

Altman, Rebecca

Subject: FW: [F/25/99169] Land adjoining 4 Brookfield, Providence Hill, Bursledon - Pollution Comments
Attachments: Applicant response to consultee comments - Noise, Air Quality and GCN (2).pdf

Sent: 19 May 2025 14:46

Subject: FW: [F/25/99169] Land adjoining 4 Brookfield, Providence Hill, Bursledon - Pollution Comments

Good afternoon Rebecca,

Please find our response in **blue** to the applicants' comments in **red** :

My original comments remain.

Air Quality

"We used ADMS Road v5.0.1.3. Regarding the CEMP, our air quality assessment includes the construction dust risk assessment, so any dust mitigation should reflect our recommendations. If it doesn't, the CEMP should be updated accordingly"

No further comments. Just requires a complete CEMP in due course.

Noise

- *After careful review of Hawkins Environmental noise report reference H4472 – NV – v1 dated April 2025, we have the following comments:*

The noise survey was conducted between the 21st and 22nd of March 2024 only including one night

and one day period. This is not considered as a representative period and not enough data to support

the noise calculations for this site. Additionally, there is only one noise survey location facing Providence Hill, The site is in close proximity to the M27 and noise data for the east side of the site would be important to consider and present. Paragraph 4.2 of the noise reports defines

Providence Hill

as the main source of noise but this needs to be backed up with noise data from the northeast part of the site"

A 24-hour noise survey is the typical duration for a site of this size. As per my initial comment one night is not enough data to support the noise calculations. I don't know where the ratio between the size of a site and the duration of the noise survey comes from but one day and one night is not a representative period and is not enough data to support the noise calculations.

Whilst it is acknowledged that the site is approximately 250m from the M27 and therefore the noise climate

clearly contains a contribution from the M27, onsite observations clearly indicated that the worst-case noise levels on site, where observed closest to the A27 Providence Hill. To prove the point, we measured noise levels at 13m from the centre line of the A27 to be 57.7 dB and 52.1 dB(A) during the daytime and night-time respectively. At the Windshear Crescent

development, where noise was measured adjacent to the M27, between our site and the M27, the measured noise level was 73.4 dB and 67.8 dB(A) during the daytime and night-time respectively. Using standard distance attenuation (which doesn't include the barrier effects of 2 the intervening buildings nor the noise barrier that was proposed as part of the development), we would estimate noise levels at the rear façade of the care home to be around 57 dB/51 dB during the day/night. Obviously, with the barrier and the finished construction of the Windshear Crescent development, I would suspect this to be lower. Furthermore, the noise assessment report for the Oakeley Vale Development also confirms that noise levels at a similar distance would be less than those measured adjacent to the A27. For example, the noise measurements at Measurement Location 6 (which is at a similar distance from the A27 as the care home) notes "Noise from the A27 dominant although M27 audible when no passing traffic on A27" and measured a daytime noise level of 56.7 dB daytime. Obviously, if additional measurements are required, we would be happy to conduct these (although these could easily be conditioned if required); however, as the above suggests, we are confident that any measured noise levels to the rear of the site, would be no higher than those measured adjacent to the A27. Therefore, the mitigation already suggested in our report should be sufficient for the whole site. The minimum required is to have two survey monitoring locations running simultaneously to understand the noise across the site and the difference between both sides of the site. These monitoring locations should be located at the proposed facades and record octave or 1/3 octaves information.

- Figure 4.1 shows the monitoring location almost in line with one of the facades of the residential cottages this does not match to the distances in the last paragraph of section 5.1. Is the monitoring location in the figure correct?* Figure 4.1 is indicative only and should not be scaled from. The distances noted in section 5.1 are correct. No further comments
- Nighttime LAmax calculations/assessment is not present in the report. Can you please provide details on this or explain why BS8233:2014 LAmax criteria is not shown in point 6.2.2 as per daytime LAeq in table 6.2. Without calculating LAmax how the consultant supports the glazing recommendations achieving the BS8233:2014 LAmax criteria for bedrooms?*

As noted in Section 6.2.2, we used the Simplified Calculation Procedure in Annex G of BS 8233. The highest LAmax measured was 81.6 dB; the 10th highest (the design criterion) was 69.0 dB. Using the Simplified Calculation Procedure in Annex G of BS 8233, we subtract 33dB from the measured 69 dB – this leaves 36 dB. As this is more than 5 dB lower than the recommended level contained within BS 8233 of 45 dB; therefore, suitable LAmax noise levels will be achieved within the dwellings with standard double glazed windows. Again having only one night of data increases the levels of risk significantly. Now it's the only time to state the size of the site and the sensitivity, why using the simplified calculation procedure that doesn't even take into account noise spectrum information? Noise spectrum information is critical to make sure the trickle ventilators and glazing proposed are effective in meeting internal noise criteria. This is not sufficient information to base a noise assessment for this site. **Annex G of BS 8233 states 30dB for standard glazing and attenuated trickle vents not 33dB as used above.**
- The report states "site cannot rely on the windows being opened for ventilation. Therefore, an alternative source of ventilation is required" on point 6.2.3 but then on table 9.1 states "Based on the onsite noise level, any ventilation system should be appropriate". Does this mean a passive ventilations system (such as trickle ventilators) is appropriate?*

Trickle ventilators are appropriate. The site is too loud to rely on windows to be opened for ventilation – this is now prohibited in Part F of the Building Regs anyway. Under the ventilation systems outlined in Part F, any system would be appropriate, which includes passive systems. Trickle ventilators is one thing (Part F), site is too loud to rely on windows to be opened for ventilation is another one (Document O). I would suggest looking at a MVHR system.

In summary I still believe more information is required to fully understand the impact of noise in all facades of the site. A noise survey over a representative period is required at suitable/meaningful locations this survey should include spectrum information to feed into the noise calculations and due to the size and sensitivity of the site a noise model is highly recommended.

Thank you

Andre

Andre Pires
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