

Comments On The Applicant's Response To Written Representations by William David Moore

On 10th October 2023, I submitted a 33 page [Written Representation](#) which addressed the noise and vibration report. The document contained 16 sections. The responses the applicant has chosen to make to written representations submitted by those interested parties who registered as individuals, seem to be contained within [Applicant's Comments on Written Representations \[Part 4 of 4 Residents Businesses\]](#).

I have generally included a brief, non-exhaustive summary of each section of my written representation, followed by the applicant response which most closely matches with that section. I have not included the left-hand "Matter" column, which contains the applicant's stated summary of representations, because those are not my summaries. In many cases, I do not regard the applicant's comments in the right-hand "Applicants Response" column as a meaningful response to my written representation. Where appropriate, I have engaged with the applicant's response.

I also read a written statement at the second Open Floor Hearing (OFH2). I have submitted that to the examining authority as a separate document.

Catastrophic Foundational Failure

My written representation contained a section titled “Catastrophic Foundational Failure”. This section explained that because no attenuation corrections have been applied to the sound of train pass bys measured at NMP4, the report’s current ambient sound levels at the receptors are wildly overstated. The report states the receptors’ current ambient sound levels as if trains are passing a few metres away, as they were at NMP4’s location. However, the receptors are a median distance of ~333 metres away from the railway line.

The applicant’s response is: “As set out in Table 10.1 of the ES Noise and vibration chapter, the noise monitoring methodology has been detailed within the technical note NTT2814 –Hinckley Survey Method Statement_Issue_P02 (document reference: 6.2.10.5, APP-184), which has been submitted to and agreed with Blaby District Council and Hinckley and Bosworth Borough Council – in both cases it was agreed by suitably qualified technical officers.”

I don’t consider the applicant’s comment a meaningful response to my written representation.

Lack of Any Rating Penalty to Projected Specific Sound

My written representation contained a section titled “Lack of Any Rating Penalty to Projected Specific Sound”. This section explained that, as in the noise reports of other proposed rail freight interchanges, in the absence of any penalties for impulsive, tonal or intermittent characteristics, there should be a +3 dB penalty due to “other sound characteristics”.

The applicant’s response is: “A detailed reasoning behind the adopted character corrections has been included in paragraphs 10.157 to 10.161 and Tables 10.39 to 10.42 of the ES Noise and vibration chapter, including corrections ranging between 0 and +10, dependant on scenario. Paragraph 10.288 rationalises the removal of character corrections for the With Mitigation assessment.”

The referenced paragraphs and tables do not apply or even consider a penalty due to “other sound characteristics” in the absence of penalties for impulsive, tonal or intermittent characteristics. This does not address the point I made in my written representation or the evidence I provided to support that point.

I don’t consider the applicant’s comment a meaningful response to my written representation.

Improper Application of Impulsive and Tonal Penalties to Projected Specific Sound

My written representation contained a section titled “Improper Application of Impulsive and Tonal Penalties to Projected Specific Sound”. This section explained that the report does not disclose the method it has used to allocate rating penalties and that applying the method disclosed and used in [Paragraph 13.256 of The West Midlands Rail Freight Interchange Environmental Statement On Noise and Vibration](#) results in far higher rating penalties.

The applicant’s response is: “A detailed reasoning behind the adopted character corrections has been included in paragraphs 10.157 to 10.161 and Tables 10.39 to 10.42 of the ES Noise and vibration chapter, including corrections ranging between 0 and +10, dependant on scenario. Paragraph 10.288 rationalises the removal of character corrections for the With Mitigation assessment.”

This does not address the points I made in my written representation or the evidence I provided to support those points. It simply lists paragraphs in the report, paragraphs which I had read and to which I was responding in my written representation.

The applicant’s method still hasn’t been disclosed. The applicant does not disclose any detailed reasoning behind its allocated rating penalties, statements are made without any methodological or numerical justification.

The applicant has not responded to the highlighting of the method used in the noise report of another rail freight interchange, or the difference between the results obtained from applying that method (using the report’s own sound levels) and the much lower, unsubstantiated rating penalties allocated in the applicant’s report.

I don’t consider the applicant’s comment a meaningful response to my written representation.

Wrongful Expunging of Saturday Night-time Sound Measurements

My written representation contained a section titled “Wrongful Expunging of Saturday Night-time Sound Measurements”. This section provided evidence that measured Saturday night-time noise levels should not have been expunged and that Sunday night-time train pass bys are structurally higher.

The applicant’s response is: “Paragraphs 10.106 to 10.108 of the ES Noise and vibration chapter (document reference: 6.1.10, APP-119) fully discuss the noise survey results and consider whether the Saturday night measured noise data at NMP4 is considered representative of weekend night-time conditions.”

This does not address the points I made in my written representation or the evidence I provided to support those points. It simply lists paragraphs in the report, paragraphs which I had read and to which I was responding in my written representation.

I don’t consider the applicant’s comment a meaningful response to my written representation.

Highly Misleading Reference to Relevance of Absolute Sound Levels (Context Section)

My written representation contained a section titled “Highly Misleading Reference to Relevance of Absolute Sound Levels (Context Section)”. This section explained that the inclusion of Paragraph 10.174 is highly misleading and that the report should not have relied upon it at all.

The applicant’s response is: “The approach to the consideration of context is in line with that of other similar developments such as East Midlands Gateway, where “WHO Guidelines for Community Noise (1999)”, “British Standard 8233:2014 Guidance on sound insulation and noise reduction for buildings” and changes in ambient noise level were all considered.”

This does not address the point I made in my written representation or the evidence I provided to support that point. The report’s inclusion and reliance upon Paragraph 10.174 is not justified by any of the three documents the applicant has listed. [ES Appendix 10.8 East Midlands Gateway – Rail Freight Terminal – Noise Assessment](#) does not include an equivalent of Paragraph 10.174.

I don’t consider the applicant’s comment a meaningful response to my written representation.

Use and Misuse of Context

My written representation contained a section titled "Use and Misuse of Context" which emphatically objected to the report's approach to contextualisation. Principally: using the misleading impression created by the wrongful inclusion of Paragraph 10.174, having background sound levels supplanted by stated ambient sound levels along with the lack of context given to those ambient sound levels.

The applicant's response is: "The approach to the consideration of context is in line with that of other similar developments such as East Midlands Gateway, where "WHO Guidelines for Community Noise (1999)", "British Standard 8233:2014 Guidance on sound insulation and noise reduction for buildings" and changes in ambient noise level were all considered."

My written representation didn't object to the report considering "WHO Guidelines for Community Noise (1999)" or "British Standard 8233:2014 Guidance on sound insulation and noise reduction for buildings".

In case of East Midlands Gateway, the daytime rating levels are compared with the daytime background levels. The rating levels are meaningfully below the daytime background levels during all wind conditions at all NSRs and therefore no adverse effects are expected.

Meanwhile, in this case, the (understated) daytime rating levels are compared with the daytime background levels. The rating levels are far higher than the daytime background levels, leading to major adverse effects. The report then swaps out background levels and swaps in (overstated) ambient levels. Rating levels 18 dB above background are then immediately managed down to minor adverse effects. The report appallingly fails to distinguish between the brief, sporadic nature of train pass bys and the projected noise. Noise from train pass bys wouldn't mask the relatively continuous 18 dB above background industrial noise at all. The change would be extremely negative.

In case of East Midlands Gateway, the night-time rating levels are compared with the night-time background levels. The current ambient sound level is mentioned once: to deduce that the hotel windows likely attenuate by at least 30 dB when closed because the hotel's internal sound requirement is 30 dB or below and the ambient level outside was measured as 60 dB. This attenuation is then used for a noise induced awakening calculation for train pass bys. That is the only mention of the current ambient sound level. Ambient sound levels are never used to supplant background levels and no attempt to calculate a change in ambient sound levels is ever made.

Meanwhile, in this case, the (understated) night-time rating levels are compared with the night-time background levels. The rating levels are far higher than the night-time background levels, leading to major adverse effects. The report then swaps out background levels and swaps in (overstated) ambient levels. Rating levels 18 dB above background are then immediately managed down to minor adverse effects. The report appallingly fails to distinguish between the brief, sporadic nature of train pass bys and the projected noise. Noise from train pass bys wouldn't mask the relatively continuous 18 dB above background industrial noise at all. The change would be extremely negative.

The report's context section is nothing like the context section of East Midlands Gateway's noise report. It is surreal to see the applicant claim it is.

I would add that the applicant's method statement says the operational noise assessment will compare projected operational noise against background levels, not against ambient levels. Yet the report subsequently makes its comparison against background levels functionally irrelevant to the outcome of its assessment by having those results supplanted by a comparison against ambient levels. The method statement lists three potential uses for ambient sound levels and comparison against operational noise isn't one of them. It seems the applicant's view of the method statement is rather selective.

Again, the report's context section is facilitated by the use of two sets of incorrect numbers: wildly overstated ambient sound levels and understated rating levels. Once these failures are rectified, the report's "context" will be not just incorrect and inappropriate but also officially obsolete.

Demonstrable Overstatement of Current Freight Train Passes

My written representation contained a section titled “Demonstrable Overstatement of Current Freight Train Passes” which explained that the report hugely overstates the number of current freight train pass bys on the railway line during a typical weekday, which means it overstates the current sound due to train pass bys and therefore understates the projected increase in sound.

The applicant’s response is: “Paragraph 10.207 of the ES Noise and vibration (document reference: 6.1.10, APP-119) chapter states that the assumed existing train movements have been confirmed by the project Rail Consultant.”

This does not address the points I made in my written representation and or the evidence I provided to support those points. It simply lists a paragraph in the report, a paragraph which I had read and to which I was responding in my written representation.

I don’t consider the applicant’s comment a meaningful response to my written representation.

Subsequently, under questioning by the examining authority, the applicant’s representative acknowledged that the report is based on timetable listings.

This confirms that my written representation was correct and the applicant has hugely overstated the number of current freight train pass bys on the railway line during a typical weekday. The report includes every single timetable listing of freight trains which run only when required, disregarding how many actually run during a typical weekday.

In response to other written representations on train noise, the applicant has written as though train movements are homogeneous. However, for the purposes of a noise assessment, that is most definitely not the case. A freight train pass by generates many multiples of the sound energy generated by a passenger train pass by so overstating freight trains is particularly significant.

As I explained in my written representation, the applicant hasn’t conducted an assessment for current and projected weekend daytime and night-time train pass bys, which would lead to far larger changes in sound levels. The applicant did not respond to this point.

As I explained in my written representation, the applicant’s impact scale in Paragraph 10.41 and shown in Table 10.9 is at odds with the significance assessment included within the train noise assessment of [Tables 8.3-8.5 Northampton Gateway - Rail Freight Interchange](#), which is based on a combination of the change in noise exposure and the resulting noise exposure. For example: a daytime SOAEL of 65 dB, a night-time SOAEL of 55 dB, a resulting exposure above SOAEL being a significant adverse impact and an increase of 5 dB being required for this increase to be a major adverse impact. The applicant did not respond to this point.

Construction and Construction 'Mitigation'

My written representation contained a section titled "Construction and Construction 'Mitigation'".

The applicant's report stated in Paragraph 10.130: "The unmitigated effect of construction noise is likely to be a temporary, major adverse at worst for NSRs, based on construction taking place close to NSRs. However, for most receptors, for the average case scenarios, the noise levels are predicted to be below the criterion of 65 dB, resulting in a temporary, minor adverse effect. For NSRs 1, there is predicted to be slight exceedance of the criterion resulting in a temporary, moderate adverse impact."

The applicant's report then stated in "Table 10.65 - Summary of effects" that the construction noise would be a **major adverse effect**. This isn't surprising because the worst case predicted figures were up to 90 dB at NSRs. This summary of effects clearly wasn't just based on the average case because, as Paragraph 10.30 states, the average case effect was at most a moderate adverse impact. It was clearly based on construction occurring closer to the NSRs and those were figures which needed to be mitigated.

The first part of the applicant's response is: "The ES Noise and vibration chapter (document reference: 6.1.10, APP-119) adopts a standard approach for assessing "average case" and "worst case" construction noise levels. Only one NSR is predicted to have a significant adverse effect during two phases without mitigation."

I presume this statement is about NSR 1, based purely on the average case, which is not what the report's summary of effects was based on.

The applicant's response continues: "The worst case assessment shows some much greater noise levels in some phases at some NSRs prior to mitigation. In each case, the actual activity generating the noise levels is likely to be of a short duration and localised. Given that the worst case assessment assumes that stages 1, 2 and 4 could take place within 5m of the DCO limits, in many cases the activity simply will not take place as close as assessed. Notwithstanding this, the framework CEMP incorporates a range of noise control techniques and strategies to reduce noise, many of which are referenced in "British Standard 5228:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites parts 1: Noise" as effective noise control measures."

The applicant seems to want to push a more binary choice between taking an average case or an inherently unrealistic worst case, with the applicant now favouring the average case. [The West Midlands Rail Freight Interchange Environmental Statement On Noise and Vibration](#) gave a range between two figures for each proposed phase of construction.

The report gives no numerical basis at all for the reduction from major adverse to between minor and moderate adverse significance. In the absence of any lower predicted numerical values, the predicted numerical effect should be considered unchanged. The reduction from major adverse to moderate and minor adverse seems purely subjective and unsubstantiated. In making this subjective adjustment, there's no evidence the report properly considered factors included in BS 5228's "6.3 Issues associated with noise effects and community reaction". These factors include: attitude to the site operator, noise characteristics (e.g. impulsivity), duration of site operations and existing ambient noise levels.

Assessment of Operational Maximum Noise Levels

My written representation contained a section titled “Assessment of Operational Maximum Noise Levels”. This section explained that the report does not disclose the methodology which led to the thresholds of its “magnitude of effect” scale in Table 10.8 and that there’s no indication the report has considered the number of container placements and spreader impacts, despite there likely being very many of them during a night.

The applicant’s response is: “The number of individual container placements and spreader impacts have been assessed against a maximum noise level not typically to be exceeded, irrespective of how many events there are.”

This is rather opaque. I think “The number” at the beginning of this response must refer to the LAFmax values rather than a number of container placements and spreader impacts in a night, given the response adds “irrespective of how many events there are”.

This indicates the report is not considering the number of container placements and spreader impacts there may be during a night-time period. The methodology behind the report’s “magnitude of effect” scale in Table 10.8 still hasn’t been disclosed. At the moment there’s nothing justifying the “magnitude of effect” scale in Table 10.8 other than the applicant’s declaration. I gave the applicant the opportunity to change that but so far it hasn’t been taken.

As the assessment is of operational maximum noise levels, potential maximum noise levels from off-site train movements haven’t been considered. The applicant did not respond to this point.

Window Attenuation

My written representation contained a section titled “Window Attenuation”. This section examined the assumed window attenuation in the applicant’s report.

The applicant’s response is: “The 15 dB reduction is taken from “British Standard 8233:2014 Guidance on sound insulation and noise reduction for buildings”, which is based on a partially open window providing background ventilation and, as such, is a reasonable assumption to take.”

As I explained in my written representation, BS 8233 makes clear that the level of attenuation due to a partially open window is contingent upon a number of factors which can significantly reduce attenuation. By insisting on a 15 dB reduction, the applicant is gambling on all of the following being true at all NSRs during all time periods:

That no NSR would ever have any window types which would result in lower attenuation.

That no NSR would ever have a window more than slightly open due to occupant choice, or to obtain rapid or purge ventilation, all of which would result in lower attenuation.

That no NSR would ever receive noise due to the proposals containing frequency content which would result in lower attenuation.

These are not a reasonable series of gambles for the applicant to make. Unsurprisingly, the [East Midlands Gateway – Rail Freight Interchange](#) noise report and the [Northampton Gateway - Rail Freight Interchange](#) noise report did not make those gambles and they assumed a partially open window would lead to a 12 dB reduction of the sounds projected to be caused by such proposals. I reiterate that the applicant’s report should have followed suit.

Burbage Common & Woods

This section simply set the scene at Burbage Common & Woods, highlighting that the monitoring at NMP3 - in extremely close proximity to the railway line - contains the sound of extremely close proximity train pass bys which unsurprisingly caused large spikes in measured Leq values during those periods when trains passed by.

The lack of a direct response from the applicant to this section is fine, I merely highlighted that the circumstances at NMP3 are very similar to those at NMP4.

Lack of Attenuation Corrections at Burbage Common & Woods

This section set out the report's wrongful behaviour regarding Burbage Common & Woods, which follows the same pattern as the behaviour I objected to in earlier sections of my written representation, principally:

1. Not attenuating the sound of train pass bys measured at NMP3 to the NSR location (NSR 19), leading to an overstatement of current ambient sound levels at NSR 19 because trains aren't passing a few metres away from the NSR location. (as in "Catastrophic Foundational Failure). In this case, at NSR 19, the sound of train pass bys would be reduced not just by distance but also topography as the railway line is in a cutting as it passes near the bridge which forms a barrier and reduces the sound of train pass bys on the Common.
2. Rating penalties which appear too low. (as in "Improper Application of Impulsive and Tonal Penalties to Projected Specific Sound")
3. In the absence of any penalties for impulsive, tonal or intermittent characteristics, not adding a 3 dB penalty to predicted specific sound due to "other sound characteristics". This refers to the post-mitigation assessment. (as in "Lack of Any Rating Penalty to Projected Specific Sound")
4. Applying the report's incorrect and inappropriate "context" to the operational noise assessment, leading to rating levels 19 dB above background immediately being managed down to minor adverse effects. (as in Use and Misuse of Context")

These points are sufficiently covered by other sections so the lack of a direct response from the applicant to these points is fine, I merely highlighted that they also apply to the assessment at Burbage Common & Woods.

I made some rather more nuanced points in this section regarding the choice of Burbage Common's NSR location along with explaining why not attenuating the sound of train pass bys measured at NMP3 to the NSR location and then using those ambient sound levels is so damaging to the assessment of tranquillity but I'm going to skip over those at this time because I need to prioritise.

Related Mischaracterisation and Consequences of Decisions Involving Burbage Common & Woods

This section set out the following interlocking points:

1. Given LAeq values containing the unattenuated train pass bys measured at NMP3 have been stated as the LAeq values for the NSR location, those values are not a useful indication of current vs projected noise at the NSR location because the LAeq values are so skewed by the unattenuated, extremely close proximity train pass bys measured at NMP3.
2. The report's attempt to claim the predicted noise at Burbage Common & Woods would "not be out of character" with the current noise environment at Burbage Common & Woods is wrong.
3. Looking at the LA10 values measured at ML2 during the PEIR (LA10,16hr was 43 dB) and those displayed on the Summary Results page for measurements at NMP3 shows levels far lower than the 59 dB predicted due to the proposed link road.
4. The report wrongly believes the ambient sound levels at Burbage Common's NSR location are already above 55 dB during the weekday daytime and already above 50 dB during the weekend daytime because the LAeq values are overstated due to the absence of attenuation corrections to the extremely close proximity train pass bys measured at NMP3.

These problems are overwhelmingly caused by the failure to attenuate the sound of train pass bys measured at the NMP3 to the NSR location. The report then hides behind these overstated ambient sound levels to give the impression the noise levels wouldn't change that much. The only reason it looks like that is because the sound of train pass bys measured at NMP3 haven't been attenuated. That's the reason I had to resort to LA10 values, because stated LAeq values are skewed by that lack of attenuation.

This is why the applicant's response: "Noise impacting onto Burbage Common and Woods has been assessed by considering both the absolute noise levels and the change in noise levels. This is in line with the "IEMA Guidelines for environmental noise impact assessment" document." is rather missing the point.

The problem isn't that the tranquillity assessment looks at a change in LAeq rather than LA10 values, the problem is that not attenuating the sound of the train pass bys measured at NMP3 means the LAeq values at the NSR location are overstated, which means the scale of change in ambient sound levels at the NSR location due to the proposed A47 link road and site-related noise is concealed. Until the measured sound of train pass bys have been attenuated to the NSR location, looking at measured LA10 values and then taking the projected 57 dB LAeq dominated by the proposed link road and adding 2 dB to generate an LA10 value of 59 dB, provides a way to partially peer through to reality because the measured LA10 values aren't as skewed by train pass bys as those pass bys are inherently brief.

As I explained in my written representation, Paragraph 10.264 makes clear that the report's "Future contribution from Proposed Development" in Table 10.54 does not include the cumulative projected noise due to all site noise, only operational noise. The report has also not included increased noise due to projected off-site rail movements. The applicant did not respond to this point.

Fundamental Incompatibility Between the Proposer's Measured Facts and the Proposer's Modelled Road Noise

This section of my written representation explained that the current road noise figures within the contour maps created by the applicant are significantly higher than those recorded at noise monitoring positions relating to Burbage Common.

The applicant's response is: "The noise model used to determine off-site road traffic noise impacts underwent a calibration exercise as reported in Paragraphs 10.223 to 10.228. The assessment methodology as adopted from "Highways England (2019) Design Manual for Roads and Bridges (DMRB) LA 111 Noise and vibration Revision 2" is essentially based on a change in noise level, rather than a consideration of the absolute noise levels. Therefore, for the purpose of the road traffic noise assessment, a situation where the noise model is overpredicting compared to a measured noise level is not problematic. Where a noise model is underpredicting, there could be an issue in regard to future noise levels incorrectly being predicted below the threshold required for qualification under the Noise Insulation Regulations. However, this is not the case here."

The applicant seems to accept the road noise contour maps may well overstate the current road noise levels at Burbage Common. The applicant's response satisfies this section of my written representation.

This means the road noise contour maps do not contest the LA10 values measured at ML2 (during the PEIR) & NMP3. Comparing these values against the 59 dB LA10 predicted for Burbage Common's NSR location foreshadows the very large change in road noise due to the proposed A47 link road.

Once the sounds of train pass bys measured at NMP3 are attenuated to Burbage Common's NSR location, this change will also be reflected in a large difference between the LAeq at the NSR location and the predicted 57 LAeq at the NSR location. The difference will be particularly large for the weekend period.

Lack of Cumulative Impact Assessment

My written representation contained a section titled “Lack of Cumulative Impact Assessment”. This section explained that there is no cumulative ‘all in’ calculation of the increase in sound levels at NSRs due to the cumulative effect of all projected sources of sound: all noise from the site, increased road traffic noise and increased off-site rail movements.

The applicant’s response is: “Paragraphs 10.350 to 10.353 of the ES Noise and vibration chapter (document reference: 6.1.10, APP-119) provide an assessment of the cumulative and in-combination effects of noise and vibration as a result of the development.”

The referenced paragraphs do not include the calculation I described. There’s no figure of the cumulative projected increases in sound at each NSR due to the addition of all new sound sources and the increase in sound from existing sources.

The Black Box & Conclusion

My written representation contained a section titled “The Black Box & Conclusion”. This section explained that, given the amount of wrongful behaviour in the areas of the report which are somewhat open to inspection, and given the behaviour consistently flows to favour the applicant, it would be foolish to have confidence in those areas which aren't on public display.

The applicant's response is: “All noise model inputs, data sources, calculation methodologies, settings and software have been reported on, and noise contour outputs have been provided in the ES (document reference: 6.1.10, APP-119).”

I don't feel there's anything to comment on.