

Thank you for consulting Environmental Health on the above application for 44 dwellings with access, open space, landscaping and associated works. I have reviewed the application in terms of the potential impact of noise on future occupiers of the site. Any comments on air quality/contamination will be provided by my colleague Jon Driver.

My main concern regarding this proposal relates to the potential for future occupiers to experience adverse impacts on health and quality of life due to noise from the adjacent A27, and to a lesser extent from mechanical plant located at the Shell garage to the west. In particular I am concerned that it may not be possible to sufficiently mitigate noise impacts without putting future occupiers at risk of overheating.

The application includes a noise assessment produced by WYG dated 28/06/19 which demonstrates that the site is affected by high levels of road traffic noise from the adjacent A27. The results of noise monitoring show noise levels fall within the 'high' noise risk category of ProPG's 'Initial Site Noise Risk Assessment' both during the day and night which puts future occupiers at a high risk of adverse impact from noise. ProPG's advice on high (and medium) risk sites states that *"there is an increased risk that development may be refused on noise grounds. This risk may be reduced by following a good acoustic design process demonstrated in a detailed ADS (Acoustic Design Statement)... As noise levels increase (from low to high risk categories), the site is likely to be less suitable from a noise perspective and any subsequent application may be refused unless a good acoustic design process is followed and is demonstrated in an ADS which confirms how the adverse impacts of noise will be mitigated and minimised, and which clearly demonstrate that a significant adverse noise impact will be avoided in the finished development."*

The noise assessment proposes a scheme of mitigation to protect future occupiers of the site from noise. This scheme relies on windows being kept closed to achieve satisfactory acoustic conditions as defined by BS8233:2014 "Guidance on sound insulation and noise reduction for buildings" and an alternative means of ventilation being installed which removes the need to open windows for ventilation. However, there is no discussion on overheating so it is not clear what the impact of overheating will be on indoor ambient noise levels. If the mechanical ventilation system is to be relied upon to provide ventilation during periods of overheating, no information has been provided on a suitable system to be installed, the potential noise impact of such a system on internal noise levels and the noise assessment does not demonstrate that it will be possible to sufficiently protect future occupiers from such internally created noise.

Whilst the noise assessment follows some of the principles of ProPG, information I would expect to see, for example Stage 2: Element 1 - Good Acoustic Design Process and Element 4 Assessment of Other Relevant Issues, is missing. I am concerned that the failure to carry out a full assessment, together with no consideration having been provided on the impact of ventilation and overheating on internal noise levels, demonstrates that good acoustic design has not been followed.

As a good acoustic design process has not been demonstrated I recommend that permission is not granted at this time. The applicant needs to provide an acceptable assessment of the impact of ventilation and overheating on internal noise levels and further information to demonstrate that a good acoustic design process has taken place (as part of the broader requirement for good design set out in the NPPF).

In the event that you should be minded to grant permission, please contact me for further details on conditions that should be attached to minimise the risk of adverse impact of road traffic noise on future occupiers of the proposed development.

To assist the applicant, further details on the information required to address my concerns is given below:

1) The acoustic report provides long term averages of monitoring that took place, but fails to provide the full data set for the site (or more short term averages of the data set) or information on how many noise events at night exceed 60dB L_{Amax,F}.

2) The application contains no information on overheating or how the dwellings will be ventilated during periods of overheating. I recommend that noise levels, overheating and ventilation are addressed by following the assessment method provided in the "Acoustics Ventilation and Overheating, Residential Design Guides" (ANC, 2020) which whilst only recently having been published, has been available in draft form for some time. Depending on the conclusions of the initial part of this process, this may require a separate overheating assessment for the proposed development to be carried out in accordance with CIBSE TM59. If the event, after exploring all options to achieve good acoustic design, that windows are required to be kept closed to achieve an acceptable internal noise climate, then the provision of an alternative form of natural ventilation will be required to aid thermal comfort. If this is impracticable then a MVHR system with fully automated summer bypass may be acceptable and details of a suitable system to be installed should be provided together with information on the future maintenance of such a system.

3) The noise assessment should be updated to include all 4 elements of a ProPG stage 2 assessment.

Please do not hesitate to contact me if you have any queries.

Regards

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