

Environmental Control and Protection - Planning Consultation Response

To Planning Officer: Adam Madge

From Environmental Control and Protection Officer: Damaris Broad

Date: 20/10/2025

Planning Application Reference:	PL/2024/05527
Environmental Health Reference:	PR202407-506641
Description of Proposal:	Redevelopment of site to deliver extension to existing Spring Park data centre campus consisting of (a) free standing data centre building (b) energy, power, and water infrastructure (c) site access and internal roads (d) site security arrangements (e) diverted Public Rights of Ways (f) hard and soft, green and blue, landscaping and (g) other ancillary and auxiliary forms of development
Address:	Land South of Westwells Road
Site Visited:	Y
Amenity Including noise, lighting, odour, smoke.	Officer: Damaris Broad

Noise

Public Protection have received complaints from eight separate households in the Westwells area about a low frequency noise in the area, the source of which may be the existing Data Centres. I have attached a briefing note from the Institute of Acoustics on Low Frequency Noise (LFN) for information.

I have visited properties in the area and have not been able to hear the noise. As the IOA briefing note states, variations in the hearing threshold allows LFN to be audible to an estimated 2.5% of the population, so although not everyone will hear the noise, it can be detectable and disturbing for some individuals.

A noise assessment has been made at one property in the area, and I am currently looking at the readings made.

In terms of the proposed data centre there is a very clear methodology for assessing noises from industrial sources, BS4142, and ARK has provided a BS4142 assessment by SWECO (65204515-007-SWE-ZZ-XX-T-U-000) to accompany the application, and an additional Technical Note from SWECO (65204515-007-SWE-ZZ-XX-T-U-0002). A document of the baseline noise surveys in August 2016, May 2019, May 2023 and Nov 2024 has also been provided.

Despite the complaints of LFN the data centre application must be considered in terms of BS4142, although it is concerning that some residents are experiencing low frequency noise that they find intrusive in their homes.

In response to SWECO Technical note:

Methodology and Impact levels:

It was discussed with ARK and SWECO whether measurement of similar plant could be used to extrapolate information on tonal elements of the equipment at the proposed site. Apparently as the equipment will be purpose built, this approach would not provide any useful information for this site. It is agreed that BS4142 objective methods for tonality should be considered at receptor locations. We also agree on the summary of BS4142 penalties for tonality.

We do not agree with the statement that there is no evidence that noise from the site would be tonal. The IOA briefing note states sources of LFN as ‘...generated by pumps, large fans, compressors, diesel engines and other rotary machinery, and electrical power transmission systems.’ Many of these sources are found at data centres.

BS4142 awards a penalty for tonal noise of 0 to 6dB, depending on the audibility. As it is not possible to make any tonal noise assessment from the proposed data centre, it is not possible to support SWECO’s position that a 3dB penalty should be added, there is no evidence for either 6dB or 3dB penalty. However, it is important to consider worst case scenario in the absence of any objective information, which would be a 6dB penalty added to the rating level.

The noise report demonstrates that at all receptors except for two, the rating level is below background. There are two receptors nearest to the proposed centre (Westwells and Moor Green) where the rating level needs further examination due to being closer to the background noise level. The addition of a +6dB penalty, representing worst case scenario would lead to rating levels of +3(Westwells) and +4 (Moor Green).

If a 3dB penalty is added for tonality, then the rating level becomes equal to background at Westwells and +1 at Moor Green.

BS4142 states: ‘A difference of around +5 dB is likely to be an indication of an adverse impact, depending on context’ and ‘The lower the rating level is relative to the measured

background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact depending on context.'

BS4142 advises in terms of assessing the context, the absolute level of sound should be considered. Where background sound levels and rating levels are low, it states that absolute levels might be as, or more relevant than the margin by which the rating level exceeds the background. The standard states that this is especially important at night.

The background noise levels at night are given in Table 12 of the SWECO report (dated May 2024) are given as LA90T 26dB at the nearest locations to the proposed development. This is classed as a low background sound level.

Table 12 of the SWECO report details the predicted noise level at Westwells Road (North) to be LAr,Tr 23dB and at Moor Green (South) be LAr,Tr 24dB.

If absolute levels are considered, with a partially open window for ventilation, which would reduce the noise by 10-15dB from outside to inside a property, the rating levels as stated in the report would be 8dB-13dB at Westwells Road (North) and 9-14dB at Moor Green (South) within properties at night, attributable to the proposed development.

If a character penalty of 6dB is added to the rating level for highly perceptible tonal noise at the receptor, which is the worst case scenario, the rating levels become be LAr,Tr 29dB at Westwells Road (North) and LAr,Tr 30dB at Moor Green (South), that is 14-19dB internally within properties in Westwells Road (North) and 15-20dB at Moor Green South at night.

Although BS8233 relates to anonymous noise such as transport noise, rather than noise with character such as industrial noise, guideline values are provided for bedrooms at night. The guideline value for bedrooms is 30 dB LAeq,8hour at night (23:00–07:00). The predicted absolute levels are at least 10dB below this level in all cases.

In this context the predicted internal noise levels at night are not a concern and Public Protection no longer have an objection to the proposal in terms of noise.

Exterior Lighting

The JCA report (9123.0800.000.010.JCARD0C.001.R06), dated the 04 October 2024 demonstrates that the lighting scheme will meet the requirements for environmental zone E2 in the ILP document "Guidance Notes for the Reduction of Obtrusive Light - Guidance Note 01:20. As such there are no objections regarding proposals for exterior lighting providing all is installed as per the proposals.

Contaminated Land

Officer:

Air Quality	Officer: Damaris Broad
The air quality assessment Reference: 3650-5r2 considers the use of emergency generators at the site which are the concern related to air quality. It is demonstrated that there will be negligible impact from their use and therefore there is no objection to the proposal regarding impacts on air quality.	
Recommendation:	
Conditions (if appropriate) 1) 2) 3)	

Please contact the Environmental Control and Protection Officer should you wish to discuss these comments.

