



Tel: 033 3303 1422
Email: info@noiseassessments.co.uk
www: noiseassessments.co.uk
Reg No. 12207511

3rd June 2024

Ref: NALPRO270324.01

Chandni Restaurant,
4 Kingsway Building,
Manchester,
M19 1PH

SENT VIA EMAIL ONLY

Noise Impact Assessment: Verification Survey

Noise Assessments Ltd was commissioned to undertake a noise assessment verification survey at the above site following the installation of an extraction system with appropriate silencer (-13dB) during the daytime (28th May 2024).

A noise assessment for planning approval was issued in April 2024 (NALPRO270324.01b).

Existing Context

The site (ground floor) is set within a commercial/residential row of two story attached building located along a busy main street for traffic. The site is surrounded by a mixture of commercial shops/offices, restaurants, residential buildings, and apartments on the top floors.

Noise Guidance

The rating level (noise from the commercial site) is to be compared to the background sound level to determine the resultant noise impact in accordance with BS4142:

- A Sound Rating Level at or below the background noise level is indicative of Low Impact;
- A Sound Rating Level that exceeds the background noise level by around + 5dB is likely an indication of Adverse Impact, depending on the context;
- A Sound Rating Level that exceeds the background noise level by around + 10dB is likely an indication of Significant Adverse Impact, depending on the context.

Measurement Equipment

Measurements were undertaken using a calibrated, Pulsar N45 class 1 sound level meter. Full details as available on request.

During all measurements the microphone was protected with an outdoor windshield.

The calibration level of the meter was checked before and after the survey with a sound calibrator with no variation in the levels observed.

The sound level meters were set to measure various noise parameters including LAeq values using a 'fast' time weighting. Calibration certificates have been included.

Weather Conditions

Weather conditions were deemed acceptable for noise measurements outside.

Noise Survey

The environmental noise levels were measured on site 2nd April 2024.

The lowest daytime background sound level was measured between 21:45-22:00 as **41 dB LA90,15min**.

Figure 1: Site & Measurement Location



 Background measurement location M1
 Site location
 NSR1 (3m)  NSR2 (31m)

Measured noise level from extraction exit point: L_{Aeq} 48 dB @1m

Specific Sound Levels

The specific sound level is denoted L_A s and is the A-weighted, equivalent noise level measured at the NSR façade location over the reference time period.

The calculated Specific Sound Level (see appendix B) of the extraction system motor at the nearest NSR location is summarised below.

Specific Sound Level	
NSR	Specific Sound Level, dB L_{A_s}
1 (3m)	32
2 (31m)	17

The noise impact during the daytime is tabulated below:

Noise Impact - Daytime			
NSR	Rating Level, dB L _{Ar}	Difference, dBA	Impact
1	32 (+3dB tonality)	-5	<i>Low Impact</i>
2	17 (+3db tonality)	-21	<i>Low Impact</i>

The Sound Rating Level from the extraction system flue at the nearest receptors is below the background noise level and is an indication of ***Low Impact***.

Summary

Following the installation of the extraction system and appropriate silencer venting on nearby residents the results demonstrate that there is unlikely to be any noise disturbance from the operation of the restaurant extraction system during the daytime.

Recommendations

No further mitigation measures are recommended.

Yours sincerely



Jonathan Mape BSC (Hons) PgDip TechIOA
Technical Director

Appendix A

Utilising Measured Levels

Equipment	Measured Noise Level, dB L_{Aeq}	r_1 , m	r_2 , m	Barrier	Level at NSR ₂
Extraction exit with silencer	48	3	1.0	-5	33 (NSR1)
	48	31	1.0	-	18 (NSR2)

Barrier attenuation assumed as 5 dB and 10 dB for the partial and complete blockage of the line of sight respectively between source and receiver as per 'BS5228-1:2009 – Noise and vibration control on construction and open sites' pg. 130.

Point source distance attenuation: $L_y = 20 \times \log \frac{r_1}{r_2}$

Where L_y is the distance attenuation factor and $r_{1,2}$ are the source -> measurement distance and source -> NSR distance in meters respectively