



Reference: Aldi Hedge End Retail Park

Project No: 2120326

Technical note

Response to EHO comments, email dated 18.3.24

Introduction

- This technical note is prepared in response to comments received from Senior Pollution Control Officer (SPCO, Mr Neil Scott) at Eastleigh Borough Council (EBC). The SPCO's comments are contained in an email to Mr Huckfield, Senior Planning Officers at EBC.

Responses to queries raised

- 1 Neil Scott [NS] SPCO wrote:

"For the assessment of noise impacts the background noise level obtained during the 2023 survey has been chosen as the reports author considers it robust. We would highlight that the 2021 and 2023 surveys show similar levels, except at night, when the 2021 survey shows lower levels. Given the similarity in daytime levels, we are concerned that adopting the 2023 night time levels will underestimate noise impact during sleeping hours, by comparing delivery noise impact against these higher background levels".

Keith Metcalfe [KM] response:

The noise report goes into some detail as to why the noise levels vary between the three surveys conducted at this site. I thought that this approach would provide clarity as to why the typical background noise climate, instead the SPCO uses the previous 2021 and 2022 noise survey results to somehow throw doubt on the most recent 2023 noise survey. It is clear that the lowest baseline noise levels (with reference to the comparison of background noise level in Figure 3) were measured in 2021. The commentary at paragraph 3.10 explains that the 2021 noise survey was carried out during a period of Covid restrictions and therefore the basis of those measured noise levels should be treated with some caution and uncertainty.

At paragraph 2.7 the noise report explains that the impact of noise from delivery activity at night is not best determined in the context of a BS 4142 type assessment whereby an external background noise level is compared to the external rating level of sound, when the receptor location would typically be inside bedrooms, where people are sleeping. Paragraph 2.7 explains that *"for deliveries that may occur during the night time periods the WHO Guidelines for Community Noise (GCN) offer the most relevant assessment criteria. This is because for noise that occurs at night it is the absolute level of noise that is the critical factor in relation to recognised sleep disturbance criteria"*.

Head Office

Sharps Redmore The White House, London Road, Copdock, Ipswich, IP8 3JH
T 01473 730073 E contact@sharpsredmore.co.uk W sharpsredmore.co.uk

Regional Locations South England (Head Office), North England, Wales, Scotland

Sharps Redmore Partnership Limited Registered in England No. 2593855

Directors: RD Sullivan BA(Hons), PhD, CEng, MIOA, MAAS, MASA; KJ Metcalfe BSc(Hons), MIOA; N Durup BSc(Hons), MSc, PhD, CEng, FIOA, MInstP, MASA, MAES; GJ King MIOA, MCIEH
Company Consultant: TL Redmore BEng, MSc, PhD, MIOA



Essentially it is not the difference between the external background noise level and external rating noise level that principally give rise to sleep disturbance inside, but short duration high level noise events, typically measured using the L_{Amax} parameter.

2 NS SPCO wrote:

“The survey location used in 2021 and 2023 is located closer to Upper Northam Road than the dwellings, and as such subject to higher traffic noise levels from the road, and higher L_{Amax} events. The short duration of the noise surveys means it is not possible to determine if the chosen background noise levels are truly robust and representative of noise conditions as experienced at the residents’ dwellings”.

KM response:

I am unclear as to what Mr Scott means by ‘truly robust’, particularly against a backdrop of the only noise survey data available is that provided by Sharps Redmore (SR). There is nothing unusual about carrying out a noise survey over a period of a single night, so long as the person carrying out the measurements believes them to be ‘typical’ and representative. It is only in the past 20 years or so that sound level meters have had the capability to automatically log noise data, with the equipment being left unattended. Traditionally a noise survey would be carried out by attended survey with percentile measurements determined by ‘eyeballing’ a needle on an analogue display. Again, the doubts being expressed by Mr Scott are entirely without technical evidence to the contrary.

What is reasonable to assume, in the context of the 2022 and 2023 noise surveys presented in the SR report, that the 2021 night time noise measurements are likely to have been influenced by the Covid 19 pandemic, with untypical patterns of human behaviour influencing the noise climate around them.

Whilst Mr Scott is happy to explain in his response that *“The survey location used in 2021 and 2023 is located closer to Upper Northam Road than the dwellings”*, he fails to highlight that the 2022 noise survey (located in a position comparable to the Goodlands Vale dwellings furthest from Northam Road), which was carried out at the request of another PCO at EBC, shows comparable background noise levels to those measured in 2023 closer to Northam Road. On this basis it can be reasonably concluded that the latest 2023 noise survey data is robust and representative of the noise climate at Goodlands Vale.

It must be remembered that SR (and any other acoustic consultant for that matter) would only be able to undertake a noise survey from an accessible location, either publicly accessible, or with permission of the landowner. The survey locations presented within the SR noise report were selected to be, as representative as possible, of the noise climate at the Goodlands Vales dwellings.

3 NS SPCO wrote:

“The BS4142 noise assessment assumes only one rating penalty for the delivery noise. The impact is also considered in terms of how average noise levels compare with World Health Organisation, WHO, advice. We would point out that the WHO standards referred to are for steady noise sources and not the type of irregular and impulsive noise that characterises deliveries. In our view adjustments should be applied to address the very different noise character under consideration here”.

KM response:

To clarify, the SR report presents assessments of both ‘average noise levels’ ($L_{Aeq\ T}$) and peak/maximum (L_{Amax}) noise levels. As explained above, in the context of this application, it is the predicted maximum/peak noise levels that are of most relevance to the determination of the noise impact on people indoors, from night time delivery activity. The assessment of ‘average noise levels’, can be a useful indicator of noise impact, albeit in the wider context.

It is a fair point for Mr Scott to raise in respect of the WHO guideline noise values, and their applicability to steady state noise sources. However, if one were to compare the predicted rating levels within the Table at Appendix C1 of the noise report with the WHO guidelines, the levels would still not exceed those guideline values.

Furthermore, as explained at paragraph 2.10 of the noise report, SR is aware of the ‘smoothing out effect’ of providing predicted delivery activity noise level in line with the 16 hour daytime and 8 hour night time WHO guideline noise values; preferring to counter this by providing predicted noise levels to a much shorter, and more stringent, one hour time base.

Either way, the SR noise assessment method of predicted delivery activity noise to a 1 hour time base (along with maximum/peak noise predictions for consideration of noise at night, in respect of sleep disturbance criteria) inherently builds in a degree of additional robustness/reasonableness.

4 NS SPCO wrote:

“A Quiet Delivery Scheme, QDS, is proposed. This provides advice for Aldi drivers, however it would not apply to drivers from waste collection companies (the noise impact of which is not assessed), nor is it possible to see how it would apply to other non Aldi employees e.g. hauliers / drivers”.

KM response:

The Aldi planning application is principally concerned with the efficient supply of produce to the Hedge End store. Hence the permitted timings of the collection of waste from the store could be reasonably controlled to the same hours as present.

It is perfectly reasonable for a QDS or other delivery noise management plan to extend to all deliveries to the site. Aldi has the power to ensure that all deliveries to their stores comply with the requirements of their planning permission. This is commonplace for such QDS/DNMPs at other stores nationwide.

5 NS SPCO wrote:

“The report references a ‘real world’ delivery being monitored and concluded to not be significant. We would highlight that the delivery noise levels were measured 5 metres from the lorry, and it is likely that the driver / operator would have been aware that they were being monitored. The measured noise levels are lower than those used previously to ‘predict’ noise impact, and which were reported at the time as being representative and based on real world measurements of several deliveries at other Aldi stores. In our view, we think it would be fair to conclude that the ‘typical’ levels used previously are more representative given they encompass a wider range of deliveries rather than a one off. Simultaneous measurements carried out in Goodlands Vale were in an open area and not at rear of the dwellings. The subjective remark that the delivery was not particularly audible needs to be taken in the context of the time, mid evening, when traffic noise levels from the M27 are still high”.

KM response:

This strikes me as a damned if you do, and damned if you don’t scenario. The option is available to measure ‘real world’ noise from deliveries in situ at the Hedge End store, as such direct noise measurements have been taken, and measured simultaneously at an accessible position in Goodlands Vale and at 5 metres from the delivery.

Instead of objectively explaining to the planning officer what Figure 6 of the SR noise report shows in respect of the measured delivery activity noise levels at this site, Mr Scott implies, with no evidence whatsoever, that the driver of the delivery behaved differently in his unloading activity, then he might have done in the absence of noise monitoring. This is total supposition.

Consultation comments made by professional Officers on technical matters should be objective, and, as appropriate, technical in nature. There is no place in a consultation response for an Officer to imply a set of circumstances may have occurred without any evidence. This is unreasonable.

The measurements delivery activity measurements in Goodlands Vale were, as outlined above, carried in the closest publicly assessable location to the rear of the closest properties. There is nothing unusual in this practice.

It is important to note that the measured maximum/peak noise levels, as presented within the SR report at Figure 6, are without any screening attenuation whatsoever, and still show measured levels below the WHO sleep disturbance criterion. The proposed 3 metre high fence (albeit subject to planning) would further reduce these measured noise levels, which are already shown, in the absence of any physical screening mitigation, to be indicative of low noise impact.

In respect of the comment on the subjective remark of our survey technician, this is simply reporting the findings of the survey. Of course, the issue of a noise source being audible is not the planning test. I am not aware that the M27 is visible from either measurement location, as such the state of the traffic and subsequent noise level contribution from this source during the survey cannot be quantified by SR, nor the SPCO.

6 NS SPCO wrote:

"The acoustic environment at the location is noisy, being dominated by road traffic noise, and we would highlight the advice in Planning Practice Guidance Noise which states, '...In cases where existing noise sensitive locations already experience high noise levels, a development that is expected to cause even a small increase in the overall noise level may result in a significant adverse effect occurring even though little to no change in behaviour would be likely to occur...'"

"Similarly, where the reporter advises that a change of 3dB is 'imperceptible' we would highlight that Planning Practice Guidance Noise advises, 'The subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. ...Some types and level of noise will cause a greater adverse effect at night than if they occurred during the day – this is because people tend to be more sensitive to noise at night as they are trying to sleep...'. In this case we would point out that it is proposed to extend deliveries into the sleeping hours, and that the nature of the noise generated by a delivery lorry unloading is notably different in character to that of distant road traffic noise".

KM response:

The findings of the SR noise assessment report, based on reasonable and robust assessment methodology and criteria are that the noise impact associated with the proposal to allow deliveries at night is low. This is well below the significant adverse impact that the NPPF seeks the avoidance of.

The widely accepted starting point for the assessment of noise from delivery activity is the assessment method contained in BS 4142:2014+A1:2019. Whereby the rating level of noise under consideration is compared to the existing background noise climate to obtain an initial indication of the impact, with context then being considered to derive the overall impact.

The noise climate at this site is dominated by noise from local and distant road traffic. BS 4142 allows the initial estimate of impact to be determined through numerical comparison, regardless of the noise sources that comprise the noise environment. With the numerical BS 4142 assessment at Appendix C3 showing that rating noise levels from delivery activity at night are below the existing background noise level at all times, it is considered highly unlikely that the inclusion of any contextual considerations in determining the overall impact would moderate the outcome of the assessment to giving rise to significant adverse impact.

In the 10 years since the issue of BS 4142:2014, I have not come across a single instance where the contextual consideration has moderated the initial numerical assessment outcome of low impact to significant (or even the lower threshold of adverse) impact.

7 NS SPCO wrote:

"The report references a 3 metre high acoustic barrier and includes the attenuation from this in its calculations of noise impact. Whilst we are supportive of additional attenuation, we are uncertain if this can be included as it may require planning permission in its own right. We would also always advise that the process by which the barrier was designed and selected be included in the report, so we can assess if it is the most practicable option. This is of course on the basis of all practical options having been considered in the round".

KM response:

The Aldi planning agent will discuss any mechanisms for securing consent for the 3 metre high acoustic barrier with the Planning Officer.

Attached as Figure 1 to this technical note is a data sheet for a 3 metre high acoustic barrier. This is the type of noise barrier Aldi has used elsewhere.

Keith Metcalfe BSc(Hons), MIOA

Director, 9th April 2024

APPENDIX A:

TECHNICAL DETAILS OF 3M HIGH ACOUSTIC GRADE FENCE

