RESULTS OF A DOUBLE 24-HOUR NOISE LEVEL SURVEY CARRIED OUT AT THE FRONT AND AT THE REAR OF THE COMMERCIAL PREMISES LOCATED AT 22 WARREN STREET AND 52 TO 56 FITZROY STREET, LONDON W1 AND A REPORT ON THE NOISE IMPACT OF THE PROPOSED NEW EXTERNAL PLANT

Test Engineer : M G Roberts

Report Author : M G Roberts

Authorised for
Release by : I J Marchant

Client	:	Peter Deer Associates
Project	:	22 Warren Street & 52 to 56 Fitzroy Street, London W1
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Emtec Products Ltd
T: +44(0)20 8848 3031
E: sales@emtecproducts.co.uk
W: emtecproducts.co.uk

Unit L, Turnpike Way
High Wycombe
Buckinghamshire
HP12 3TF

Registered in England No. 3164658 VAT Reg. No. GB675017042

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1.0. INTRODUCTION

This report details the results of two 24-hour noise surveys carried out at the front and at the rear of the office and retail building located at 22 Warren Street and 52 to 56 Fitzroy Street, London W1. The two surveys were carried out concurrently, over the same 24-hour period.

The locations of the microphones were as follows,

- Location A - 3rd floor window at front of building.
- Location B - 3rd floor fire escape at rear of building.

The objectives of the survey were as follows:

- To assess the proposal to install new air cooled condensers on the roof of the 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:

2.0. SITE DESCRIPTION

The building located at 22 Warren Street and 52 to 56 Fitzroy Street is a four storey office and retail collection of buildings with office space on the upper floors and retail space at ground floor level. The buildings can be seen on the attached Photos A, B, C and D. The buildings front onto Warren Street, Grafton Mews and Fitzroy Street.

The buildings face onto an office building off Grafton Mews to the rear and residential properties on either side of Fitzroy Street.

An aerial view of the buildings can be seen on the attached Photo G.

3.0. TEST INSTRUMENTATION

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 01232569 & 01121378

Statistical Analysis Modules: Built in module capable of computing the percentile levels LA_1, LA_{10}, LA_{50}, LA_{90} and LA_{99} 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 24-hour period from 12:18 pm on Tuesday the 23rd of April 2024 to 12:32 pm on Wednesday the 24th of April 2024.

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: -

LA_1 - The Sound Pressure Level exceeded for 1% of the measurement period.

LA_{10} - The Sound Pressure Level exceeded for 10% of the measurement period.

LA_{50} - The Sound Pressure Level exceeded for 50% of the measurement period.

LA_{90} - The Sound Pressure Level exceeded for 90% of the measurement period. LA_{90} 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).

LA_{99} - 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 fixed to booms that were positioned outside of a third floor window at the front of the building and at the top of the fire escape at the rear of the building.

The microphones were oriented vertically and were approximately 1.5 metres from the front façade of the building and 2 metres above the top platform of the rear fire escape stairs. The locations of the microphones can be seen on the attached Photos A, B, D,E and G.

Location A - 3rd floor window at front of building.

Location B - 3rd floor fire escape at rear of building.

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: -	Overcast	Weather night time: -	Overcast
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/11378/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/11378/T2 and -/T4 at the back of this report.

5.1. Summary of Results

The table QF/11378/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/11378/D1 – Summary of Maximum and Minimum Noise Levels

	Location	LA_{eq}	LA_1	LA_{10}	LA_{50}	LA_{90}	LA_{99}
Minimum	A	55dBA	60dBA	59dBA	53dBA	47dBA	46dBA
	B	47dBA	49dBA	48dBA	47dBA	46dBA	45dBA
Maximum	A	67dBA	74dBA	68dBA	61dBA	59dBA	58dBA
	B	55dBA	67dBA	58dBA	52dBA	51dBA	50dBA

The table QF/11378/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/11378/D2 – Minimum LA_{90} Noise Levels – Daytime/Evening and Night time

	Location	Minimum LA_{90}
Daytime/Evening (7am to 11pm)	A	55dBA
	B	48dBA
Night Time (11pm to 7am)	A	47dBA
	B	46dBA

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

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}

*10dB 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_{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. Determination of noise sensitive property design criteria

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 LA_{90} background noise level at 1 metre from the nearest noise sensitive window.

The lowest recorded LA_{90} background noise levels measured during the 24 hour survey period are given in Table QF/11378/D2 above.

Applying the above criteria gives limiting rating levels as listed in table QF/11378/D3 below:

Table QF/11378/D3 – Proposed Design Rating Levels (LA_{eq})

Existing Noise sensitive receptor	Design Period	Location	Lowest measured background level	**Proposed rating level**	Proposed Local Authority criteria
Dwellings	Day	A	55dBA	**45dBA**	Green
		B	48dBA	**38dBA**	Green
	Night	A	47dBA	**37dBA**	Green
		B	46dBA	**36dBA**	Green

5.4. Determination of commercial design criteria

The use of the commercial premises surrounding the site consists mostly of offices. It is therefore proposed that the recommendations given in BS8233:2014 and that Table 2 of that standard 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/11378/D4:

Table QF/11378/D4 – recommended design rating levels $L_{Ar,T}$

Type of premises	**Location**	**$L_{Ar,T}$ (7am - 11pm)**	**$L_{Ar,T}$ (11pm - 7am)**
Noise sensitive	A	45dBA	37dBA
	B	38dBA	36dBA
Commercial	A & B	-	55dBA

6.0. DISCUSSION OF RESULTS

It is proposed to install four number Mitsubishi PUMY-P200YKM3 air cooled condensers in a screened section of the roof structure of 52 Fitzroy Street as indicated on the attached Peter Deer sketch drawings No 4909-SK240425dc1.

The Table QF/11378/D5 below lists the sound pressure level spectrum of the condenser along with the natural and required attenuation to ensure that the noise level at 1 metre from the windows of the residential property on the top floor of No 50 Fitzroy Street will be below the limiting LA_{eq} noise level listed in the Table QF/11378/D4 above for 24 hour operation of the plant.

Table QF/11378/D5 – Noise Level of condensers at full duty and the natural and required attenuation to the nearest residential windows of 52 Fitzroy Street

Noise Level/ Attenuation	Sound Pressure Level (dB ref 2 x 10^{-5} N/m^2) 63	125	250	500	1k	2k	4k	8k	dBA
Mitsubishi PUMY-P200YKM3 - SPL at 1 metre free field (Heating)	63	61	61	58	57	52	49	41	61
4 units	+6	+6	+6	+6	+6	+6	+6	+6	
Reverberation	+3	+3	+3	+3	+3	+3	+3	+3	
Distance correction to nearest residential window back/front (8m) at 10 log A_7/A_1	-13	-13	-13	-13	-13	-13	-13	-13	
400mm Barrier effect - back/front edge	-8	-10	-12	-14	-16	-18	-20	-20	
Emtec LAAC15-105 Acoustic louvres	-4	-4	-5	-7	-14	-16	-15	-12	
SPL at 1m from nearest residential openable window	47	43	40	33	23	14	10	5	35

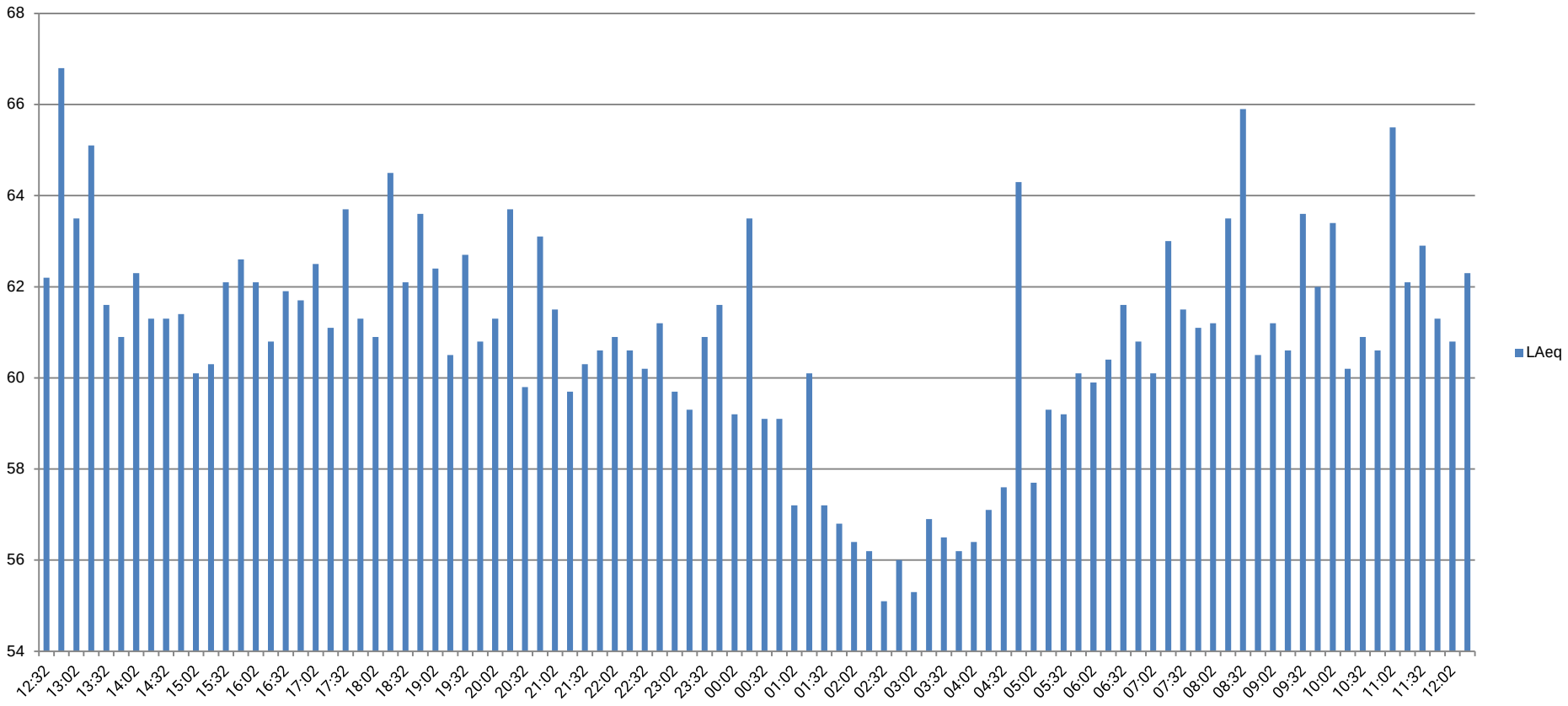
Based upon the above calculation the condensers will create a noise level of 35dBA at 1 metre from the front or the rear windows of the top floor flat in 50 Fitzroy Street if the units are enclosed in an Emtec LAAC15-105 acoustic louvred screen which is at least 500mm higher than the top of the condensers.

The attached sketch No QF/11378/GA1 shows the layout of the necessary screening and the required Rw:30dB acoustic performance of the structure below the units.

In order to ensure that structural borne noise is not transferred to the adjacent residential properties the condensers should be mounted onto anti-vibration mounts having a minimum static deflection of 6mm.

If the above recommendations are followed then the installation of the condenser will meet the planning requirements of the local authority and should not evoke any justifiable complaints under the guidelines of either BS4142:2014 or BS8233:2014.

Emtec Products Ltd
23rd May 2024



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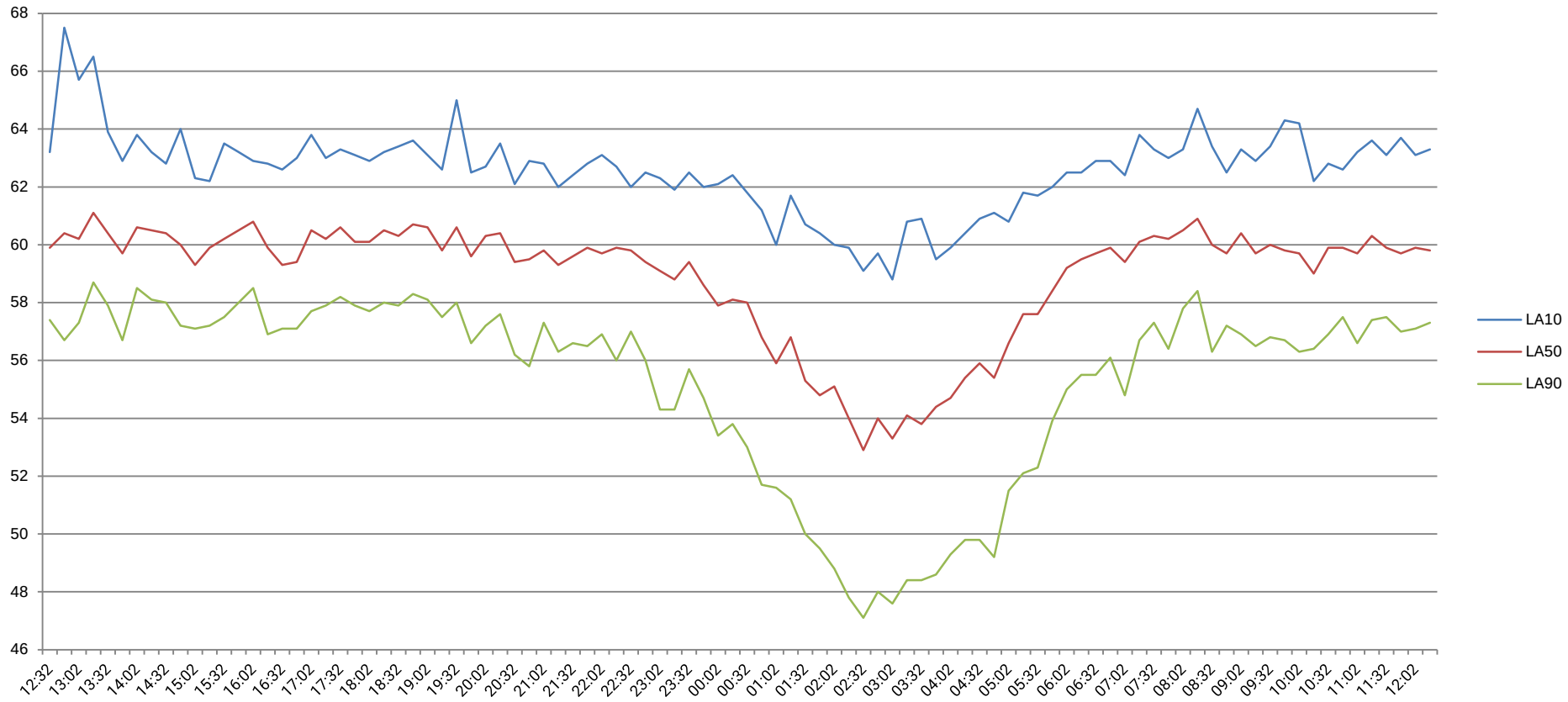
CLIENT: Peter Deer Associates	PF No: 7579				APPROVED BY: MGR	REVISION							
PROJECT:- 22 Warren Street & 52 to 56 Fitzroy Street, London W1	Q	A	M	I	DESIGN AUTH: MGR	SKETCH No. QF/11378/T1							

EMTEC
Unit L, Turnpike Way, High Wycombe,
Buckinghamshire, HP12 3TF
Telephone: 020 8848 3031
www.emtecproducts.co.uk



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CLIENT: Peter Deer Associates	PF No: 7579				APPROVED BY: MGR	REVISION							
PROJECT: 22 Warren Street & 52 to 56 Fitzroy Street, London W1	Q	A	M	I	DESIGN AUTH: MGR	SKETCH No. QF/11378/T2							

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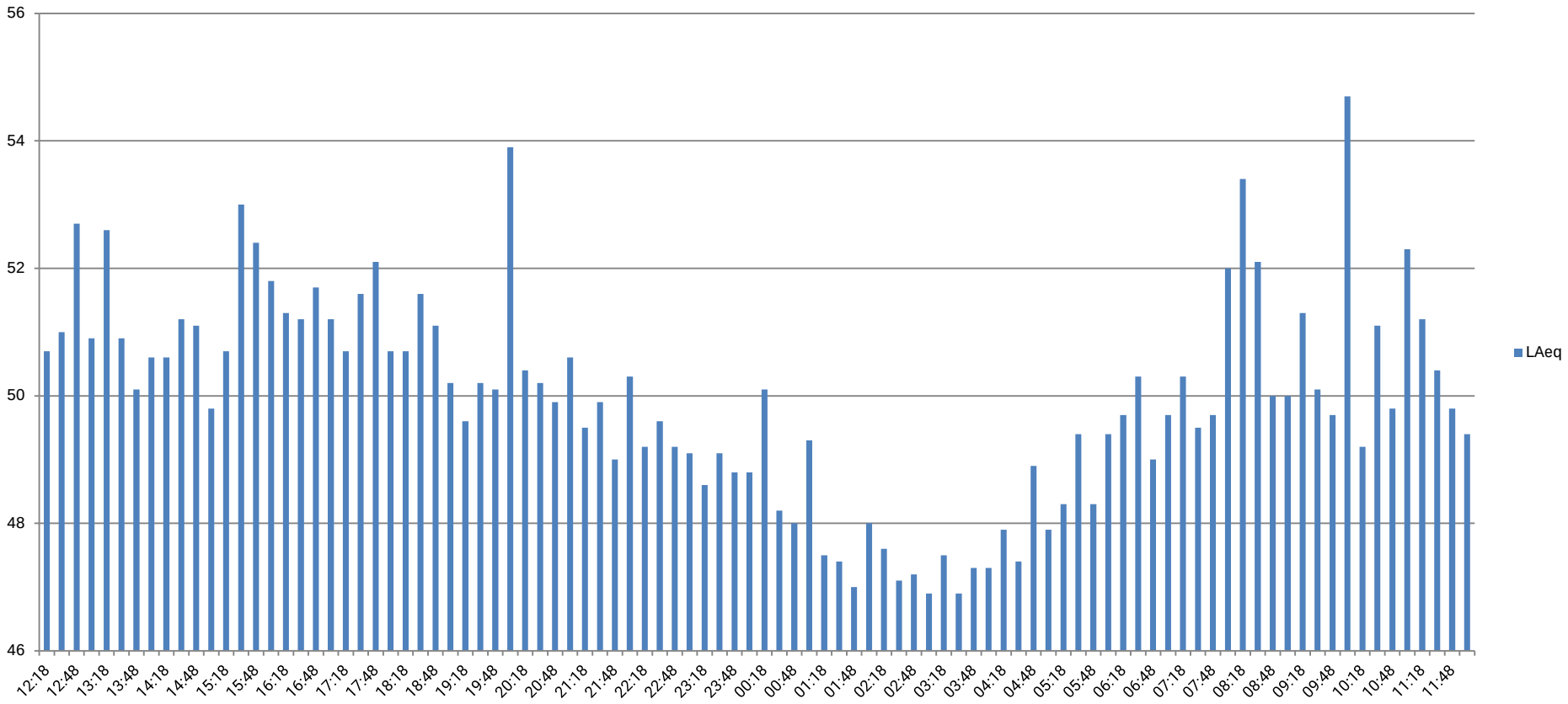
Unit L, Turnpike Way, High Wycombe,
Buckinghamshire, HP12 3TF
Telephone: 020 8848 3031
www.emtecproducts.co.uk



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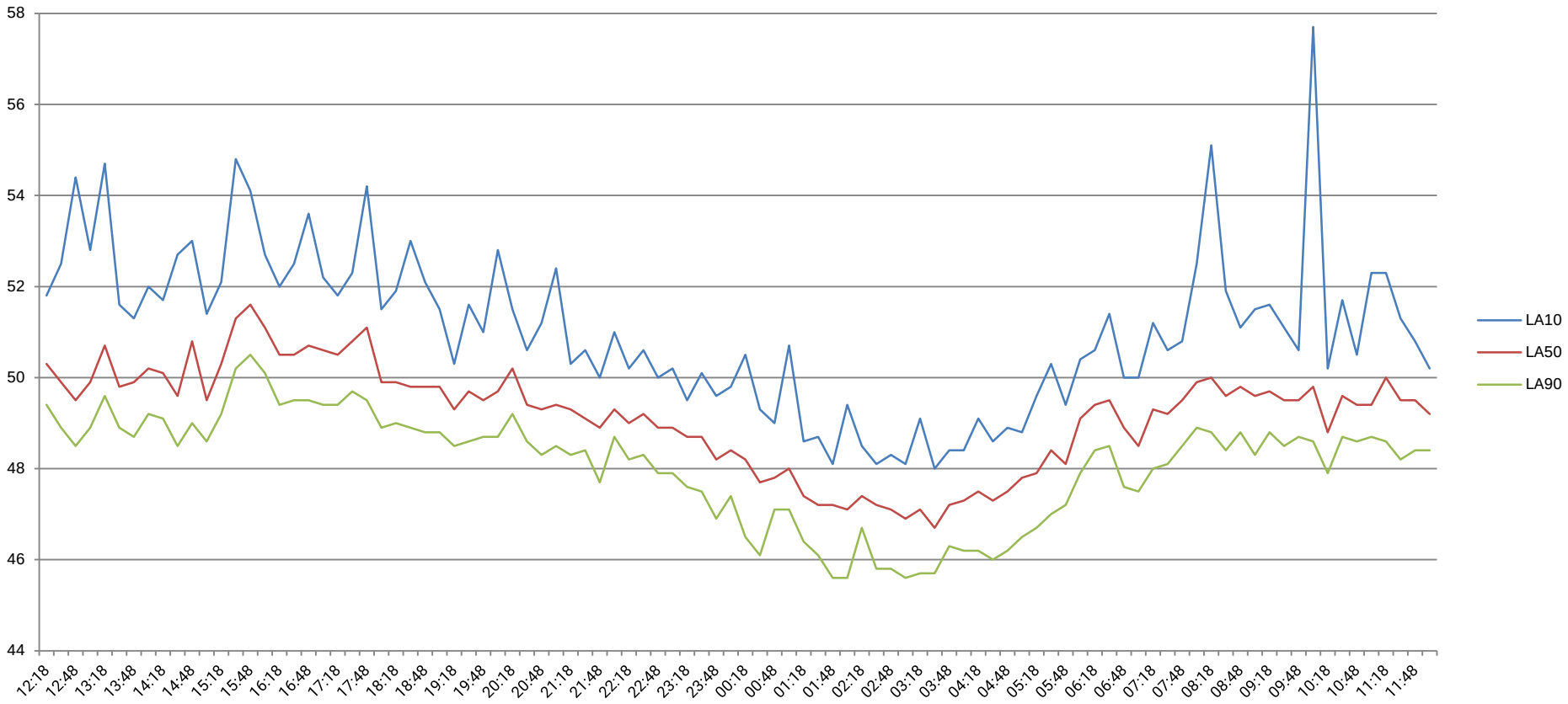
CLIENT: Peter Deer Associates				PF No: 7579	APPROVED BY: MGR	REVISION							
PROJECT: 22 Warren Street & 52 to 56 Fitzroy Street, London W1	Q	A	M	I	DESIGN AUTH: MGR	SKETCH No. QF/11378/T3							

EMTEC
Unit L, Turnpike Way, High Wycombe,
Buckinghamshire, HP12 3TF
Telephone: 020 8848 3031
www.emtecproducts.co.uk



TITLE: LA10; LA50 & LA90 Levels - Location B - Rear	ISSUE DATE: 2nd May 2024				DRAWN BY: MGR	A	B	C	D	E	F	G	H
CLIENT: Peter Deer Associates	PF No: 7579				APPROVED BY: MGR	REVISION							
PROJECT: 22 Warren Street & 52 to 56 Fitzroy Street, London W1	Q	A	M	I	DESIGN AUTH: MGR	SKETCH No. QF/11378/T4							

EMTEC
Unit L, Turnpike Way, High Wycombe,
Buckinghamshire, HP12 3TF
Telephone: 020 8848 3031
www.emtecproducts.co.uk

APPENDIX ‘A’

Raw Data – Noise Survey

23rd of April 2024 to 24th of April 2024

Project: 22 Warren Street & 52 to 56 Fitzroy Street - Location A – 3rd Floor Front of Building
Client: Peter Deer Associates
Date: 23rd to 24th April 2024
Serial No: 01232569

Address	Start Time	LA_{eq}	LE	Lmax	Lmin	LA_{1}	LA_{10}	LA_{50}	LA_{90}	LA_{99}
1	12:32	62	92	79	53	67	63	60	57	57
2	12:47	67	96	86	53	74	68	60	57	56
3	13:02	64	93	80	55	70	66	60	57	57
4	13:17	65	95	87	55	70	67	61	59	58
5	13:32	62	91	74	53	65	64	60	58	57
6	13:47	61	91	72	53	64	63	60	57	56
7	14:02	62	92	76	55	65	64	61	59	58
8	14:17	61	91	74	53	64	63	61	58	57
9	14:32	61	91	78	55	64	63	60	58	57
10	14:47	61	91	78	55	65	64	60	57	57
11	15:02	60	90	71	54	63	62	59	57	56
12	15:17	60	90	73	54	63	62	60	57	57
13	15:32	62	92	81	53	65	64	60	58	57
14	15:47	63	92	83	55	65	63	61	58	57
15	16:02	62	92	82	55	64	63	61	59	58
16	16:17	61	90	75	54	64	63	60	57	56
17	16:32	62	92	81	54	64	63	59	57	57
18	16:47	62	91	82	53	65	63	59	57	56
19	17:02	63	92	82	54	66	64	61	58	57
20	17:17	61	91	82	53	64	63	60	58	57
21	17:32	64	93	91	55	65	63	61	58	58
22	17:47	61	91	75	54	65	63	60	58	57
23	18:02	61	91	74	55	64	63	60	58	57
24	18:17	65	94	90	55	65	63	61	58	57
25	18:32	62	92	81	54	66	63	60	58	57
26	18:47	64	93	88	54	65	64	61	58	58
27	19:02	62	92	89	54	64	63	61	58	57
28	19:17	61	90	76	54	64	63	60	58	57
29	19:32	63	92	81	55	67	65	61	58	57
30	19:47	61	90	78	54	64	63	60	57	56
31	20:02	61	91	79	52	64	63	60	57	56
32	20:17	64	93	87	52	66	64	60	58	57
33	20:32	60	89	67	51	63	62	59	56	55
34	20:47	63	93	85	50	65	63	60	56	55
35	21:02	62	91	85	53	64	63	60	57	57
36	21:17	60	89	73	51	63	62	59	56	55
37	21:32	60	90	77	51	63	62	60	57	56
38	21:47	61	90	82	51	64	63	60	57	56
39	22:02	61	91	75	52	64	63	60	57	56
40	22:17	61	90	74	52	64	63	60	56	55
41	22:32	60	90	70	54	63	62	60	57	56
42	22:47	61	91	81	52	64	63	59	56	55
43	23:02	60	89	70	48	64	62	59	54	53
44	23:17	59	89	68	48	63	62	59	54	53
45	23:32	61	91	85	49	63	63	59	56	54
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47	00:02	59	89	71	48	64	62	58	53	52
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80	08:17	64	93	85	54	67	65	61	58	58
81	08:32	66	96	93	53	65	63	60	56	56
82	08:47	61	90	74	54	64	63	60	57	56
83	09:02	61	91	76	54	65	63	60	57	56
84	09:17	61	90	80	53	64	63	60	57	56
85	09:32	64	93	91	52	65	63	60	57	56
86	09:47	62	92	88	54	65	64	60	57	56
87	10:02	63	93	90	53	66	64	60	56	56
88	10:17	60	90	78	53	63	62	59	56	56
89	10:32	61	91	80	53	64	63	60	57	56
90	10:47	61	90	77	54	64	63	60	58	57
91	11:02	66	95	89	52	65	63	60	57	56
92	11:17	62	92	85	53	65	64	60	57	57
93	11:32	63	93	88	54	65	63	60	58	57
94	11:47	61	91	79	53	65	64	60	57	56
95	12:02	61	90	77	54	65	63	60	57	56
96	12:17	62	92	82	54	66	63	60	57	57

Project: 22 Warren Street & 52 to 56 Fitzroy Street - Location B - 3rd Floor rear of building
Client: Peter Deer Associates
Date: 23rd to 24th April 2024
Serial No.: 01121378

Address	Start Time	LA_{eq}	LE	Lmax	Lmin	LA_{1}	LA_{10}	LA_{50}	LA_{90}	LA_{99}
1	12:18	51	80	64	48	56	52	50	49	49
2	12:33	51	81	74	48	56	53	50	49	48
3	12:48	53	82	68	47	64	54	50	49	48
4	13:03	51	81	62	48	57	53	50	49	48
5	13:18	53	82	65	48	61	55	51	50	49
6	13:33	51	81	63	47	59	52	50	49	48
7	13:48	50	80	58	47	53	51	50	49	48
8	14:03	51	80	57	48	55	52	50	49	49
9	14:18	51	80	63	48	55	52	50	49	49
10	14:33	51	81	67	47	60	53	50	49	48
11	14:48	51	81	58	48	55	53	51	49	48
12	15:03	50	79	54	47	53	51	50	49	48
13	15:18	51	80	64	48	55	52	50	49	48
14	15:33	53	83	68	49	61	55	51	50	50
15	15:48	52	82	65	49	59	54	52	51	50
16	16:03	52	81	66	48	58	53	51	50	49
17	16:18	51	81	64	47	58	52	51	49	48
18	16:33	51	81	64	48	58	53	51	50	49
19	16:48	52	81	65	48	58	54	51	50	49
20	17:03	51	81	65	48	57	52	51	49	49
21	17:18	51	80	59	48	54	52	51	49	48
22	17:33	52	81	70	48	57	52	51	50	49
23	17:48	52	82	63	48	59	54	51	50	49
24	18:03	51	80	63	48	58	52	50	49	48
25	18:18	51	80	68	48	56	52	50	49	48
26	18:33	52	81	65	48	61	53	50	49	48
27	18:48	51	81	67	47	60	52	50	49	48
28	19:03	50	80	60	48	55	52	50	49	48
29	19:18	50	79	60	47	55	50	49	49	48
30	19:33	50	80	61	47	55	52	50	49	48
31	19:48	50	80	61	47	56	51	50	49	48
32	20:03	54	84	73	47	67	53	50	49	48
33	20:18	50	80	61	48	54	52	50	49	48
34	20:33	50	80	64	47	59	51	49	49	48
35	20:48	50	80	61	47	56	51	49	48	48
36	21:03	51	80	62	47	58	52	49	49	48
37	21:18	50	79	61	47	52	50	49	48	48
38	21:33	50	80	63	47	57	51	49	48	48
39	21:48	49	79	58	46	52	50	49	48	47
40	22:03	50	80	63	48	58	51	49	49	48
41	22:18	49	79	59	47	53	50	49	48	48
42	22:33	50	79	61	47	54	51	49	48	48
43	22:48	49	79	61	47	55	50	49	48	47
44	23:03	49	79	56	46	52	50	49	48	47
45	23:18	49	78	55	46	50	50	49	48	47
46	23:33	49	79	62	46	54	50	49	48	47
47	23:48	49	78	62	45	54	50	48	47	46
48	00:03	49	78	58	45	54	50	48	47	47
49	00:18	50	80	71	45	60	51	48	47	46

50	00:33	48	78	62	45	54	49	48	46	46
51	00:48	48	78	52	46	50	49	48	47	47
52	01:03	49	79	62	46	57	51	48	47	47
53	01:18	48	77	55	45	51	49	47	46	46
54	01:33	47	77	52	44	50	49	47	46	45
55	01:48	47	77	54	44	49	48	47	46	45
56	02:03	48	78	60	44	55	49	47	46	45
57	02:18	48	77	51	46	50	49	47	47	46
58	02:33	47	77	53	44	49	48	47	46	45
59	02:48	47	77	56	44	50	48	47	46	45
60	03:03	47	77	50	44	49	48	47	46	45
61	03:18	48	77	57	45	51	49	47	46	45
62	03:33	47	77	51	45	50	48	47	46	45
63	03:48	47	77	54	45	50	48	47	46	46
64	04:03	47	77	53	45	50	48	47	46	46
65	04:18	48	78	65	45	51	49	48	46	46
66	04:33	47	77	51	45	50	49	47	46	46
67	04:48	49	79	65	45	60	49	48	46	46
68	05:03	48	78	57	45	51	49	48	47	46
69	05:18	48	78	58	45	53	50	48	47	46
70	05:33	49	79	66	45	57	50	48	47	46
71	05:48	48	78	55	46	51	49	48	47	47
72	06:03	49	79	64	46	53	50	49	48	46
73	06:18	50	79	61	46	54	51	49	48	47
74	06:33	50	80	68	47	56	51	50	49	48
75	06:48	49	79	57	46	52	50	49	48	47
76	07:03	50	79	68	46	55	50	49	48	47
77	07:18	50	80	68	46	58	51	49	48	47
78	07:33	50	79	60	47	54	51	49	48	47
79	07:48	50	79	59	46	53	51	50	49	47
80	08:03	52	82	70	48	63	53	50	49	48
81	08:18	53	83	72	47	64	55	50	49	48
82	08:33	52	82	71	47	64	52	50	48	48
83	08:48	50	80	58	47	54	51	50	49	48
84	09:03	50	80	60	47	54	52	50	48	48
85	09:18	51	81	68	47	61	52	50	49	48
86	09:33	50	80	63	47	57	51	50	49	48
87	09:48	50	79	58	48	53	51	50	49	48
88	10:03	55	84	70	47	65	58	50	49	48
89	10:18	49	79	62	47	53	50	49	48	47
90	10:33	51	81	68	47	60	52	50	49	48
91	10:48	50	79	64	48	56	51	49	49	48
92	11:03	52	82	69	47	63	52	49	49	48
93	11:18	51	81	69	47	60	52	50	49	48
94	11:33	50	80	67	47	57	51	50	48	48
95	11:48	50	79	61	47	54	51	50	48	48
96	12:03	49	79	58	47	53	50	49	48	48

APPENDIX ‘B’

Photos and Drawing

PHOTO A – 22 Warren Street and the corner onto Fitzroy Street with microphone A out of third floor window

PHOTO B – Front of 22 Warren Street and corner onto Grafton Mews with microphone A out of third floor window

PHOTO C – View looking down Grafton Mews at the side of 20 Warren Street

PHOTO D – Rear view of 22 Warren Street from Grafton Mews with microphone B at top of fire escape stairs

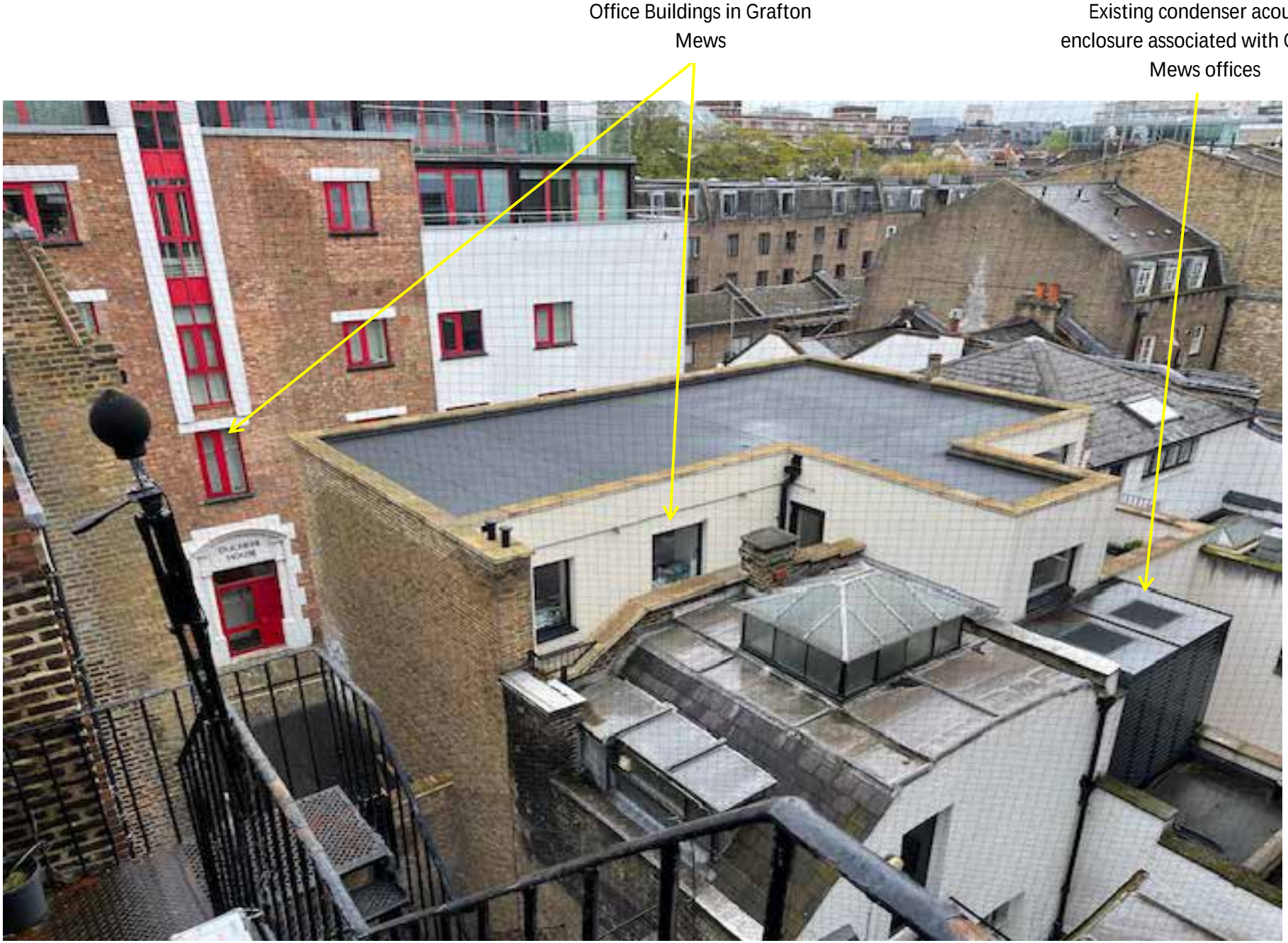
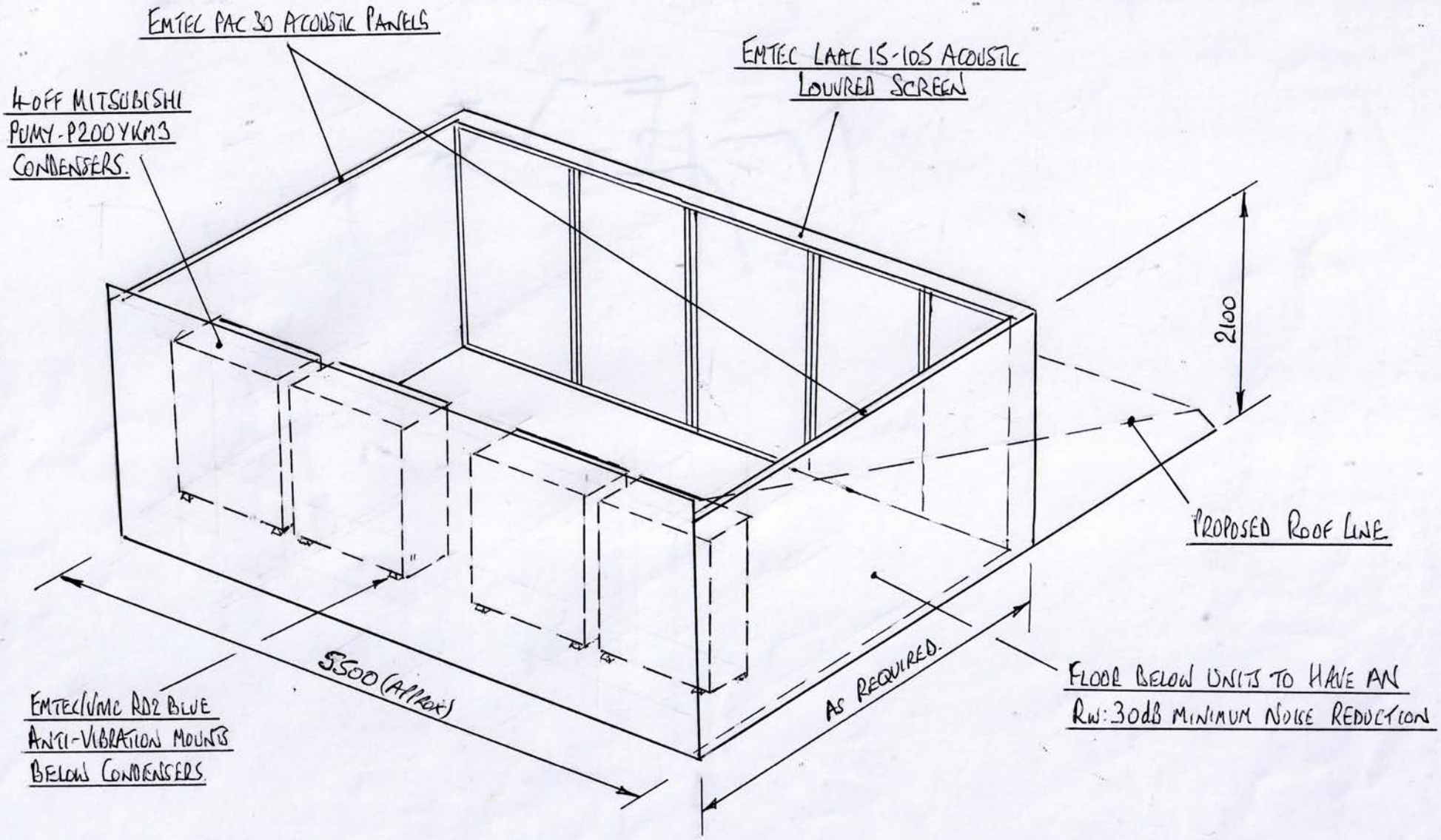


PHOTO E – Microphone B at top of fire escape staircase at rear of the building

PHOTO F – Rear façade of residential properties in Fitzroy Street

PHOTO G – Aerial view of site with microphone positions, nearest neighbours and proposed location of new plant

Revision	Issued	Date



Project	20-22 WARREN STREET, LONDON W1					
Client	PETER DEER & ASSOCIATES					
Designed by	Checked by	Approved by - date	Filename	Date drawn	Scale	
MGR	MGR	3/5/24	0F11378	03/05/24	NTS	

Title: LAYOUT OF ACOUSTIC SCREENING

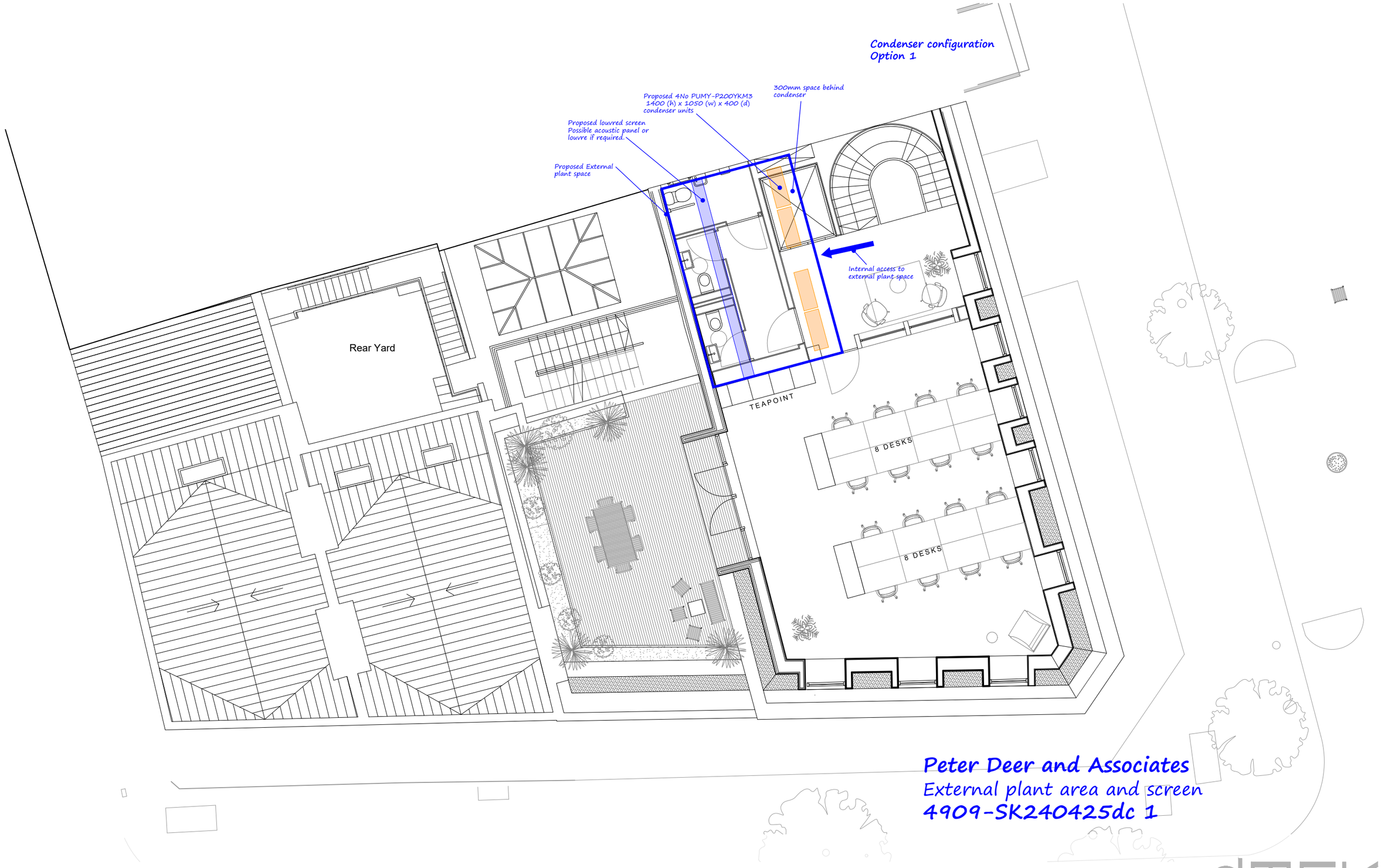
ALL DIMENSIONS IN mm UNLESS STATED

EMTEC
Unit L, Turn Pike Way, High Wycombe, Buckinghamshire. HP12 3TF
Telephone : 020 8848 3031 www.emtecproducts.co.uk

Drawing Number: QF/11378/GA1.

Revision: -

Works order No.: PF



Peter Deer and Associates

External plant area and screen

4909-SK240425dc 1

Date	Rev	Reason for issue
-		

Key Plan

0 2 4 6 8 10 metre

NOT IN SCOPE

Client
Broadland Properties Limited

Project
20-22 Warren Street

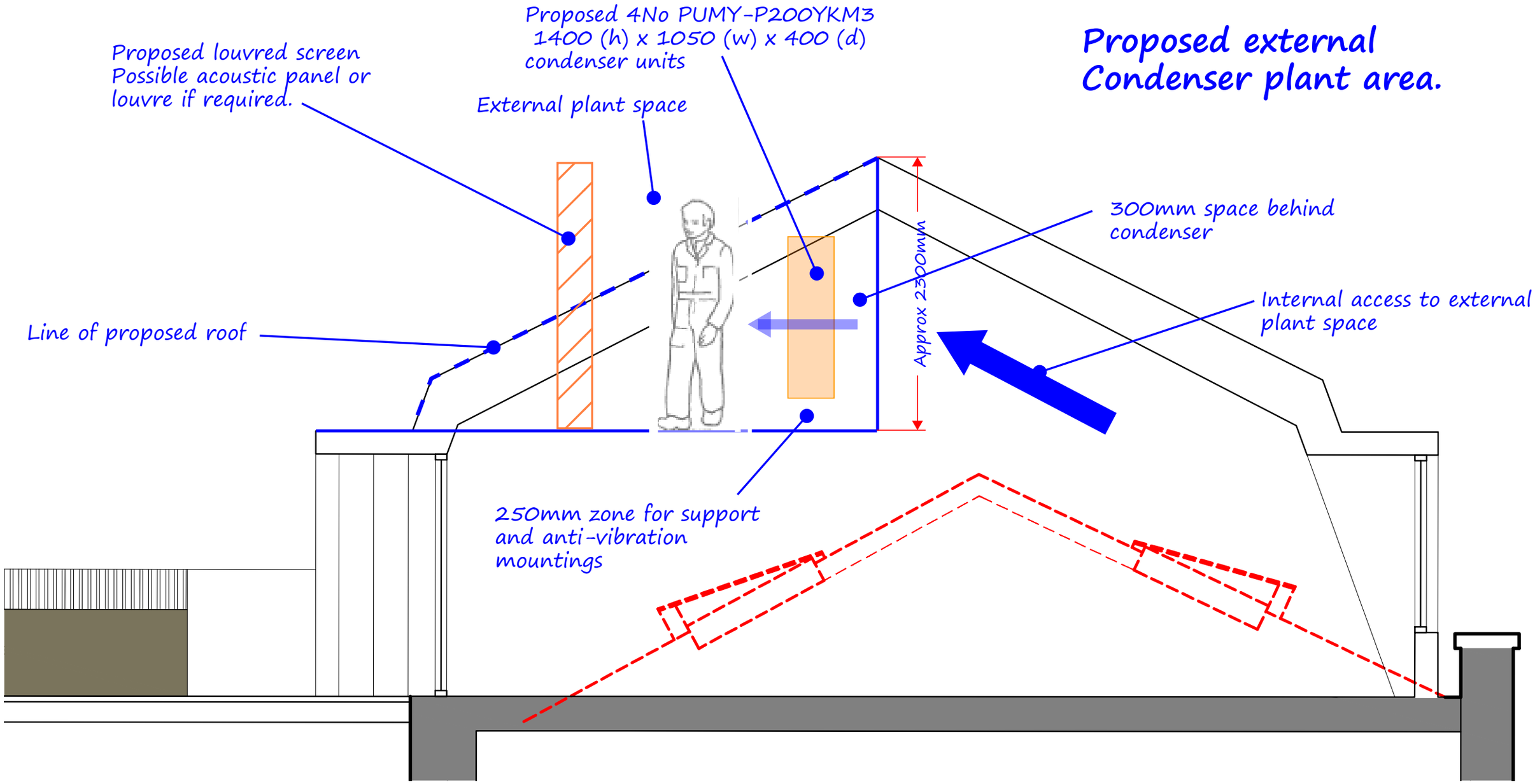
Drawing Title
Existing Third Floor Plan

dMFK
76 Charlotte St., London. W1T 4QS
t: 0207 435 1144 e: info@dmfk.co.uk w: www.dmfk.co.uk

Drawn By	Checked By	Scale @ A1	Scale @ A3
RP	-	1:100	1:200

	Project No.	Drawing No.	Revision
dMFK	2333	A11	-

Proposed external Condenser plant area.



Peter Deer and Associates

External plant area and screen

4909-SK240425dc 2