	48	78	69	44	54	50	47	46	45
191	08:25	50	80	71	46	54	52	49	47	47
192	08:40	49	78	65	46	54	50	48	47	46

EMTEC PRODUCTS LTD.

Project: Client: Holiday Inn Hotel, 30 Jamestown Road, London NW1 7BY (Location B)

4C Hotel Group/Sabinus Building Services 23rd to 25th May 2022

Date:

01232570 Serial No.:

Address	Start Time	LA _{eq}	LE	Lmax	Lmin	LA ₁	LA ₁₀	LA ₅₀	LA ₉₀	LA 99
1	08:42	57	86	81	50	61	59	54	52	51
2	08:57	58	87	80	50	62	59	54	52	52
3	09:12	56	86	80	50	60	57	53	52	51
4	09:27	73	103	112	25	64	62	55	52	51
5	09:42	57	87	80	51	59	58	55	53	53
6	09:57	56	86	70	50	60	58	55	53	52
7	10:12	62	91	88	50	63	62	60	53	53
8	10:27	60	90	89	51	60	58	54	53	52
9	10:42	56	86	77	51	61	60	54	52	52
10	10:57	58	87	82	51	62	60	55	53	53
11	11:12	60	90	80	52	63	62	60	55	54
12	11:27	61	90	74	55	63	62	60	58	58
13	11:42	57	86	78	52	60	59	55	54	53
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16	12:27	56	86	70	52	59	58	56	54	54
17	12:42	56	85	69	52	58	57	55	54	53
18	12:57	57	87	78	53	61	59	56	55	54
19	13:12	57	86	70	53	59	58	56	54	54
20	13:27	57	87	75	52	60	59	55	54	53
21	13:42	56	86	67	52	59	58	56	54	54
22	13:57	58	88	73	53	62	60	57	55	55
23	14:12	58	87	77	52	61	59	56	55	54
24	14:27	58	88	74	53	62	60	56	55	54
25	14:42	63	93	82	53	70	63	57	55	54
26	14:57	64	93	84	54	71	66	59	57	56
27	15:12	64	93	75	53	73	63	58	56	55
28	15:27	66	96	77	53	73	72	58	56	55
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31	16:12	60	89	70	54	63	62	59	57	56
32	16:27	58	88	68	53	61	60	58	56	55
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34	16:57	59	89	72	53	62	61	58	56	56
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49	20:42	59	89	71	52	63	62	58	55	55

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52	21:12	59	88	78	51	62	61	57	54	53
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55	22:12	57	86	67	52	59	58	56	55	54
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57 58	22:42 22:57	58 59	88 88	70	53	60 61	60 60	57 58	56	56
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67	01:12	52	82	65	48	56	54	51	49	49
	01:12	54			47	54			49	48
68	01:42		83	80	46	54	53	50		
69 70	01:42	51 50	81	68 64	46	53	53 52	50 49	48 48	48 48
71	02:12	50	80 79	68	46	53	52	49	48	47
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72 73		53	81 83	69	47	57	54 55	50	48	48 48
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77	03:42	49	79 79	64	46	51	50	48	47	47
78 79	03:57	49 49	79	61 59	46	52 52	51 51	48 49	47 47	47 47
	04:12		78	61	46 45	51			47	47
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82	04.42	52	81	63	46	54	54	52	48	47
83	05:12	53	83	62	48	56	55	53	50	49
84	05:12	52	81	63	48	55	54	50	49	48
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87	06:12	56	86	79	49	59	58	55	52	51
88	06:27	57	86	72	49	61	60	55	52	51
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93	07:42	56	86	78	49	61	59	54	51	51
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97	08:42	60	89	73	50	69	60	56	53	52
98	08:57	58	87	81	51	60	59	56	53	53
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100	09:42	56	85	67	51	59	58	55	53	52
101	09:57	57	87	70	51	61	60	55	53	53
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107	11:12	59	88	77	52	63	61	57	54	54
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111	12:12	60	89	83	53	64	62	57	55	54
112	12:27	57	87	70	53	61	59	56	55	54
113	12:42	58	88	79	53	61	59	56	55	54
114	12:57	59	88	82	53	61	59	56	55	54
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120	14:27	58	88	75	53	62	60	57	55	55
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140	19:27	57	86	67	52	60	59	56	55	54
141	19:42	58	88	73	53	61	60	58	55	55
142	19:57	58 59	88 88	71 74	53 53	61 62	60 60	57 57	55 55	55 55
143 144	20:12		87	75	52	61			55	55
144	20:27 20:42	58 59	88	74	52	63	60 61	57 57	55	54
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158	23:57	52	82	71	47	57	55	51	49	48
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162	00:57	49	79	62	46	52	51	49	48	48
163	01:12	52	82	73	46	53	52	49	48	47
164	01:27	52	81	66	47	55	54	50	49	48
165	01:42	51	81	66	47	54	53	50	48	48
166	01:57	51	81	64	46	55	53	50	48	48
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169	02:42	49	79	57	47	53	51	49	48	48
170	02:57	49	78	64	46	51	50	48	47	47
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173	03:42	49	78	57	46	52	51	47	47	47
174	03:57	51	81	74	47	51	50	49	48	48
175	04:12	48	78	59	46	50	49	48	47	47
176	04:27	49	79	67	47	51	50	49	48	47
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178	04:57	49	79	66	46	52	50	48	47	47
179	05:12	50	80	65	46	54	52	49	48	47
180	05:27	49	79	60	46	52	51	49	48	48
181	05:42	53	83	74	47	56	54	50	48	48
182	05:57	57	86	68	48	61	60	55	52	51
183	06:12	56	85	76	48	60	58	53	50	50
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187	07:12	52	82	67	48	56	55	51	50	49
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189	07:42	55	84	68	49	59	58	53	51	51
190	07:57	55	85	69	50	59	58	53	51	51
191	08:12	56	86	69	49	60	59	55	52	52
192	08:27	56	86	73	51	59	58	55	53	53

QF10750/PF7182/PF7276/RP1A EMTEC PRODUCTS LTD.

APPENDIX 'B'

Photos and Drawing

Microphone Location A Adjacent Office Building

Photo A - Microphone on balcony of Room 505 on East side of hotel looking towards Jamestown Road

Fifth Floor bedrooms of Hotel Microphone Location A

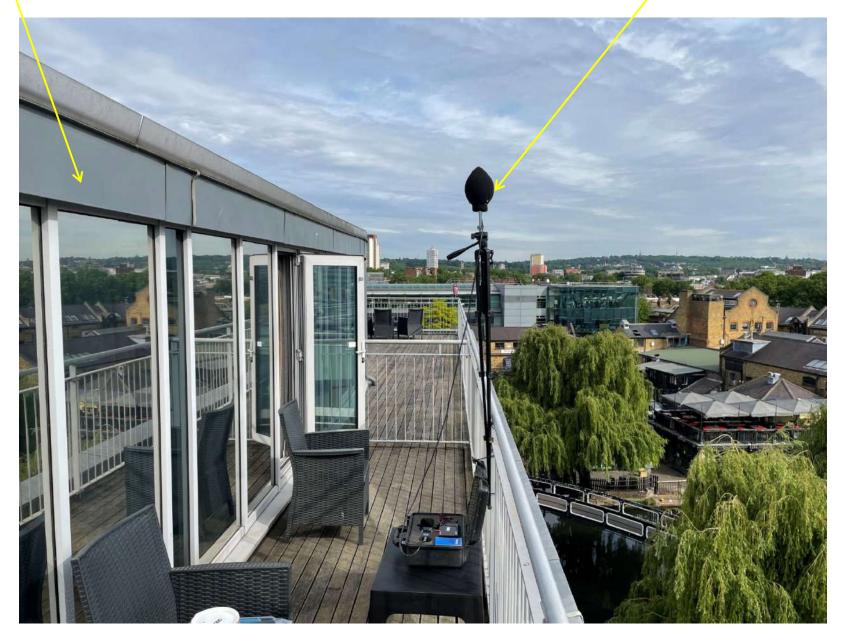


Photo B - Microphone on balcony of Room 505 on East side of hotel looking towards Camden Lock



Photo C - Office building on East side of the Holiday Inn Hotel



Photo D - Office building on the East side of Holiday Inn Hotel with Camden Lock behind

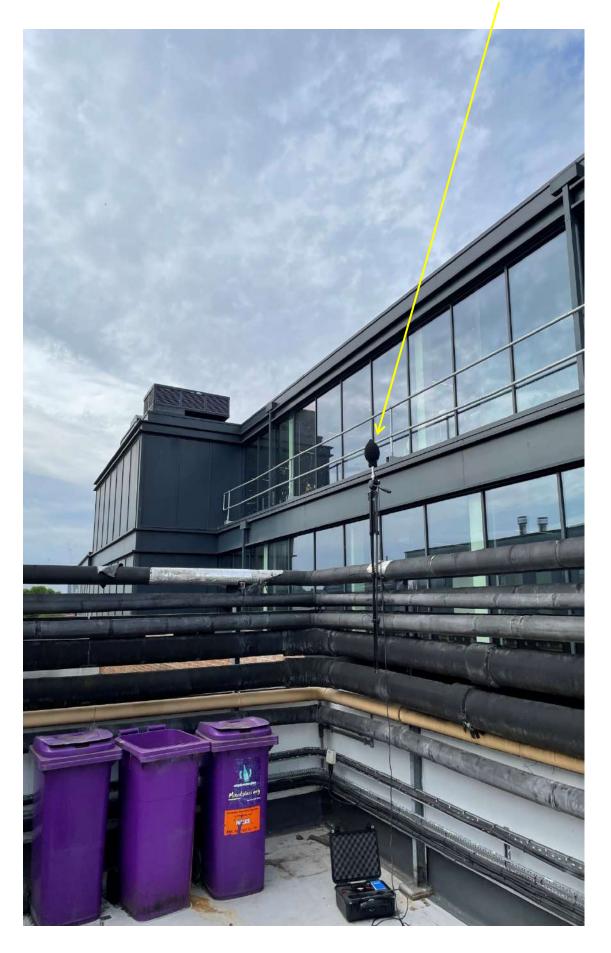


Photo E - Microphone on West side of hotel with adjacent office building behind

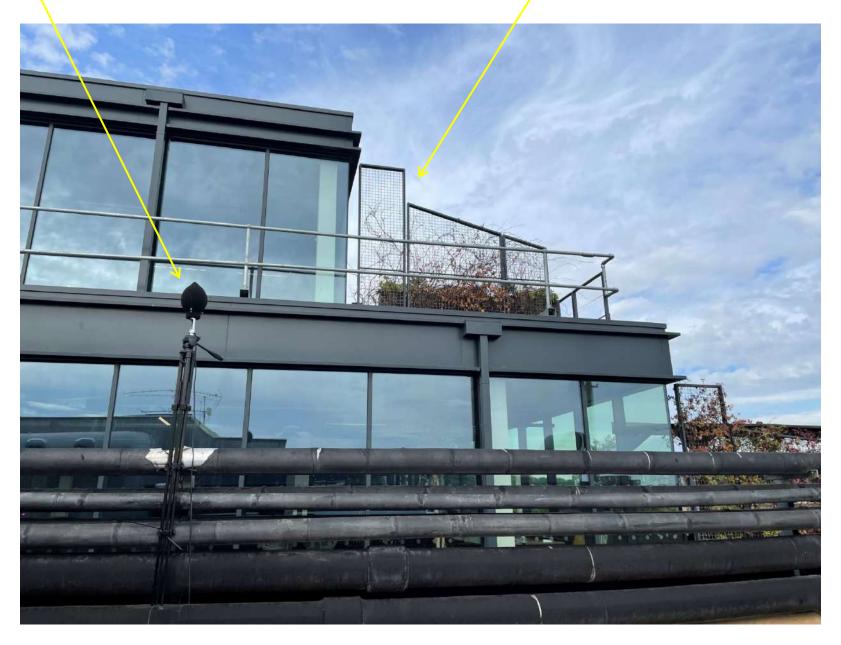


Photo F - Microphone on West side of Hotel with adjacent office building and terrace behind

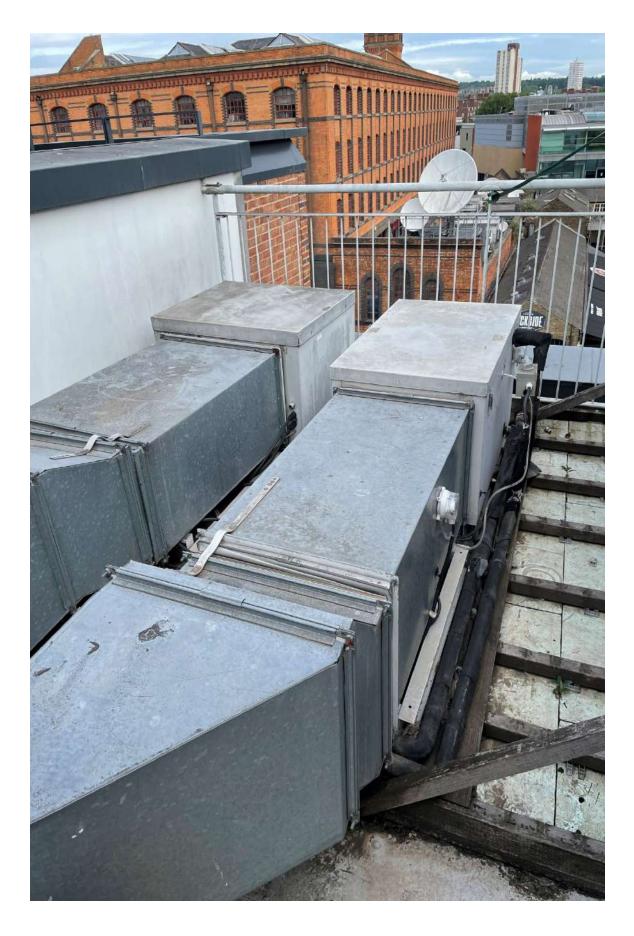


Photo G - Existing Extract ventilation units at the rear on the West side of the Hotel roof



Photo H - Existing chiller unit inside the existing fifth floor plant compound



Photo I - Air cooled condenser at high level inside the existing fifth floor plant compound



Photo J - Existing boiler flue terminals above the boiler house inside the fifth floor plant compound



Photo K - Existing terminals above the boiler house inside the fifth floor plant compound

Existing Extract Fans
Microphone Location B (Photo G)

Office Building to the West

(Photos E & F)

Existing Chiller and High Level Condenser in Fifth Floor Compound (Photos H Boiler House in Plant Compound (Photos J & K)

Microphone Location A

Office Building to the East (Photos C & D)

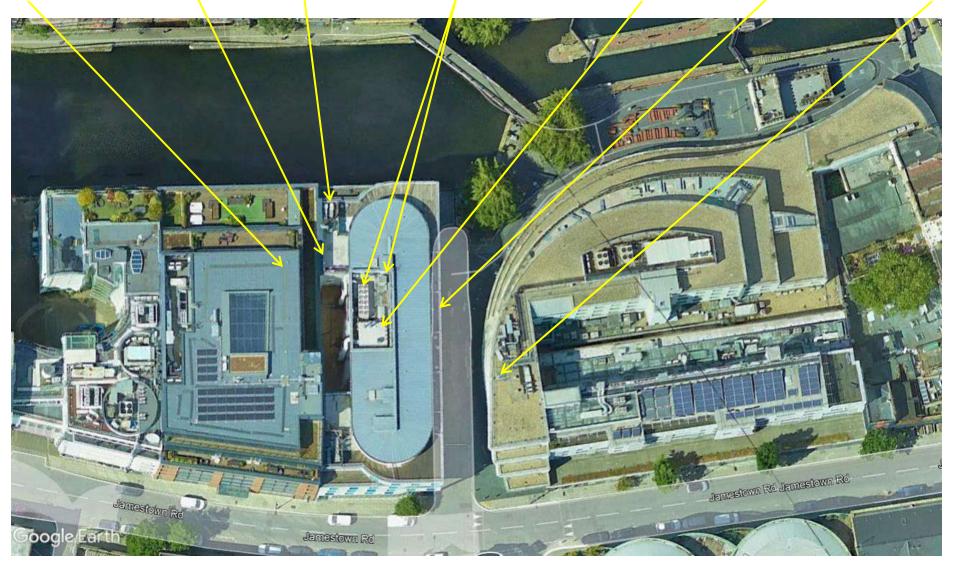
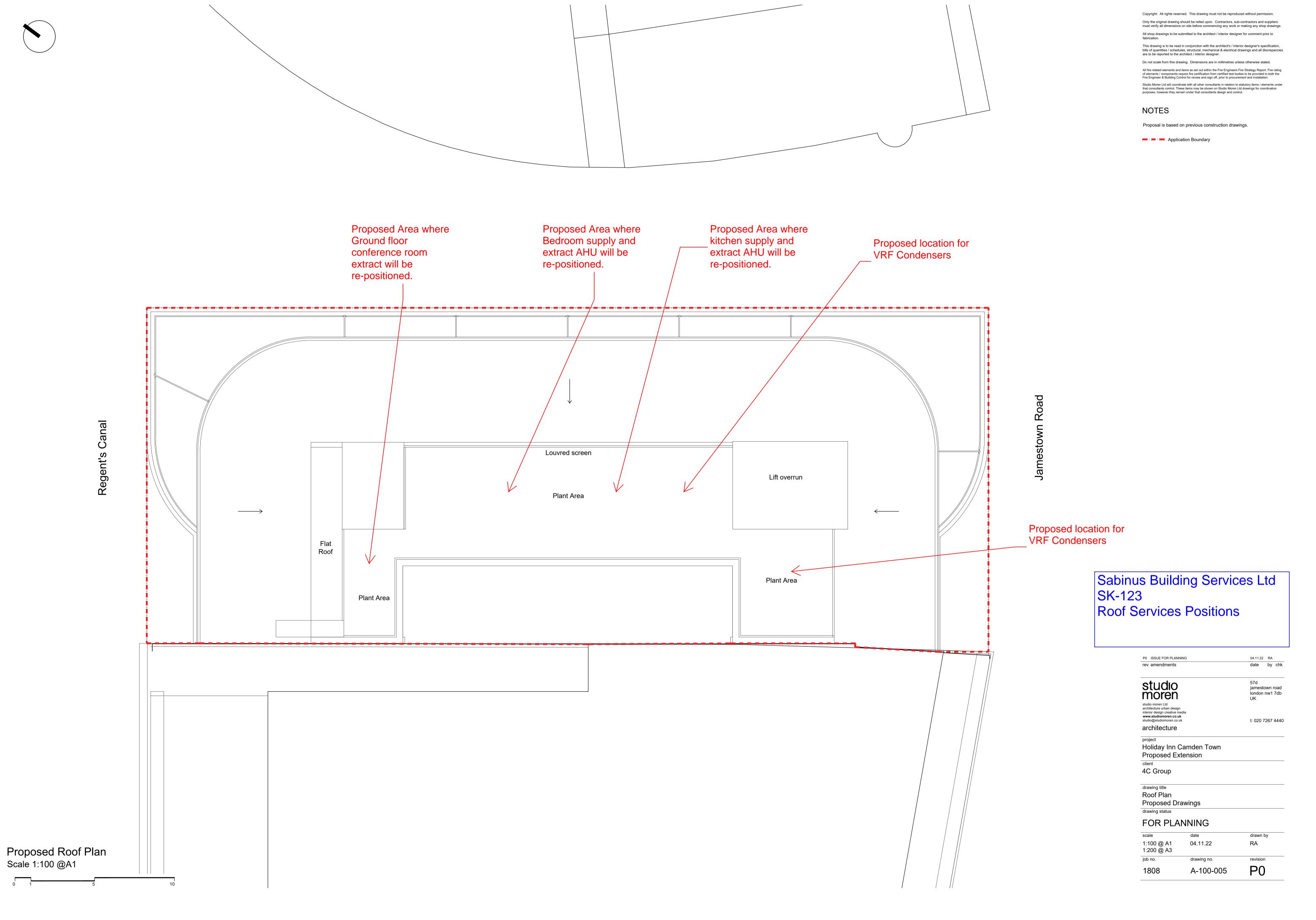
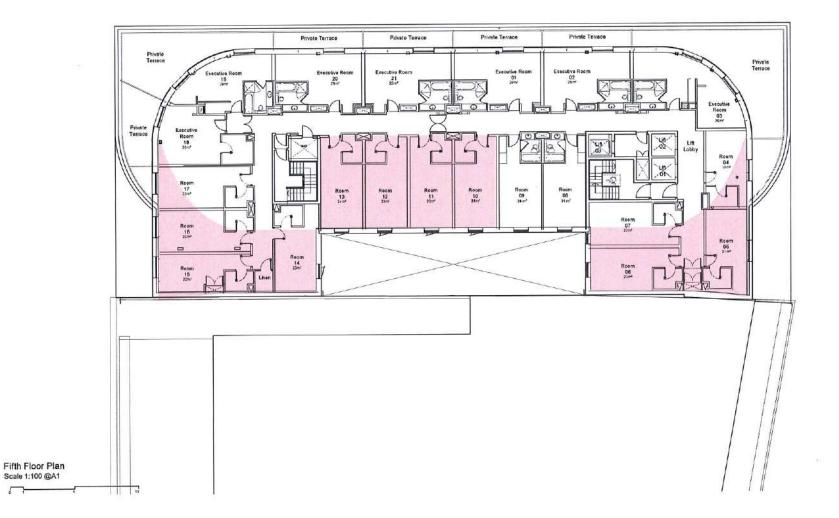


Photo L - Aerial view of Holiday Inn Hotel with microphone locations, adjacent buildings and existing fifth floor plant compound







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