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Our ref: 31538.2v1  
22 April 2014

Dan Weaver  
Pegasus Group

**Via E-mail to: [dan.weaver@pegasuspg.co.uk](mailto:dan.weaver@pegasuspg.co.uk)**

Dear Dan

**Re: Green Pits Lane, Nunney – Reponse to EHO Comments**

Further to our recent correspondence, I have spoken to Graham Blanksby, Environmental Health Officer at Mendip District Council, regarding the above site. This relates to Mr Blanksby's email to Matthew Williams of 7 April 2014, specifically to comments regarding noise associated with the truck-stop to the south of the proposed development site.

Mr Blanksby's email states that the noise measurements relating to the truck-stop presented in our report (Ref 31538.1v2, dated February 2014) were undertaken over a limited period (2-hours) and at a height not representative of proposed dwelling bedrooms. In fact, unattended noise measurements were undertaken over a continuous 8-hr night time period at a single location at the site boundary to the truck-stop, and this was supplemented by attended SEL (sound event level) measurements over a 2-hour daytime period, which comprised a set of short-term noise measurements coincident with individual HGV events at the truck-stop. The precise location on the boundary for the attended measurements was varied to be as close as possible to individual HGV events. The duration of the attended survey was not pre-planned, rather measurements were taken for a sample of HGV events until it was considered that an adequate amount of data had been acquired, i.e. sufficient samples to demonstrate the typical range of noise levels for these events.

Further, as stated in the report, all the above measurements were undertaken with the microphone elevated above the level of the truck-stop hardstanding to provide a clear line-of-sight over this area. As such, whilst not at the *actual* height of proposed bedrooms, the measurements were at a *representative* height of these windows.

Mr Blanksby's email also suggests that a BS 4142 type assessment would be appropriate for consideration of the truck-stop noise. My opinion is that the BS 4142 method would not be appropriate in this situation, not least because this is based on assessing a specific noise source by comparison to prevailing background noise levels and, at this site during the night-time, just the ambient  $L_{Aeq}$  noise from A361 road traffic is frequently greater than 10dB above the corresponding  $L_{A90}$  noise level. As such, using the BS 4142 method, a specific source could be shown to be a potential source of complaints even whilst being at a level lower than the general road traffic noise. Because of this it is likely that a BS 4142 would provide misleading conclusions regarding truck-stop noise, when in reality the truck-stop noise is less significant than the general road traffic noise, particularly in terms of  $L_{Aeq}$ .

Over the telephone, Mr Blanksby noted that the truck-stop could be perceived as a non-anonymous noise source, which would require it to be treated differently to anonymous road traffic noise in an assessment of necessary mitigation. I would accept that in certain circumstances this may be correct, however I would respond by re-iterating the subjective comments made in our report that the character of the truck-stop noise, of HGVs manoeuvring slowly on the hardstanding, is very comparable to the general road traffic noise in proximity of the site, which is of vehicles, including a good proportion of HGVs, slowing into and accelerating out of the roundabout adjacent to the truck-stop. It is considered that this substantially limits the perceived distinction between the two noise sources.

It was confirmed to Mr Blanksby over the telephone that the  $L_{Aeq}$  noise level based on 2 HGV events over a 5-minute period is 54dB, with the 43dB quoted in our report relating to a 1-hour period. However, as the night-time assessment has been more robustly based on  $L_{Amax}$  noise levels, the difference in predicted  $L_{Aeq}$  does not affect the recommendations and conclusions in our report.

It was discussed and noted that the applicant's control extends only to the foot of the embankment between the site and the truck-stop. Therefore, an acoustic fence of ~2m in height relative to the truck-stop, as suggested by Mr Blanksby, is not a straightforward measure, as this would require a fence of ~4m from site level. It was alternatively suggested by Mr Blanksby that truck-stop noise could be controlled by way of careful orientation of developed buildings to avoid bedrooms directly overlooking the truck-stop. This could potentially be achieved via orientation of gable ends towards the truck-stop along this part of the south boundary of the site.

To assess the need for such mitigation further, it was discussed that daytime noise should be considered in terms of levels within outdoor amenity space (i.e. rear gardens) and night-time noise should be considered in terms of  $L_{Amax}$  noise levels at upper-storey bedroom windows.

For daytime noise, based on the logarithmic average of all measured SEL noise levels for HGV events at the site boundary, and assuming a highly pessimistic case that there is one HGV event every 2-minutes, the overall truck-stop noise level would be 55dB  $L_{Aeq}$ . Accounting for a nominal 5dB acoustic screening correction at ground level of the site relative to ground level of the truck-stop, this will reduce truck-stop noise levels to 50dB  $L_{Aeq}$ . BS 8233 recommends that it is desirable that the external noise level in gardens does not exceed 50dB  $L_{Aeq,T}$ , with an upper guideline value of 55dB  $L_{Aeq,T}$ .

For night-time  $L_{Amax}$  noise, it is noted that our report recommended adequate glazing and ventilation solutions to control internal  $L_{Amax}$  noise levels to 45dB, based on an external  $L_{Amax}$  noise level at the site boundary of 76dB. In fact, based on the attended measurement samples at this boundary, the upper  $L_{Amax}$  noise level was found to be 67dB. The 76dB level was recorded as the upper  $L_{Amax}$  noise level from the 8-hr unattended measurements. Whilst it is not possible to confirm the source of the highest noise levels as these measurements were not attended, the higher level was used to form a highly robust assessment.

Whilst  $L_{Amax}$  noise levels would be higher than 45dB within bedrooms from some truck-stop events with windows open, it is noted firstly that the World Health Organisation advises that 10-15 occurrences per night that exceed the limiting  $L_{Amax}$  maximum noise level may be considered acceptable, and secondly that occupants in this area of the site would need to keep windows closed regardless of potential truck-stop noise in order to control noise from general road traffic to a suitable level, i.e. based on earlier comments, with windows open noise from the truck-stop would be of lesser significance, yet of similar character, compared to the general road traffic noise.

It is noted that the above assessments also assumes that all HGV events occur in essentially the same location, whereas in reality they will be more spread across the truck-stop area, and also that noise levels are based on those at the site boundary, excluding the additional benefit of distance back to proposed buildings.

In summary, it is considered that the findings and recommendations of our report are robust and that there is no requirement for additional noise mitigation measures over-and-above those recommended therein.

I trust that the above is clear and satisfactory. Please call if you wish to discuss further.

Yours sincerely  
for Hepworth Acoustics

A handwritten signature in black ink, appearing to read 'Graham Bowland', written in a cursive style.

Graham Bowland BSc MIOA  
Principal Consultant