

Technical Memorandum

To: Shuja Rehman (Xenon 303 Ltd)

From: Mike Potts (EnviroSolution Ltd)

CC:

Date: 11 October 2024

Re: 492 – 494 Claremont Road, Rusholme, Manchester. Confirmation of suitable internal acoustic conditions in newly constructed properties

Introduction

This technical memorandum has been prepared by Mike Potts of EnviroSolution Ltd; Mr Potts is a Member of the Institute of Acoustics (MIOA) and is an Acoustic Consultant with over 23 years' experience in environmental noise assessment, within both regulatory and private industry roles at a senior level and including experience in the provision of Expert Witness evidence at Public Inquiry.

This document provides confirmation of the attainment of suitable acoustic conditions within habitable rooms at the above development and, consequently, compliance with a pre-commencement planning condition on the development.

Background

As part of the planning application process, a noise assessment¹ was undertaken, incorporating a noise measurement survey, which identified that the site was subject to elevated levels of noise associated with the movement of vehicles on Claremont Road. Consequently, the noise report recommended "... *uprated glazing for first floor bedrooms facing the roads ...*".

The development was granted planning approval with a planning condition which requires:

"Prior to first occupation of the residential units, a verification report will be required to validate that the work undertaken throughout the development conforms to the recommendations and requirements in the approved acoustic consultant's report. The report shall also undertake post-completion testing to confirm that the internal noise criteria have been met. Any instances of non-conformity with the recommendations in the report shall be detailed along with any measures required to ensure compliance with the internal noise criteria."

Reason: To secure a reduction in noise from traffic or other sources in order to protect future residents from noise disturbance and to reduce the potential for overheating, pursuant to Core Strategy Policy DM1".

¹ Echo Acoustics 21/10/2021 "Residential development at 492 to 494 Claremont Road, Rusholme, Manchester M14 5WA: Noise Assessment"

Methodology

Following completion of the development, a further noise survey was undertaken, between 9:15am on Friday 13 September and 0:450 on Tuesday 17 September 2024, within a first floor bedroom in one of the properties immediately overlooking Claremont Road.

An Nti XL2 Class 1 (IEC 61672:2013) integrating, averaging sound level meter was placed off-centre in the room, approximately 1.5 metres from the window. The meter was field-calibrated before and after the survey and no variation in calibration tone was observed.

The bedroom window was closed and trickle ventilation unit opened. The room was unfurnished and the door onto the landing was closed.

The meter was left to record continuous, consecutive 15-minute noise levels for a number of days; during this time, work was undertaken on the ground floor of the building, including drilling into brickwork; this is reflected in the data and the affected data were discounted from the assessment.

The rooms have been provided with 4-20-4 glazing (panes of glass 4mm thick with a 20mm gap); this is a higher specification of glazing than 'standard' thermal double-glazing.

Results and discussion

The measurement data are summarised in Table 1, comprising the day time (7:00am – 11:00pm) and night time (11:00pm – 7:00am) data.

Day	Period	Measured noise (dB)	
		L_{Aeq}	L_{AFmax}
Fri	Day	33*	-
	Night	28	47
Sat	Day	33	-
	Night	34	49
Sun	Day	34*	-
	Night	27	47
Mon	Day	33	-
	Night	29	43
Median	Day	33	-
	Night	29	49

* Excluding ground floor works

The data show that the measured day time noise levels in the bedroom were 33 dB $L_{Aeq,16h}$, and night time noise levels were between 27 and 34 dB $L_{Aeq,8h}$ and up to 49 dB L_{Amax} . It is often the case that noise levels on weekends are elevated, as is seen with the night time data for the Saturday night; the median night time ambient noise level was calculated to be 29 dB $L_{Aeq,8h}$. It is also worth noting that, when furnished, noise levels within the bedroom are likely to be between 3 and 5 dB lower as soft furnishings absorb significant amounts of sound energy.

It is also noted that a higher specification of glazing has been provided in bedrooms, as required in the noise assessment report¹.

In light of these considerations, it is concluded that day time ambient (L_{Aeq}) noise levels, within the habitable rooms of the development, are below the levels set in the pre-commencement condition whilst maximum (L_{Amax}) night time noise levels, when the rooms are furnished, will be within 1 dB (above or below) of the conditioned level.

The assessment concludes, therefore, that the up-rated glazing installed is providing a suitable level of sound insulation to ensure suitable acoustic conditions for residents of the houses, and that the planning condition can be considered to have been discharged.