Cole Jarman

20-26 Lamb's Conduit Street, London

Noise Survey Report

Report 16/0689/R1

20-26 Lamb's Conduit Street, London

Noise Survey Report

Report 16/0689/R1

MHA London

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London
WC1A 2LP

Revision	Description	Date	Prepared	Approved
0	1st Issue	16 November 2016	Ben Holcombe	Tim Fox

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1 Introduction

1.1 Planning permission is being sought for the conversion of a basement level car park into a flexible use space.

1.2 Cole Jarman has been appointed to conduct a noise survey on site to determine appropriate noise levels and corresponding plant limits.

2 Site Description

2.1 The site is at basement level of 20-26 Lamb's Conduit Street, Camden, London. The site is on the corner of Richbell Place.

2.2 The site makes up the south-west corner of a parade of commercial units.

2.3 To the west is Harpur Mews, which is a small road, and commercial units including a gym. There are more commercial units to the south.

2.4 The rear of the site faces east, where there is a courtyard at ground floor level, enclosed by the commercial units making up the parade.

3 Environmental Noise Survey

3.1.1 Attended measurements were undertaken at two positions on site between the hours of 22h00 and 04h00 from 14th November to 15th November 2016.

3.1.2 The main noise source was observed to be the A401 (Theobalds Road) to the south. There were emergency vehicle sirens throughout the measurement duration. Plant noise was also noted, from the gym on Lamb's Conduit Street and from an extract vent on Emerald Street.

3.1.3 The two measurement positions are shown on the attached figure 16/0689/F1 and are detailed below:

- MP1 – on pavement on Lamb's Conduit Street to west of site, 0.5m away from the carriageway edge
- MP2 – on pavement on Emerald Street to east of site, 0.5m away from carriageway edge

3.1.4 Measurements were made in the L_{Aeq}, L_{Amax} and L_{A90} indices (see the Glossary of Acoustic Terms for an explanation of the noise units used).

3.1.5 The 22h00 to 23h00 hour is typically the quietest daytime hour and the night-time hours measured are typically the quietest period during a 24-hour period, therefore measured levels should be suitable for setting plant noise limits.

3.1.6 Noise measurements were performed using the equipment listed in the table below:

Item	Manufacturer	Type
Sound Level Analyser	Norsonic	118
Acoustic Calibrator	Norsonic	1251

T1 Equipment used during attended noise survey.

3.1.7 The microphone was fitted with a windshield and the sound level meter was calibrated before and after the survey to ensure a consistent and acceptable level of accuracy was maintained throughout. No significant drift was noted to have occurred.

3.1.8 Weather conditions during the survey were cold, dry and with some cloud cover.

4 Results

4.1 The survey results can be seen in attached schedule 16/0689/SCH1 for both measurement positions.

4.2 From these measured results, representative background levels have been calculated for the relevant time periods. These can be seen in the table below:

Location	Representative Background Level, dB	
	Daytime (0700-2300)	Night-time (2300-0700)
MP1 – Lamb's Conduit Street	53	45
MP2 – Emerald Street	49	47

T2 Representative background levels at the measurement positions

5 Plant Noise Limits

5.1 The Local Authority has set noise limits from plant and machinery limits to be the following:

Noise at 1 metre external to a sensitive façade during a day, evening and night period must be 5 dB(A) < L_{A90}.

5.2 This is taken from DP28 of the Camden Development Policies document adopted in 2010.

5.3 Mechanical plant services have had the following noise limits applied in accordance with the local authority's criteria:

Location	**Noise Emission Limit, dB**	
	Daytime (0700-2300)	**Night-time (2300-0700)**
MP1 – Lamb's Conduit Street	48	40
MP2 – Emerald Street	44	42

T3 Noise emission limits 1m from noise-sensitive windows

5.4 It is currently not known what plant items are planned to be installed, if any, however, those that are will have to meet the above limits.

6 Conclusion

6.1 Planning permission is being sought for the conversion of a basement level car park into a flexible use space.

6.2 Cole Jarman has been appointed to conduct a noise survey on site to determine appropriate noise levels and corresponding plant limits.

6.3 The results of this survey have been used to specify plant noise limits in line with the Local Authority's requirements.

End of Section

Glossary of Acoustic Terms

L_{Aeq}:

The notional steady sound level (in dB) which over a stated period of time, would have the same A-weighted acoustic energy as the A-weighted fluctuating noise measurement over that period. Values are sometimes written using the alternative expression dB(A) L_{eq}.

L_{Amax}:

The maximum A-weighted sound pressure level recorded over the period stated. L_{Amax} is sometimes used in assessing environmental noise when occasional loud noises occur, which may have little effect on the L_{Aeq} noise level. Unless described otherwise, L_{Amax} is measured using the "fast" sound level meter response.

L_{A10} & L_{A90}:

If non-steady noise is to be described, it is necessary to know both its level and degree of fluctuation. The L_{An} indices are used for this purpose. The term refers to the A-weighted level (in dB) exceeded for n% of the time specified. L_{A10} is the level exceeded for 10% of the time and as such gives an indication of the upper limit of fluctuating noise. Similarly L_{A90} gives an indication of the lower levels of fluctuating noise. It is often used to define the background noise.

L_{A10} is commonly used to describe traffic noise. Values of dB L_{An} are sometimes written using the alternative expression dB(A) L_{n}.

L_{AX}, L_{AE} or SEL

The single event noise exposure level which, when maintained for 1 second, contains the same quantity of sound energy as the actual time varying level of one noise event. L_{AX} values for contributing noise sources can be considered as individual building blocks in the construction of a calculated value of L_{Aeq} for the total noise. The L_{AX} term can sometimes be referred to as Exposure Level (L_{AE}) or Single Event Level (SEL).

End of Section

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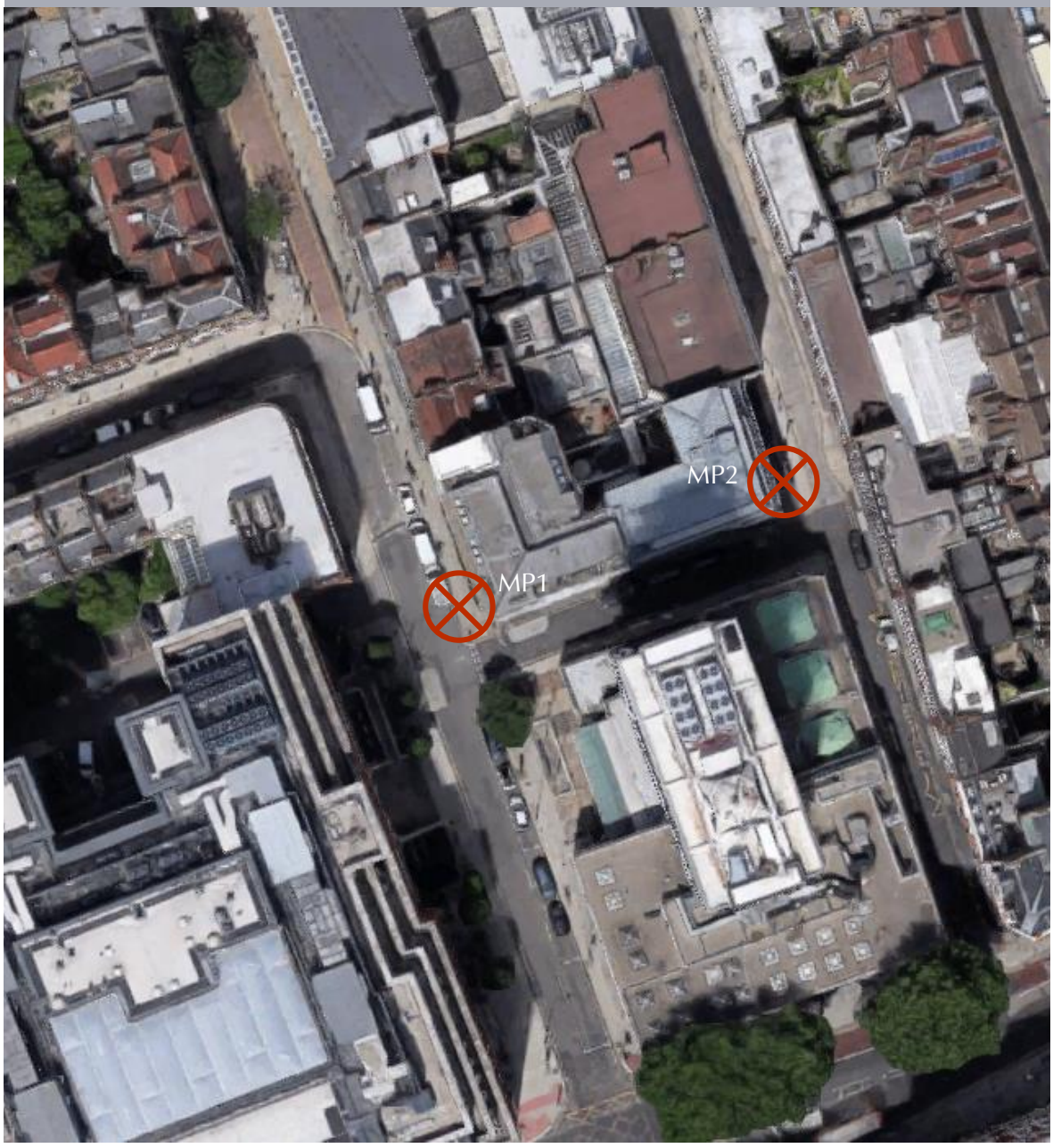
Figure 16/0689/F1



Title: Site plan showing measurement positions

Project: 20 – 26 Lamb's Conduit Street, London

Date: 16 November 2016

Scale: Not to scale

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Schedule 16/0689/SCH1

Noise Survey Results

Measurement Position 1

Period	L_{Aeq}	L_{Amax}	L_{A90}
2200-2300	57	77	53
2300-0000	56	77	53
0000-0100	56	78	46
0100-0200	50	76	45
0200-0300	57	78	45
0300-0400	51	71	45

Measurement Position 2

Period	L_{Aeq}	L_{Amax}	L_{A90}
2200-2300	54	64	49
2300-0000	53	65	48
0000-0100	52	59	48
0100-0200	53	65	48
0200-0300	51	53	47
0300-0400	51	70	47

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