auricl
acoustic consulting

The Gramophone
Blyth Road
Hayes

Noise Survey Report

29 June 2020

For

Really Local Group (Hayes) Limited

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Contents

SUMMARY

The Gramophone is a new cultural hub, proposed on Blyth Road in Hayes. The project will include 4 screen cinema, with retail, bar, restaurant and exhibition spaces and ancillary spaces .

A noise survey was carried out at the site between Tuesday 25 May 2020 and Wednesday 26 May 2020 to determine existing ambient noise levels affecting the facades of the development and background noise levels at the nearest noise sensitive properties.

The methodology and results of the survey have been presented.

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1.0 Introduction

The Gramophone is a new cultural hub, proposed on Blyth Road in Hayes. The project will include 4 screen cinema, with retail, bar, restaurant and exhibition spaces and ancillary spaces.

The following report presents the methodology and results of a noise survey carried out at the site to determine existing ambient noise levels affecting the facades of the development and background noise levels at the nearest noise sensitive properties.

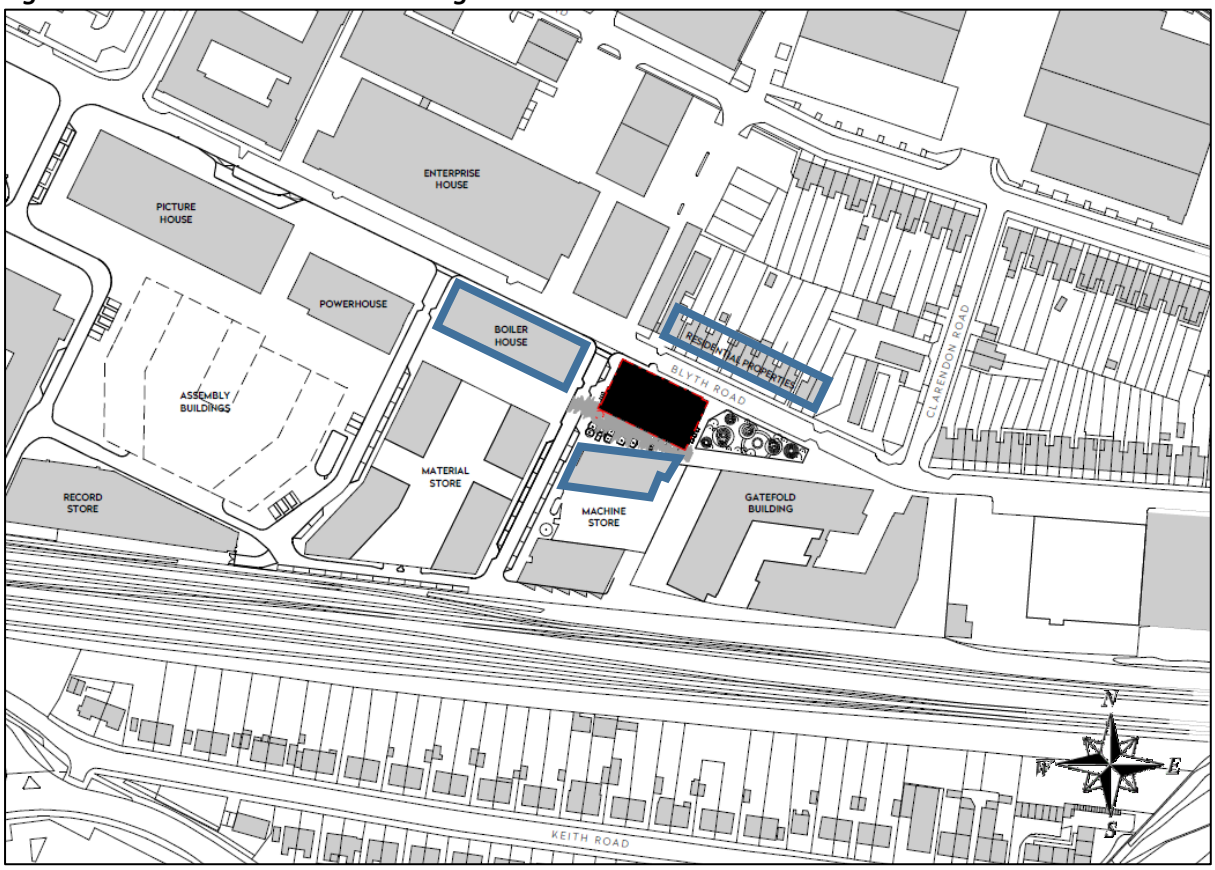
An explanation of the acoustic terminology used in this report is given in Appendix A.

2.0 Description of Site and Surroundings

The proposed development site is located on the south-western side of Blyth Road in Hayes, in a mixed residential and commercial area. Existing residential houses are located on the north-eastern side of Blyth Road, whilst blocks of new residential flats are located to the south-east and north-west of the site. Further residential properties are also proposed on the Machine Store site, to the south-west of the proposed building.

Figure 2.1 indicates the approximate existing site extent in **red** and the nearest noise sensitive properties indicated in **blue**.

Figure 2.1 Site Extent and Surroundings



3.0 Noise Survey

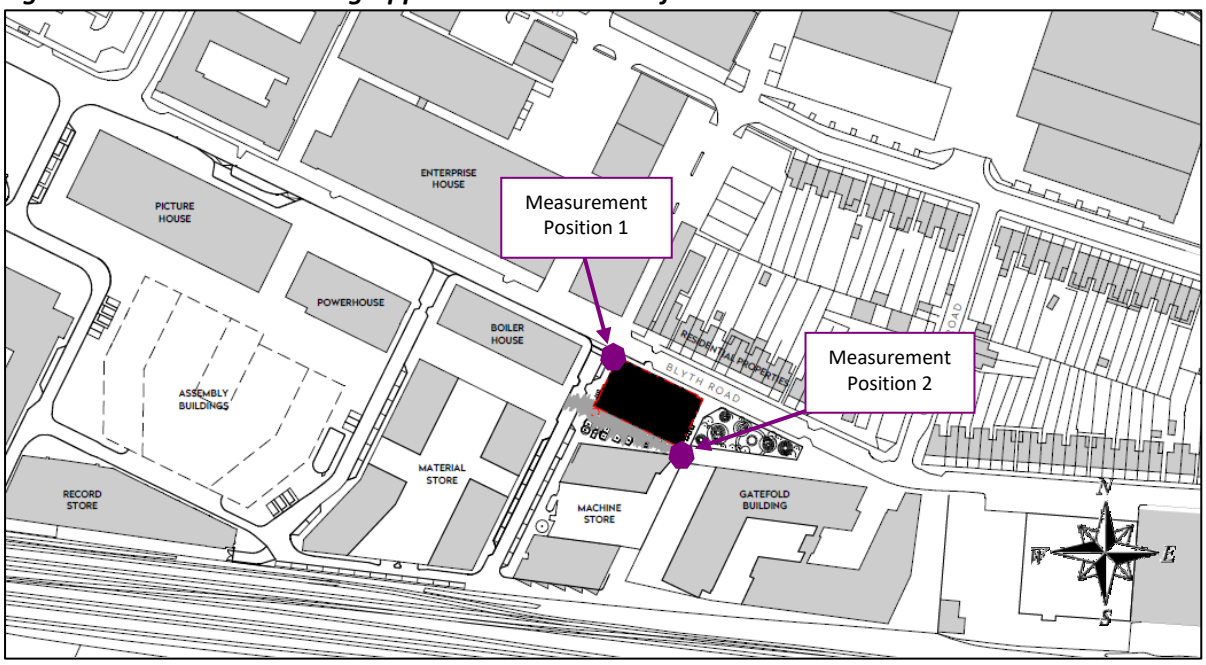
3.1 Methodology

An unmanned environmental noise survey was undertaken at two measurement positions at the proposed development site between Tuesday 26 May 2020 and Wednesday 27 May 2020.

The noise survey was undertaken during the latter part of the Covid-19 lockdown, however background noise levels are not considered to have been higher during the survey period and therefore still represent a robust baseline against which noise impacts can be compared.

The approximate measurement positions are shown in Figure 3.1.

Figure 3.1 Site Plan Indicating Approximate Location of Measurement Positions



Measurement position 1 was located at the north-western corner of the site overlooking Blyth Road. The measurement position is considered representative of the nearest noise sensitive properties to the north-east and north-west of the site, while also being representative of the north-east, north-west and south-west facades of the proposed development which are most subject to road traffic noise from Blyth Road.

Measurement position 2 was located at the south-eastern corner of the site. The measurement position is considered representative of the nearest noise sensitive properties to the south-east and the proposed residential properties to the south-west of the site, while also being representative of the south-west façade of the proposed development.

The measurement positions were located approximately 3m above ground level in free-field.

The equipment used for the noise survey is summarised in Table 3.1.

Table 3.1 Description of Equipment used for Noise Survey

Measurement Position	Item	Make & Model	Serial Number
1	Type 1 automated logging sound level meter	SVAN 945A	11906
	Type 1 ½" microphone	GRAS 40AN	56012
	Calibrator	01dB CAL31	86020
2	Type 1 automated logging sound level meter	01dB FUSION	12032
	Type 1 ½" microphone	GRAS 40CE	330829
	Calibrator	01dB CAL31	87267

The noise monitoring equipment was calibrated before and after the noise survey period. No significant change was found. Laboratory equipment calibration certificates can be provided upon request.

Due to the nature of the noise survey, i.e. unmanned, we are unable to comment on the weather conditions throughout the entire noise survey period, however at the beginning and end of the survey period, there was noted to be no rainfall, a clear sky and only light wind. These conditions are understood to be representative of the majority of the survey period and are considered appropriate for undertaking environmental noise measurements.

3.2 Noise Survey Results

The results of the continuous noise survey at each position are presented in graphical form in Appendix B.

A summary of the L_{Aeq} and L_{Amax} ambient noise levels affecting the façades of the proposed development, and the lowest background noise levels representative of nearest noise sensitive properties are presented in Table 3.2.

Table 3.2 Summary of Noise Survey Results

Measurement Position	Measured Noise Level (dB)		
	Parameter	Daytime (07:00 – 23:00 hours)	Night-time (23:00 – 07:00 hours)
1	Highest $L_{Aeq, 1\ hour}$	65	61
	Highest Measured $L_{Amax, 15\ min}$	97	88
	Typical Measured $L_{A90, T}$	42	33
2	Highest $L_{Aeq, 1\ hour}$	57	54
	Highest Measured $L_{Amax, 15\ min}$	89	80
	Typical Measured $L_{A90, T}$	38	32

During our site visits, the local noise climate was affected mostly by road traffic noise from Blyth Road.

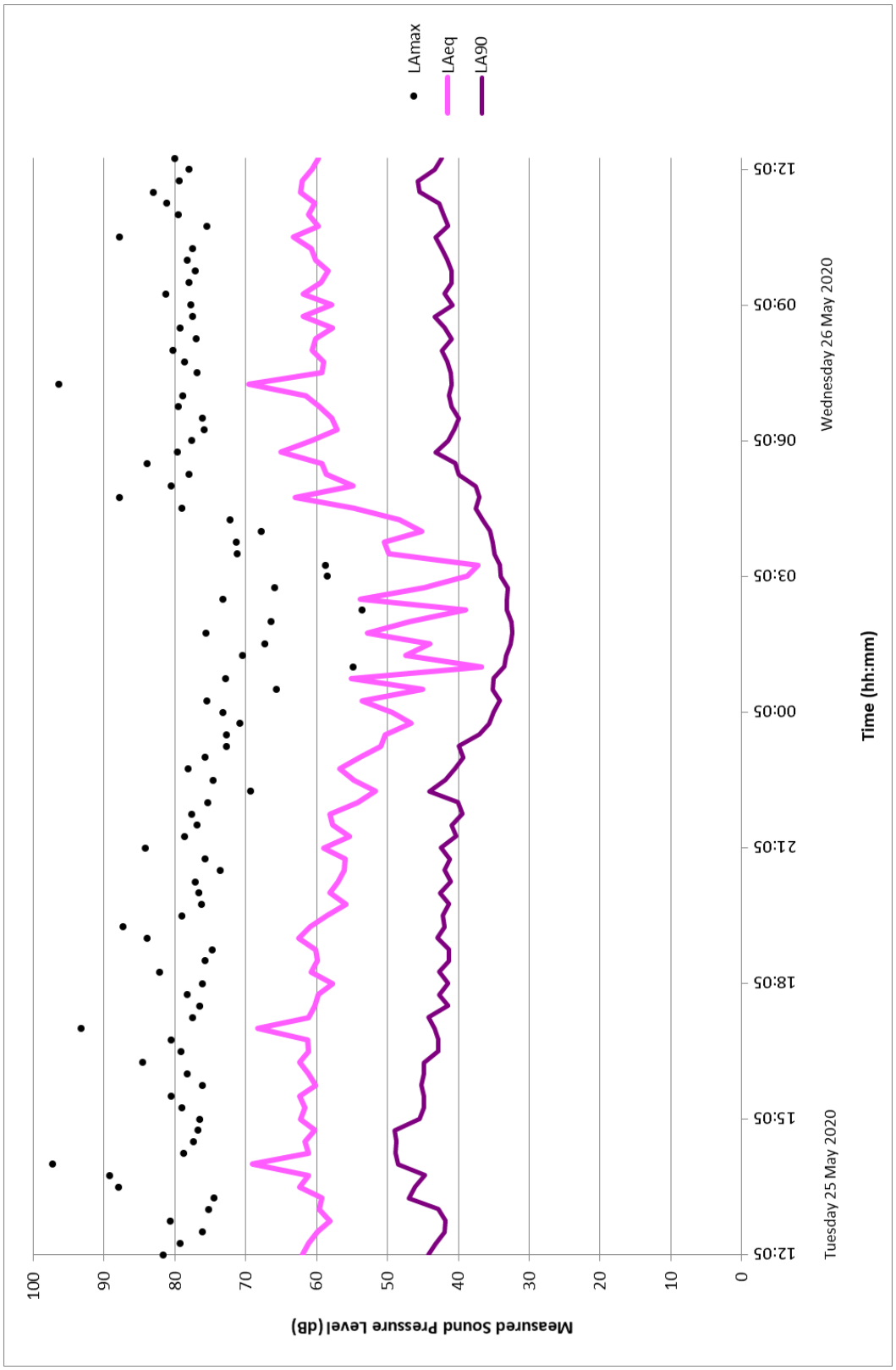
The measured noise levels are considered reasonable, taking into account the measurement positions and nearby dominant noise sources.

Appendix A – Acoustic Terminology

Parameter	Description
Decibel (dB)	A logarithmic scale representing the sound pressure or power level relative to the threshold of hearing ($20x10^{-6}$ Pascals).
Sound Pressure Level (L_p)	The sound pressure level is the sound pressure fluctuation caused by vibrating objects relative to the threshold of hearing.
A-weighting (L_A or dBA)	The sound level in dB with a filter applied to increase certain frequencies and decrease others to correspond with the average human response to sound.
$L_{Aeq,T}$	The A-weighted equivalent continuous noise level over the time period T (typically T= 1 hour for noise impact assessments during daytime periods and T = 15 minutes for night-time periods). This is the sound level that is equivalent to the average energy of noise recorded over a given period.
$L_{A90\ (15\ min)}$	The noise level exceeded for 90% of the time (also referred to as the background noise level), measured over a 15-minute period

Appendix B – Time History Graphs

Measurement Position 1



Measurement Position 2