



Reference: Saltbox Unit 3

Project No: 1818341

Date: 1st July 2021

Technical Note

Re: Unit 3, Saltbox, Bognor Regis. Assessment of sound emissions from plant noise to the local neighbourhood and discharge of Planning Condition 20.

Introduction

- 1 This Technical Note has been prepared by Sharps Redmore.
- 2 The purpose of this assessment is to gauge whether the sound levels for external plant, the details of which are shown as typical outdoor units for the type of applications for Unit 3, would satisfy the recommendations in Planning Condition 20.

C20. Noise

Noise Reports shall be submitted with the applications for reserved matters for Unit 1 and Unit 3 and the recommendations for approval in writing by the Local Planning Authority and the recommendations shall be implemented prior to first occupation of Unit 1 and Unit 3 on the Part 2 Development

The Planning noise advice document for Sussex (March 2021) contains the following guidance:

3.2 Guidelines and Criteria

3.2.1. The rating level of the industrial or commercial sound source should, where practicable, achieve a level no greater than the representative background sound, when measured in accordance with BS 4142:2014 + A1: 2019.

- 3 A noise survey has been previously undertaken by Sharps Redmore to accompany the planning application. This determined existing background and ambient levels at the boundary to the nearest noise sensitive receptors to the north of the site on Shripney Road at approximately 150m, over approximately a 24-hour period. The typical ambient and background levels as measured at nearest noise sensitive receptors to be as follows in table 1:

- 10 Table 2 sets out the procedure for predicting the plant sound level at 150m from the proposed plant, assuming all plant is running simultaneously. To provide robust assessment we have considered the Sussex criteria of not exceeding existing background levels measured at the survey as shown below in table 2.

Table 2

Cumulative Proposed Plant. Sound level prediction at nearest residential.

	Predicted noise level	
	Day (0700-2300)	Night (2300-0700)
Daikin RZQG140L7Y1B x4 SWL	75 dBA	75 dBA
Distance attenuation (r=150). $SPL = SWL - 20\log(r) - 8$	53	53
Resultant External	22 dBA	22 dBA
Typical Background L_{A90}	48 dBA	34 dBA
Difference	-26	-12
Sussex Noise Policy Requirement	48 dBA	34 dBA
Comply with Requirement and Condition	YES	YES

- 11 The expectation is that the totality of all plant operating at their highest sound output quoted, and simultaneously, would be 22 dB $L_{Aeq,T,façade}$ at the nearest residential property.

Assessment

- 12 The planning condition 20 refers to a scheme to control noise being submitted and the Sussex Noise Policy recommends that any plant should not exceed existing background levels.
- 13 Given typical background levels, the operations during day and night time are significantly below background levels and in the context of the lowest daytime and night-time background sound levels of 35 dB L_{A90T} and 25 dB L_{A90T} respectively, the estimated level falls between 13 dB and 2 dB below respectively. Given existing ambient levels, distance involved, magnitude of difference and absolute levels it is not considered necessary to apply any feature corrections.
- 14 It is concluded that sound levels would be acceptable for the typical external plant associated with the proposal, satisfying the requirements of the condition, enabling condition 20 to be discharged.

Martin Court MIOA

