

Overall - It should be noted that in our model we are currently assuming hard ground, comparable to the site, in all surrounding areas. However, if we consider surrounding area (excluding the site) as soft ground, due to the parks and gardens, the received noise levels would be expected to reduce by a further 2 dB.

2. The noise assessment should include impacts on neighbouring gardens.

We have reviewed the model and it calculates that the specific noise levels within the garden would be 38 dB(A).

3. Was the scaffold company operational during the unattended monitoring period?

We believe there were some enabling works, but in general were not operating.

4. What is the background noise level between 6am and 8am to the rear of properties along Clock House Road?

During this time the typical background noise level is 40 dB(A). This would not be considered a significant difference and even considering this isolated period the threshold for an adverse impact would not be reached.

5. In regards the correction for impulsivity, what mitigation will be provided to ensure there is no adverse impact? I would consider the noise from loading activity to be clearly audible against the residual noise levels, and so a 6 dB(A) correction more reasonable.

As the calculated specific noise level of 39 dB(A) is lower than the background noise level of 42 dB(A), the background noise level will provide a degree of masking. This is supported by the Note 1 Section 9.2 of BS 4142 (*NOTE 1 The prominence of tonal or impulsive sound from a source can be masked by residual sound. In many cases the amount of masking varies as the residual sound changes in level and possibly character. The source's tonal and/or impulsive characteristics could also vary with time.*) We have also witnessed the unloading/loading methodology adopted by the site, which incorporates a palletised system that significantly reduces the impulsive events that would be typically associated with traditional methods of unloading/loading scaffold vans. However, this does not completely remove the impulsivity factor and therefore we believe that a 3 dB penalty is appropriate.

6. No intermittency – the nature of loading scaffold poles onto vehicles is unlikely to be continuous, whilst vehicles might be loaded more intensely at certain times of day, they will be free to load and unload intermittently at any time of day as demand dictates. I would therefore suggest an intermittency correction should be applied.

Our calculations assume constant operations. If the operation would be considered intermittent, then a time correction would then need to be applied. Intermittency correction are more commonly applied to steady state sources that have distinct on / off periods over the reference period.

7. Uncertainty – further narrative is required in regards the relevance of levels measured at another scaffold site. How many vehicles an hour are loaded there? How are they loaded? How are they stored?

The process was measured during operation undertaken by the same operator and we have been informed that the same processes will be used at Churchfields Road. As calculations assume constant operations this would be considered a worst case assessment. I/e it assumes a constant stream of deliveries requiring loading/unloading of scaffolding.

8. What consideration has been given to LMAX levels?

BS 4142 does not consider maximum noise levels and the penalties applied would account for instantaneous events. However, we have reviewed the measured maximum noise levels based on WHO community noise guidance and ProPG on sleep disturbance and the calculated

external façade noise levels (LAFmax) is 58 dB. Considering a partially opened window, the internal noise levels would be expected to be 43 dB(A). According to WHO and ProPG, this is unlikely to cause a disturbance to sleep. This assessment would only be considered relevant between the 1 hour of operation in the morning, 06:00 to 07:00. There would not be considered an appropriate LAFmax criteria for operation during the day time and therefore the ambient noise level should only be considered.

9. The assessment should consider noise from vehicles exiting the site early morning.

We have considered a 32 tonne vehicle with a maximum noise level of 77 dB(A) at 10 m. This vehicle would be considered a worst case assumption for a typical scaffolding vehicle. The vehicle is assumed to arrive / depart site 4 times an hour.

10. Are reversing alarms used?

A managed solution will be in place such that no reversing alarms will be necessary.