



Ref: P4183/L09/PJK

22 September 2022

Mr N Mussarat
Property Hub
Universal Square
Suite 2
Ground Floor, Building 3
Devonshire Street North
Manchester
M12 6JH

Dear Nabeel,

Commercial Unit, Wilmslow Road, Fallowfield – Planning Condition 7

Introduction

Acoustic & Engineering Consultants Limited (AEC) has attended site on Thursday 22 September 2022 to undertake noise measurements of the mechanical services plant associated with the German Donor Kebab (GDK) restaurant at 311-313 Wilmslow Road, Fallowfield.

During the site visit noise measurements were undertaken external to the bedroom of Flat 3, 311-313 Wilmslow Road, Fallowfield which has been determined by others to be the most noise sensitive receptor.

Introduction and Background

An assessment of the plant associated with GDK was issued by Sound Planning (report ref. J04352R2) in May 2021. AEC understands that as all of the items of plant identified in the Sound Planning assessment were not installed on-site, a further assessment was undertaken by Hepworth Acoustics (report ref. MEMO P21-164-M01v1).

The Hepworth Acoustics report was based on achieving a free-field noise level limit of 37dB(A) during the daytime and 34dB(A) at night due to plant noise. This would result in noise from the plant being controlled to -5dB below background.

Following the issuing the Hepworth Acoustics assessment, Manchester City Council requested further information in their document dated 15 June 2022. In relation to Planning Condition they have requested the following:

“Condition 7

It is noted that the approved scheme has not been implemented as the submitted information confirms that old plant will continue to be used.

- i. The new scheme has not been approved and does not comply with the noise criteria (possibly due to a faulty fan).*
- ii. The recommendations of the previous report (lagging the kitchen ductwork) have not been implemented.*
- iii. Noise from the kitchen extraction termination was not measured due to the high level of the termination and although the consultant indicates they don't believe there will be a significant contribution to the noise outside the apartment window due to the termination, the report needs to consider the cumulative noise from all external intakes / extracts and plant in the development.*
- iv. Although the noise levels were measured on-site, they were not measured outside the nearest residential window, so the value at the window is a calculated value. Does the window open? If so the noise readings can be taken out of the window of the flat affected.”*

Please find AEC's comments on Condition 7, below.

Planning Condition 7

In their memo, Hepworth Acoustics identified that toilet extract fan was emitting relatively high level of noise and was potentially faulty. AEC has been informed by the operators of GDK that the toilet extract fan has been replaced and the information of the new unit will be provided by GDK.

During a site visit undertaken by AEC on Thursday 22 September 2022, ambient and background noise levels were measured at a distance of 1m from the window of Flat 3. The measured ambient and background noise levels with all the plant operating simultaneously and without any plant operating are presented in Table 1, below.

Table 1 – Noise Levels External to Flat 3

Plant Operating	Noise Level Limit, dB	
	Ambient	Background
Yes	45 $L_{Aeq,5min}$	43 $L_{A90,5min}$
No	45 $L_{Aeq,1min}$	44 $L_{A90,1min}$

As the noise levels were measured at a façade location, a -3dB correction has been applied to the measured levels as per guidance in BS7445-2: 1991 '*Description and measurement of environmental noise – Part 2: Guide to the acquisition of data pertinent to land use*'.

The measured noise levels indicate that noise level with all of the GDK plant operating simultaneously would be around 34dB $L_{Aeq,T}$. This complies with the night-time noise level limit presented in the Hepworth Acoustics report, and therefore, the planning condition.

Yours sincerely



Paul Knowles

Checked by: DMT

APPENDIX A – Acoustic Terminology in Brief

Sound Description

Sound is produced by mechanical vibration of a surface, which sets up rapid pressure fluctuations in the surrounding air. The rate at which the pressure fluctuations occur determines the pitch or *frequency* of the sound. The frequency is expressed in Hertz (*Hz*), that is, cycles per second. The human ear is sensitive to sounds from about 20 Hertz to 20,000 Hertz. Although sound can be of one discrete frequency - a 'pure tone' - most sound is made up of many different frequencies.

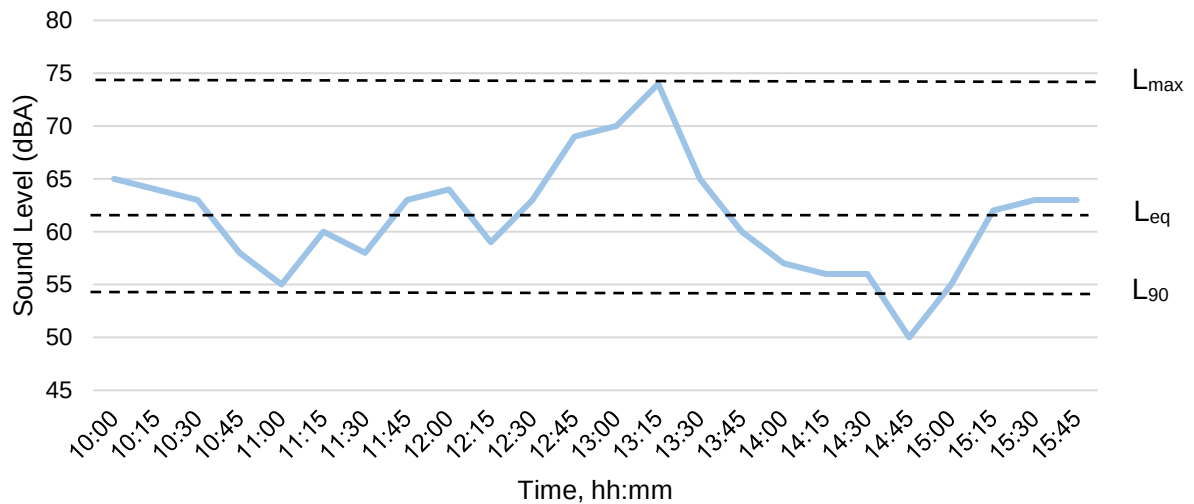
The human ear is more sensitive to some frequencies than others, and modern instruments can measure sound in the same subjective way. This is the basis of the A-weighted sound pressure level *dBA*, normally used to assess the effect of noise on people. The *dBA* weighting emphasises or reduces the importance of certain frequencies within the audible range.

Sound Units

In order to assess environmental noise, measurements are carried out by sampling over specific periods of time, such as fifteen minutes or one hour, the statistically determined results being used to quantify various aspects of the sound.

The figure below shows an example of sound level varying with time. Because of this time variation, the same period of sound can be described by several different levels. The most common of these are described below. It should be noted that in many instances in the main body of text, the unit will be preceded by a dB descriptor in the report e.g. $L_{Aeq,T}$ could be written $dB L_{Aeq,T}$.

Example of Sound Varying with Time



Unit Type	Acoustic Unit	Description
Ambient Sound Level	$L_{Aeq, T}$	The equivalent continuous (A-weighted) sound level. It may be thought of as the “average” sound level over a given time, T. It is used for assessing noise from various sources: industrial and commercial premises, construction sites, railways and other intermittent noises and can be considered as the “ambient” noise level.
Background Sound Level	L_{A90}	The (A-weighted) sound level exceeded for 90% of a measurement period. It is the value often used to describe background noise.
Free-field Level	-	This refers to the sound level measured outside, away from reflecting surfaces.
Façade Level	-	This refers to the sound level measured outside, at 1m from a hard-reflecting surface, typically 3dB greater than the free-field level.