

AS14422 Kanes Hill, Hedge End – Condition Discharge

Construction Noise Monitoring Proposals

Ref: O/18/82750, Condition 10:

“10 Prior to the commencement of any demolition or construction operations (including piling) on the site a detailed assessment of the noise and vibration impacts arising from these operations and a scheme of measures for the mitigation of these impacts shall have been submitted to and approved in writing by the Local Planning Authority. The demolition and construction phase of the approved development shall be carried out only in strict accordance with the approved mitigation scheme, and the implementation of the measures set out there in [sic] shall be verified by the submission to and approval in writing by the Local Planning Authority of a verification report of such implementation

Reason: To minimise the effect of noise and vibration pollution on human health and amenity and on the natural environment.”

Clarke Saunders Acoustics (CSA) has previously prepared a Construction Noise and Vibration Impact Assessment (CNVIA), ref. 14422.260126.CNVIA, of the proposed construction programme. On the basis of the information available in the Construction Environmental Management Statement (CEMS), the CNVIA outlined the ability of the construction programme to maintain appropriate noise levels at nearby receptors, with respect to both fixed and relative thresholds set out in BS5228-1:2009+A1:2014 *Code of practice for noise and vibration control on construction and open sites – Part 1: Noise (BS5228-1)*.

The wide range of machinery used, variability of the programme and large extent of the site has been acknowledged, and following subsequent liaison with Eastleigh Borough Council's (EBC) Environmental Health Department, this Method Statement is prepared and co-ordinated to further validate the predicted noise levels in the CNVIA.

It is noted that piling is explicitly mentioned in Condition 10 as a potential noise source. To minimise risk of impact on nearby receptors, the developer has opted to implement pad foundations in lieu of piled foundations. No piling activity is therefore proposed.

From review of the preliminary construction programme and co-ordination with Mr Andre Pires, a Pollution Control Officer at EBC, it was agreed that a period in which the 3no. proposed 13-tonne excavators were breaking ground, would be a good representative of more noise intensive activity on site.

The following Method Statement is, therefore, prepared to measure resultant noise levels from intensive construction activity and review whether further mitigation is required throughout the construction programme to protect nearby residents. CSA are appointed to undertake the proposed survey works and assessment. CSA is a Member of The Association of Noise Consultants. All of its consultancy team are Members of the Institute of Acoustics.

Method Statement

We will visit site and undertake a noise survey to determine the external noise levels at two of the nearby residential receptors to the east and the south of the site. The survey will be organised to occur on a day where the three proposed 13-tonne excavators are present on-site and simultaneous undertaking works. From the preliminary programme, the earliest in which this is expected is week 15 (September 2026). The measurements will be undertaken as part of programmed works for the excavators, to provide a realistic representative of noise levels that would be expected at nearby receptors.

Measurements will be undertaken in two positions as indicated in the attached site plan. The exact positions will be determined by the engineer during the survey installation such that a representative validation exercise can be achieved. Where access is permitted, the sound level meters will be located within the gardens of the dwellings; otherwise they will be located on the site boundaries, as close to the dwellings as site constraints permit.

Class 1 sound level meters will be used, complying with the requirements of BS EN 61672-1:2003. These will be field calibrated with a class 1 calibrator complying with IEC 60942:2003. Calibration will be verified immediately before and after the survey period to check for any significant drift.

All measurements will follow the guidance stated in BS 7445: 1991 *Description and measurement of environmental noise Part 2 - Acquisition of data pertinent to land use*.

The survey will involve automated, unattended continuous monitoring over a minimum 10-hour construction period, to establish trends in noise variations throughout the permitted construction hours (08:00 – 18:00 Monday to Friday, 08:00 – 13:00 Saturday). This will allow direct comparison to the thresholds set out in BS5228-1. Measurements will be undertaken using a 5-minute sampling period recording L_{Aeq} , L_{Amax} , L_{A10} and L_{A90} parameters.

CSA staff will remain on-site for a minimum period of 1-hour to verify the construction activities occurring during the survey.

No access within the dwellings would be required during the survey.

Data analysis will determine the $L_{Aeq, 10hour}$ noise level to demonstrate compliance, or not, with the thresholds in BS5228-1 and the CNVIA prepared by CSA. The measured noise levels and thresholds will be summarised in a technical note for submission to the Environmental Health Department.

Where the targeted thresholds are found to be exceeded, outline mitigation advice will be provided in the technical note. It will be the responsibility of the developer to agree the extent of the mitigation measures with the Environmental Health Department and provide a statement of evidence to demonstrate compliance and that best practicable means are being used to reduce impact.

Potential Mitigation Measures

Due to the size of machinery involved, construction noise can be difficult to mitigate and may involve solutions which can prolong the period of construction. Potential for prolonged impact should be considered within decisions regarding acoustic mitigation strategies.

Some potential strategies may involve:

- Erection of temporary acoustic barriers between noisy activity and the nearby dwellings;
- Reduction of construction hours;
- Periods of construction rest; typically 2-hours on / 2-hours off.
- Reselection and use of lower noise equipment;
- Using fewer simultaneous items of plant;
- Variation of construction programme to complete eastern acoustic barrier and building massing early in the construction programme, to provide acoustic screening to receptors to east.



Indicative Site Plan

Figure AS14422/SP1