

Tritax Symmetry (Hinckley) Limited  
**HINCKLEY NATIONAL  
RAIL FREIGHT INTERCHANGE**

---

**The Hinckley National Rail Freight  
Interchange Development Consent Order**  
Project reference TR050007

**Applicant's response to Deadline 5 Submissions [part 10  
- Residents Businesses]**

Document reference: 18.19

Revision: 01

**20 February 2024**

---

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations  
2009 Regulation 5(2)(q)

No.	Matter	Applicant's Response
<b>Barbara Eugenia Lees - Post-hearing submissions including written submissions of oral cases</b>		
1	Whilst removing freight from the roads seems a good idea it is clearly not achievable in every location, particularly, as we have heard repeatedly throughout this process from both Highways and Leicestershire County Council, where the local roads have already reached capacity and are often at a standstill due to the intense concentration of warehouse development and local traffic in this area.	Future forecast models have used LCC's PRTM strategic model to forecast flows in the future baseline and the with development scenario. Where impacts are most significant, mitigation measures have been developed. Updated surveys have also been carried out to check the validity of the capacity models (in November 2023).
2	The Padge Hall Farm development will add even more traffic to the surrounding roads and there is no firm evidence that lowering the railway bridge over the A5 can be achieved in a reasonable time frame and the work will cause major disruption to rail and road traffic.	A full VISSIM Assessment has been carried out at the request of NH. This has assessed the Padge Hall development as well as the HNRFI infrastructure provision to understand interactions on the A5. The A47 link road and the new slips at Junction 2 change the movement of traffic in the area and this has been picked up in the forecast modelling.
3	The rail line is not a main line and is a cross country rail link. The disruption caused by increased downtime of the barrier at Narborough will impact people trying to reach essential services such as doctors, schools and cause more pollution in an area already at high risk.	<p>The line is a key part of Network Rail's Strategic Freight Routes and is indeed an important cross county rail link providing HNRFI with exceptional connectivity as a freight terminal.</p> <p>The extent of the additional downtime has been carefully considered and evidenced, including carrying out 24/7, week long, surveys. The impact on the communities of Narborough and Littlethorpe is not significant, and Blaby District Council's own independent consultant assessing the Socio Economic and Health Impacts of HNRFI concluded. <i>"CONCLUSION -</i></p> <p><i>5.10 This assessment concludes that the increased downtime of the barrier at Narborough Crossing is not considered to have an overall material impact on quality of life of residents. Nevertheless, there will be occasions when the effects will be</i></p>

Residents Businesses

No.	Matter	Applicant's Response
		<p><i>noticeable and would likely to influence daily routines causing delays.”</i> (document reference: REP1 –052) Deadline 1 Submission Written Representation Appendix 4).</p>
4	<p>Smaller villages such as Elmesthorpe, Stoney Stanton, Sapcote and Burbage will suffer disproportionately from increased traffic, increased noise and pollution. In particular Elmesthorpe will become isolated from the surrounding countryside and Burbage Common jeopardising many people’s way of life particularly those with horses and or equestrian businesses.</p>	<p>The creation of the A47 link which runs in parallel to the B581 in Elmesthorpe is forecast to remove traffic from the B581 Station Road.</p> <p>Receptors in these villages were included in the air quality assessment and predicted impacts were considered to be not significant in accordance with relevant guidance and legislation.</p> <p>Noise from both the construction and operational phases has been assessed at nearby receptors, which includes daytime and night-time periods over weekdays and weekends. The assessment shows that with mitigation in place, noise levels are predicted to fall below the Significant Observed Adverse Effect Level at all nearby receptors in the assessments undertaken. This includes receptors off Billington Road East, which are located closer than receptors within the village of Elmesthorpe. This can be found within the Residual Environmental Effects section of the Noise and Vibration Chapter (document reference: 6.1.10A, REP4-039).</p> <p>An alternative off-road bridleway route has been provided to allow continued access to Burbage Common. Upgraded surfaced routes and access to seating and well-being areas along the route serve to mitigate for the loss of amenity.</p>

No.	Matter	Applicant's Response
5	<p>The impact on Burbage Common will have far reaching long term effects - the location of the container storage and lorry park will increase noise and pollution, the proposed rail bridge virtually runs across the border of the Common and the link road alongside the cafe and play area. Unlike East Midlands Gateway the geography of the site means that little can be done by way of screening and noise bunds/barriers without causing an eyesore from all directions.</p>	<p>The various potential effects referred to have been considered and addressed in the ES with mitigation put in place to reduce effects where possible. As acknowledged, some significant landscape and visual effects remain as set out in the Residual Landscape and Visual Effects Section of ES Chapter 11 (document reference: 6.1.11B, REP4-041).</p>
6	<p>Public access to the countryside via the footpaths will be restricted and replaced with alternatives that are unattractive meaning that many people will drive to other locations to walk their dogs and exercise such as Fosse Meadows adding to the already busy roads or decide not to walk at all to the detriment of their long term health.</p>	<p>The alternative PRoWs offer additional accessible options including surfaced traffic free routes and access to seating and well-being areas along the route. These well-being areas would either serve as a resting place or a destination in itself, offering a shorter recreational option when time is more constrained. It should also be noted that public footpaths in other directions such as to the north and east, will continue to offer countryside routes.</p>
7	<p>East Midlands Gateway is not yet fully operational and its location bypasses the rail difficulties round Leicester and Narborough. that this development presents, Dirft is planning to expand and already serves Magna Park, Northampton Gateway is not yet operational and can access Magna Park in under 30 minutes via the M1. There are already plenty of Rail freight terminals existing or being developed in this area as mentioned in my earlier statement. This is an entirely unsuitable project for a rural area bordering directly on the historic Land Settlement area which has always been protected from inappropriate or excessive development by Blaby District Council and the well loved and used area of Burbage Common.</p>	<p>East Midlands Gateway is fully let. It serves a different area and is not on Network Rail's Strategic Freight Route, with its cross-country links providing a national hub connectivity and exceptionally good connections to key deep sea-ports.</p> <p>DIRFT has different rail connectivity to HNRFI and is not well connected for Felixstowe. Its main rail use is domestic and European traffic linked to its national distribution centres dealing with fast-moving consumer goods. Magna Park traffic for short sea / European routes can use Magna Park, and use HNRFI for Felixstowe and other locations readily connected to HNRFI via the Felixstowe to the Midlands and the North (F2MN) Strategic Freight Route.</p>

No.	Matter	Applicant's Response
		<p>The need for a rail freight terminal in South Leicestershire has been extensively evidenced and is accepted as needed by the relevant local authorities in their respective Statement of Common Grounds:</p> <p>Blaby District Council – Matters Agreed – Need for HNRFI - from page 1 Ref 1-7 (document reference: 19.1B, REP4-134)</p> <p>Hinckley &amp; Bosworth District Council - Matters Agreed – Need for HNRFI - from page 2 Ref 1-7 (document reference: 19.2B, REP4-135)</p> <p>Leicester County Council – Matters Agreed - Need HNRFI - from page 2 Ref 1-6 (document reference: 19.3B, REP4-136)</p> <p>The relevant local authorities accept that there is a need for SRFI and such a form of development, requiring a large site in excess of 60 hectares, good rail and road access cannot be accommodated within the confines of an existing urban area. As such, the compelling need for an expanded network of SRFIs requires a location beyond the confines of existing urban areas i.e. within the rural area/countryside. NPS-NN acknowledges that <i>'due to the requirements [the locational requirements of a SRFI] it may be that countryside locations are required for SRFIs'</i> (paragraph 4.84). HNRFI is locationally advantageous in view of its proximity to the large urban areas of Hinckley/Burbage and the</p>

No.	Matter	Applicant's Response
		SuEs that are committed within the development plan for Hinckley and Bosworth. This locational proximity assists in the opportunity to reduce the length of journeys travelled.
<b>Wendy Ferriman - Post-hearing submissions including written submissions of oral cases</b>		
8	<p>I am a long-term resident of Burbage (50+ years) and attended the Open Floor livestream event on 24th January. I have a few points to make. Firstly, it is unbelievable that with just a few weeks to go before the end of the process there is still so much information that has not been provided by Tritax Symmetry. For example, on the traffic data, National Highways, Leicestershire County Council repeatedly replied to the Examiners questions "we continue to work with the Applicant"; "no modelling confirmed"; "haven't seen the modelling"; "is the modelling robust enough?". This clearly demonstrates how poorly prepared Tritax have been and continue to be. It's outrageous at this stage of the process that they continue to drag their feet. It makes me wonder whether it is another deliberate ploy to confuse the process and deliver the minimum at the very last minute. ON THESE GROUNDS ALONE THE APPLICATION SHOULD BE REJECTED! In their responses at the meeting Tritax continuously used the phrases "we believe" or "we don't believe" - but that is just not good enough! In order to provide robust assurances, they must provide hard facts and figures to back up their beliefs, if they are to be believed. For example, in the discussion of the M69 Junction 3 congestion problems, Tritax Stated "we don't believe we will have a material impact..." on the traffic numbers. I disagree. I drive this route frequently. In reality the problem at peak times is the sheer volume of traffic using the roundabout which makes it difficult for vehicles to get off the M69 onto the roundabout. This in turn causes a backlog of traffic, often up to several miles down the M69. This Junction is already massively overloaded. Tritax do not seem to be taking into consideration the potential additional</p>	<p>All modelling has been carried out based on the best available traffic forecasting tools. All inputs to the strategic models were agreed with the Transport Working Group including all committed or reasonably foreseeable developments up to 2036.</p> <p>There has been extensive work on understanding impacts of the development and its infrastructure into the future. This has been balanced with the need to mitigate impacts on the local and strategic road network where development impacts are severe.</p> <p>Re-surveys in 2023 and further modelling has been carried out at the request of the highway authorities, this has not changed the conclusions originally drawn from the modelling exercise and the Applicant is clear that the mitigation and modelling is appropriate and proportionate to the impact of the Development.</p>

No.	Matter	Applicant's Response
	<p>traffic which will be created by the planned construction of several hundred homes in Burbage which are likely to be completed even before this project gets started. The roads are already congested in the village with single lane thoroughfares due to residents parking their cars on the road. Tritax do not appear to have factored in the huge potential increase in local traffic. WHEN CAN WE SEE REALISTIC TRAFFIC DATA? Highway data is a hugely important issue for so many residents in the area. Considering their experience in large scale warehouse developments it does appear to me to be very odd that Tritax are so lacking in transparency on this one.</p>	
9	<p>During the meeting, the Applicant was challenged by two experts on the noise data and how it has been collected. Tritax appeared reluctant to reveal their methodology and they were questioned on why they had collected data on a Sunday night and whether this was a way to manipulate the data to suit minimum limits. In my opinion if Tritax are being taken to task on this one element, and proving to lack transparency, it brings into question all of their mitigations for other elements – light pollution, environment mitigations, air quality, flood risk etc etc, where there has been no expert to challenge their methodologies and data.</p>	<p>To clarify, it is our understanding that the two experts referred to here have no formal qualifications in acoustics, are not members of a professional acoustics body e.g. the Institute of Acoustics and have no relevant experience in quantifying and assessing environmental noise and vibration.</p> <p>The methodology has been agreed with the technical officers at Blaby District Council and Hinckley and Bosworth Borough Council through the Statement of Common Ground (document reference: 19.1B, REP4-134, Revision 3). This has included the input from BDC and HBBC's independent noise expert at M-EC, who is suitably qualified to do so.</p>
10	<p>Flood risks – in view of the recent floods in the area caused by storm Henk in January I am extremely concerned as to whether the flood management proposals put forward by Tritax are robust enough to cope with a worsening situation due to climate change. The rainfall in this storm was unprecedented, there was flooding in Sharnford and in localised areas around Hinckley and Burbage - surely a sign of things to come? Please refer to the diagram below which shows the myriad of watercourses in the area and within the proposed site. These water courses will be further</p>	<p>The applicant has undertaken detailed flood modelling of the watercourses within and surrounding the site, the results of which have been shared and agreed with the Environment Agency and Lead Local Flood Authorities (Leicestershire and Warwickshire) via Statements of Common Ground - Reference documents 19.3B, REP4-136, 19.6A, REP4-137 &amp; 19.9, REP2-085 respectively.</p>

No.	Matter	Applicant's Response
	<p>pressurised by the huge amount of housing development that is planned for the Burbage area. There is potential for massive scale flooding to this area and the surrounding villages. This is a very worrying picture indeed and there needs to be further investigation as to the strength of the Tritax flood management proposals</p>	<p>The flood modelling reflects a 1 in 100 year flood event with an allowance for climate change based on EA recommendations – the reason for this is to ensure that the development remains safe throughout its design life including the gradual effect of climate change, without increasing flood risk elsewhere.</p> <p>Through the inclusion of Sustainable Drainage Systems within the proposals, peak runoff is managed such that in more extreme events flows leaving the site are actually reduced.</p> <p>Whilst recent rainfall has been substantial, it is not in excess of that used within the modelling and as such the approach is robust.</p>
<p><b>Residents of 6 Wortley Cottages - Comments on any additional submissions received by Deadline 4</b></p>		
11	<p>This representation relates to the Applicant's response in document 20.1.2 R1 to the Examining Authority's written question 1.3.4 Examining Authority's question 1.3.4</p> <p>"The residents of 6 Wortley Cottage, who according to the Book of Reference have interests in various parcels of land in the vicinity of Bostock Close and Station Road, Elmesthorpe, assert that they have not been notified of the potential interference with their land rights [REP3-140]. Could the Applicant please demonstrate through the submission of signposting and/ or documents as to what engagement has taken place with these resident" Applicant's response:</p> <p>A copy of their letter sent on the 7/1/2022 – the generic letter identifying the initial proposal</p> <p>A copy of their letter sent on the 4/2/2022 – a generic letter identifying errors in their previous letter</p>	<p>The interested party has rights noted in plots 49 and 50 which are subject to temporary possession powers and which comprise woodland and adopted public highway (being a right of way). The rights are required to deliver the footpath diversion works as part of the closure of the Elmesthorpe Level Crossing.</p> <p>The Applicant refutes that the interested parties have not had sufficient opportunity to comment on the proposals and understand the nature of the works on the affected parcels. The Applicant has always been clear that it is open to contact and conversations and its contact details are on the letters sent to the residents, the project website and in the Statement of Reasons.</p>



No.	Matter	Applicant's Response
	<p>A copy of their letter (which was undated) – notifying of the acceptance of their DCO application for examination”</p> <p>My comments The Applicant’s response merely reaffirms my previous comment in REP3-140 that they have not notified me, or the other house owners of the six individual Wortley cottages, regarding their intention of invoking specific compulsory acquisition TP orders, and of the applicant’s inclusion of our properties in both the Compulsory Acquisition Schedule or the Book of Reference. I would point out that even the latest generic letter received from the applicant is dated prior to the first edition of the Compulsory Acquisition Schedule! In addition, even though later revisions of the Compulsory Acquisition Schedule have now subsequent been released (REP4-036 version 4.4B 9/1/2024) since my representation in REP3-140, they have not updated their table in the CAS to indicate that I have raised Written Representations, Relevant Representations, and have vehemently objected to their application. This would lead the examining authority to potentially believe that I am content with the situation. As the applicant has not notified me of this information and have also misrepresented my stance on the matter I believe I have been denied the full ability to research and understand the full impact to me, and consequently make further relevant objections to the examining authority.</p>	<p>The interested parties have clearly had a chance to review the Book of Reference and Compulsory Acquisition Schedule, which note that the relevant interests relate to drainage from a 1917 Conveyance.</p> <p>The works to divert the right of way will not interfere with the interested party’s drainage rights.</p> <p>The applicant notes the comments in the Rule 17 letter in relation to the compulsory acquisition schedule and this will be corrected for Deadline 7.</p>
<p><b>William David Moore - Comments on Blaby District Council’s Answers to ExA Written Questions</b></p>		
<p>12</p>	<p>ExQ 1.8.2. Ambient Noise Levels:</p> <p>BDC’s answer is: “Ambient (LAeqT) and maximum (LAm<sub>ax</sub>) noise levels will have been attenuated for both distance and topography within the noise model.”</p>	<p>Please see previous response provided at Deadline 5 - Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] (document reference: 18.17, REP5-050), and through Issue Specific Hearing 6, summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025)</p>

No.	Matter	Applicant's Response
	<p>This answer indicates BDC didn't understand the Examining Authority's question.</p> <p>It is the projected operational ambient noise and the projected operational LAmx levels which have been attenuated for both distance and topography within the applicant's operational noise model.</p> <p>But the Examining Authority's question wasn't about operational noise, it was about the current baseline ambient sound levels measured by NMP4 &amp; NMP3 and used in the applicant's report. These are not part of any noise model and no attenuations have been applied.</p> <p>Attenuation corrections need to be applied to the measured sound of the train pass bys to account for the distance between the railway line and the NSRs. This lack of understanding by the two councils is a sign of how such wrongful behaviour by the applicant has been able to remain in place for as long as it has.</p>	
<b>William David Moore - Comments on the Applicant's Response to ExA Written Questions</b>		
<b>13</b>	<p><b>ExQ 1.8.2 Ambient Noise Levels:</b></p> <p>The applicant's update note doesn't address NMP3 &amp; its NSR 19 (Burbage Common &amp; Woods) at all.</p> <p>The update note doesn't address all eleven NSRs associated with NMP4. It only addresses the NSRs which it thinks are on Billington Road East.</p> <p>The update note misstates the locations of NSRs 2, 3 &amp; 4 and they should not have been included in Table 5.</p>	<p>These points have previously been addressed at Deadline 5 and at Issue Specific Hearing 6. Please see 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] (document reference: 18.17, REP5-050) and summary in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025).</p>

No.	Matter	Applicant's Response
	<p>The update note attempts to introduce rail noise contours to claim all the NSRs in Table 5 experience 50 dB of ambient rail noise, but all the NSRs in Table 5 are outside the contours.</p> <p>The rail noise contours in the applicant's update note show sound levels far higher than those measured by NMP4 &amp; NMP3.</p> <p>The update note attempts to introduce the applicant's road noise contours to make claims about ambient road noise at the NSRs in Table 5. The applicant's own report states that the ambient sound levels predicted by the applicant's road noise model are higher than those measured by noise monitoring positions.</p> <p>At NMP5, in close proximity to the M69, the ambient sound levels predicted by the applicant's road noise model were 7 dB above the levels measured by NMP5.</p> <p>At NMP1, also in close proximity to the M69, the predicted daytime ambient sound levels were 5.4 dB above the levels measured and used in the report. The predicted night-time ambient sound levels were 6.4 dB above the levels measured and used in the report.</p> <p>I made a number of other points in my response to the applicant's update note at Deadline 4, which I won't repeat here. I expect the applicant to make a response to those points at Deadline 5.</p> <p><b>The noise contours introduced by the applicant are known to overstate noise levels versus those measured by NMPs and they should not be used in lieu of NMP measurements.</b></p>	

No.	Matter	Applicant's Response
	<p>The applicant needs to be returned to the sound levels measured by NMP4, and the applicant needs to apply attenuation corrections to the measured sound of train pass bys to generate ambient sound levels at NSRs 1-8 &amp; 24-26 during weekday daytimes, weekday night-times, weekend daytimes and weekend night-times.</p> <p>The applicant needs to do the same with NMP3 &amp; its NSR19 for the weekday and weekend daytimes.</p>	
<p>14</p>	<p><b>ExQ 1.8.13 Background and Rating Levels:</b>            This relates to Paragraph 10.174 of the applicant's Main Statement on Noise. The applicant's inclusion of Paragraph 10.174 is highly misleading, it should not be in the report, and the report should not have relied upon it at all. Paragraph 10.174 would only apply if both background levels and rating levels are low.</p> <p>The Technical Note to BS 4142 published by the Association of Noise Consultants provides independent, third-party evidence that the applicant is failing to adhere to BS 4142.</p> <p>The Technical Note refers to the Scope of the 1997 version of BS 4142, "which defined very low background sound levels as being less than about 30 dB LA90, and low rating levels as being less than about 35 dB LAr,Tr."</p> <p>In this case, the background and rating levels in the report are significantly higher than those levels at all NSRs during all time periods, so Paragraph 10.174 does not apply. Yet the applicant has still wrongly included it, has wrongly given the impression it applies, and has wrongly disprivileged the</p>	<p>BS4142:2014 states that 'where the initial estimate of the impact needs to modified due to the context, take all pertinent factors into consideration, including the following;</p> <ul style="list-style-type: none"> <li>• The absolute level of sound;</li> <li>• The character and level of the residual sound compared to the character and level of specific sound;</li> <li>• The sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already incorporate measures that secure good internal and/or outdoor acoustic conditions.</li> </ul> <p>The Association of Noise Consultants (ANC) is a trade organisation. The Technical Note was produced to assist their members with interpretation of the British Standard, however p2 of the document states:</p> <p>"This is intended to be a discussion document with some qualified views from the ANC Working Group (WG) and should</p>

No.	Matter	Applicant's Response
	<p>importance of the exceedance of the rating level above the background sound level.</p> <p>In this case, the exceedances of the rating levels above the background sound levels are what matter.</p> <p><b>This has been repeatedly explained to the applicant since Deadline 1.</b></p>	<p>not be taken as a prescriptive guide. The discussion is also intended to assist with the evolution and development of subsequent guidance.”</p> <p>The applicant considers BS4142 to be clear as a standalone document, and it is not considered that there is anything within the ANC Technical Note that would change the approach or results of the assessments set out in the ES Chapter.</p> <p>Notwithstanding the above, the resultant operational noise levels have been assessed in accordance with BS4142, BS8233 and IEMA to be robust. The assessment shows that with mitigation in place, noise levels are predicted to fall below the Significant Observed Adverse Effect Level at all nearby receptors in the assessments undertaken.</p> <p>The operational phase noise assessment methodology is agreed through the Statement of Common Ground with BDC and HBBC.</p>
<p><b>15</b></p>	<p><b>ExQ 1.8.14 Rail Movements:</b></p> <p>The applicant would need to have significantly overstated the number of freight train pass bys to have an appreciable effect on the applicant's stated ambient noise levels in proximity to the railway. The applicant has done exactly that. The applicant has overstated the number of freight train pass bys to the tune of 40 freight trains during a weekday, with even larger overstatements during the weekends. A freight train pass by generates</p>	<p>The baselines used have been confirmed by NR and the Applicant's rail consultant as being accurate and representative. In respect of Saturday night when no trains run, the noise data measured onsite shows that trains run on the other 6 nights a week, and so Saturday night is atypical.</p>

No.	Matter	Applicant's Response
	<p>many multiples of the sound energy generated by a passenger train pass by so overstating freight trains is particularly significant.</p> <p><b>This has been repeatedly explained to the applicant since Deadline 1</b></p>	
16	<p>The applicant is retreating to strategic contours. We have levels measured on the ground at the site: The measurements of NMP3 &amp; NMP4. Both of those NMPs show sound levels far lower than those depicted by the strategic contours.</p>	<p>The measured noise levels have been used within the noise and vibration assessment. DEFRA noise contours have been used for context but have not been relied upon within the assessment.</p>
17	<p><b>ExQ 1.8.23 c) Rating Levels:</b></p> <p>A +3dB penalty due to “other sound characteristics” should be applied in the absence of penalties due to impulsivity, tonality or intermittency, as it was in the noise reports of other rail freight interchange proposals.</p> <p><b>This has been repeatedly explained to the applicant since Deadline 1.</b></p> <p>Whether the applicant does or does not regard the addition of the +3dB as causing a change which is significant has no bearing on whether the penalty should be applied. 2</p> <p>The applicant’s report contains multiple layers of wrongful behaviour which coalesce to create a distorted picture. A separate “sensitivity analysis” does not correct any of the wrongful behaviour in the report and the applicant’s noise report remains fully distorted.</p>	<p>Please refer to the response provided at Deadline 5 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] (document reference: 18.17, REP5-050) and through Issue Specific Hearing 6, summarised in the Applicants Written Statement of Oral Case (document reference 18.5, REP5-025).</p> <p>The Applicant strongly disagrees with this statement. The noise and vibration assessment has been undertaken in accordance with the correct calculation methodologies and guidance. The methodology is agreed with Blaby District Council and Hinckley and Bosworth Borough Council through the Statement of Common Ground.</p>
18	<p><b>ExQ 1.8.24 Rating Penalties:</b></p> <p>The applicant states: “The rating penalties have been applied in accordance with the subjective method”. This does not explain how the applicant has made decisions concerning rating penalty allocation.</p>	<p>The application of rating penalties is based on professional judgement using the guidance set out in BS4142:2014+A1:2019.</p> <p>A review has been undertaken of the Noise and Vibration Chapter prepared for Northampton Gateway (Document 5.2</p>

No.	Matter	Applicant's Response
	<p>Has the applicant simply had a guess? There's no evidence the applicant has done anything other than that.</p> <p>In the case of The West Midlands Rail Freight Interchange Environmental Statement On Noise and Vibration, a clear method was disclosed and used "to provide a consistent, quantified approach to determining the likelihood of each characteristic being audible." Applying that method to the sound levels in the applicant's report leads to far higher rating penalties than the unsubstantiated rating penalties in the applicant's report.</p> <p><b>This has been repeatedly explained to the applicant since Deadline 1</b></p>	<p>Chapter 8). The report acknowledges that operational sound from the SRFI would be complex in nature and as a cautious approach, a +3dB(A) penalty has been applied to all sources of an industrial nature on the SRFI to account for features that may be readily distinctive at the receptors. A review has also been undertaken of the Noise and Vibration chapter prepared for East Midlands Gateway (Chapter 9 Document 5.2 July 2014). In this assessment, a +5dB correction has been applied to the predicted noise levels to take account of the acoustic characteristics. It is important to note that the 1997 version of BS4142 was still the extant version at the time and a there was only the option of applying a +5 correction or no correction to the specific sound level to arrive at a rating level. This demonstrates that there is no standard accepted methodology for determining rating levels, and it is based on professional judgement.</p>
19	<p><b>ExQ 1.8.26 Magnitude of effect applicable to LAFmax levels:</b></p> <p>The applicant's responses strongly indicate the report is not considering the number of container placements and spreader impacts there may be during a night-time period, despite there likely being very many of them.</p>	<p>This is incorrect. The assessment considers the highest LAFmax levels that could be experienced at NSRs. Notwithstanding this, as previously stated, 'Soft dock' technology will be implemented on the scheme which allows containers to be positioned accurately using cameras and gentle positioning onto stacks and trailers. This is the mitigation strategy for reducing maximum noise levels associated with spreader impact and container placement.</p>

No.	Matter	Applicant's Response
20	<p data-bbox="297 244 887 272"><b>ExQ 1.8.33 Noise – Burbage Common Wood:</b></p> <p data-bbox="297 320 1283 467">The applicant states: “There is a small area adjacent to the A47 link road near where the road crosses the railway line, that is predicted to experience noise levels up to 65dB LAeq,T, but this is not representative of the area as a whole.”</p> <p data-bbox="297 515 1223 662">At exactly the same time, the applicant is using ambient sound levels measured in extremely close proximity to the railway line, without attenuating the measured sound of the train pass by to the location of Burbage Common’s NSR 19, ~85 metres from the railway line.</p> <p data-bbox="297 710 1279 818">The applicant has used these ambient sound levels containing unattenuated, extremely close proximity train pass bys - leading to ambient sound levels of 57 dB - as being representative of the area.</p> <p data-bbox="297 866 1037 895">Can the Examining Authority see the inconsistency here?</p> <p data-bbox="297 943 1245 1016">The applicant states: “The assessment has also assumed the higher noise level (i.e no mitigation) for gantry cranes, which in reality will be lower.”</p> <p data-bbox="297 1064 1279 1362">The post-mitigation specific sound levels presented by the applicant and used in the applicant’s comparison tables actually exclude all noise associated with the gantry cranes. The applicant explains this in Paragraph 10.284 of the applicant’s Main Statement on Noise: “Due to the height of the gantry cranes, a barrier of significant height would be required to remove line of sight to the nearest NSRs. Therefore, consideration has been given to plant selection and noise control options further in this section, to control the noise at source. Considering this, the noise associated with the</p>	<p data-bbox="1317 244 2130 349">Please see response provided at Deadline 5 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] (document reference: 18.17, REP5-050).</p>



No.	Matter	Applicant's Response
	<p>gantry cranes and associated character correction have been removed from the following assessment.”</p> <p>The applicant does not show the post-mitigation specific sound levels with the gantry cranes included.</p>	
<b>William David Moore - Comments on Hinckley &amp; Bosworth Borough Council's Answers to ExA Written Questions</b>		
21	<p>ExQ 1.8.2. Ambient Noise Levels:</p> <p>HBBC's answer is: "Ambient (LAeqT) and maximum (LAm<sub>ax</sub>) noise levels will have been attenuated for both distance and topography within the noise model."</p> <p>This answer indicates HBBC didn't understand the Examining Authority's question.</p> <p>It is the projected operational ambient noise and the projected operational LAm<sub>ax</sub> levels which have been attenuated for both distance and topography within the applicant's operational noise model.</p> <p>But the Examining Authority's question wasn't about operational noise, it was about the current baseline ambient sound levels measured by NMP4 &amp; NMP3 and used in the applicant's report. These are not part of any noise model and no attenuations have been applied.</p> <p>Attenuation corrections need to be applied to the measured sound of the train pass bys to account for the distance between the railway line and the NSRs.</p>	<p>Please see previous response provided at Deadline 5 Deadline 5 Submission - 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] (document reference: 18.17, REP5-050).</p>

No.	Matter	Applicant's Response
	This lack of understanding by the two councils is a sign of how such wrongful behaviour by the applicant has been able to remain in place for as long as it has.	
<b>William David Moore - Comments on the Applicant's Response to Deadline 3 Submissions [Part 9 - Noise]</b>		
22	<p>Introduction On 10th October 2023, I submitted a 33 page Written Representation which addressed the noise and vibration report. The document contained 16 sections.</p> <p>The responses the applicant chose to make to written representations submitted by those interested parties who registered as individuals, were contained within Applicant's Comments on Written Representations [Part 4 of 4 Residents Businesses].</p> <p>I responded to this in my Comments On The Applicant's Response To Written Representations. I generally included a brief, non-exhaustive summary of each section of my written representation, followed by the applicant response which most closely matched with that section. In many cases, I did not consider the applicant's comments to be a meaningful response to my written representation.</p> <p>The applicant has now responded to this in Applicant's response to deadline 3 submissions [Part 9 - Noise]</p> <p>I am now responding to that document. To prevent extreme length, I have not included previous correspondence.</p>	
23	<p><b>Catastrophic Foundational Failure The applicant's response is:</b></p> <p><b>“Further information to support the continued use of the measured ambient noise levels is provided specifically in pages 6 to 11 of the Written Statements of Oral Case ISH3 [Appendix F - Noise Assessment Update Note]</b></p>	These points have previously been addressed at Deadline 4, Deadline 5 and at Issue Specific Hearing 6. Please see previous responses.

No.	Matter	Applicant's Response
	<p>(document reference: 18.7.6, REP3-061). Essentially, within that document, the NMP4 measurement data was compared against DEFRA strategic noise mapping and found that, with increased distance from the rail line moving north, receptors experience increased road traffic noise and therefore for NSRs represented by NMP4, the ambient noise levels from the mapping align with those used.”</p> <p>The update note doesn't address all eleven NSRs associated with NMP4. It only addresses the NSRs which it thinks are on Billington Road East.</p> <p>The update note misstates the locations of NSRs 2, 3 &amp; 4 and they should not have been included in Table 5.</p> <p>The update note attempts to introduce rail noise contours to claim all the NSRs in Table 5 experience 50 dB of ambient rail noise, but all the NSRs in Table 5 are outside the contours. The rail noise contours in the applicant's update note show sound levels far higher than those measured by NMP4 &amp; NMP3.</p> <p>The update note attempts to introduce the applicant's road noise contours to make claims about ambient road noise at the NSRs in Table 5. The applicant's own report states that the ambient sound levels predicted by the applicant's road noise model are higher than those measured by noise monitoring positions.</p> <p>At NMP5, in close proximity to the M69, the ambient sound levels predicted by the applicant's road noise model were 7 dB above the levels measured by NMP5.</p>	<p>Response to Deadline 3 submissions – Noise (document reference: 18.13, REP4-128).</p> <p>18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] (document reference: 18.17, REP5-050).</p> <p>Summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025)</p>

No.	Matter	Applicant's Response
	<p>At NMP1, also in close proximity to the M69, the predicted daytime ambient sound levels were 5.4 dB above the levels measured and used in the report. The predicted night-time ambient sound levels were 6.4 dB above the levels measured and used in the report.</p> <p>I made a number of other points in my response to the applicant's update note at Deadline 4, which I won't repeat here. I expect a response to those points at Deadline 5.</p> <p><b>The noise contours introduced by the applicant are known to overstate noise levels versus those measured by NMPs and they should not be used in lieu of NMP measurements.</b></p> <p><b>The applicant needs to be returned to the sound levels measured by NMP4 and the applicant needs to apply attenuation corrections to the measured sound of train pass bys to generate ambient sound levels at NSRs 1-8 &amp; 24-26 during weekday daytimes, weekday night-times, weekend daytimes and weekend night-times.</b></p>	
24	<p>Lack of Any Rating Penalty to Projected Specific Sound</p> <p>The applicant's response is: "At the request of BDC and HBBC, a sensitivity analysis has been undertaken to test the impact of adding a +3dB acoustic character penalty to the mitigated operational noise levels. The results of this and corresponding conclusions are provided in the Statement of Common Ground (NRFI SoCG between the Applicant and Blaby District Council Document Reference 19.1B)."</p> <p>NRFI SoCG between the Applicant and Blaby District Council Document Reference 19.1B:</p>	<p>Please refer to the response provided at Deadline 5 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] (document reference: 18.17, REP5-050) and through Issue Specific Hearing 6, summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025).</p> <p>Also see response to EXA 1.8.23 c) above</p>

No.	Matter	Applicant's Response
	<p>“Through discussions with BDC and HBBC, a sensitivity analysis has been undertaken where 3dB penalty for operational noise associated with the HNRFI has been applied. This sensitivity analysis concludes that with the implementation of acoustic barriers, the resultant effects at nearby NSRs are not significant.”</p> <p>Since Deadline 1, I have repeatedly explained to the applicant that a +3dB penalty due to “other sound characteristics” should be applied in the absence of penalties due to impulsivity, tonality or intermittency. Whether the applicant does or does not regard the addition of the +3dB as causing a change which is significant has no bearing on whether the penalty should be applied.</p> <p>The applicant’s report contains multiple layers of wrongful behaviour which coalesce to create a distorted picture. A separate “sensitivity analysis” does not correct any of the wrongful behaviour in the report and the applicant’s noise report remains fully distorted.</p> <p><b>The applicant has once again failed to address the point I made and the evidence I provided to support that point.</b></p>	
<p><b>25</b></p>	<p><b>Improper Application of Impulsive and Tonal Penalties to Projected Specific Sound</b> The applicant’s response is: “The applicant has clearly set out the rationale for the acoustic character corrections selected in paragraphs 10.157 to 10.161 and does not agree with the interested party’s view on this.”</p> <p>My written representation explained that the applicant’s report does not disclose the method used to allocate rating penalties and that applying the</p>	<p>See response to ExQ 1.8.24 above</p>

No.	Matter	Applicant's Response
	<p>method disclosed and used in Paragraph 13.256 of The West Midlands Rail Freight Interchange Environmental Statement On Noise and Vibration using the applicant's own sound levels results in far higher rating penalties.</p> <p>The applicant's method still hasn't been disclosed. The applicant does not disclose any detailed reasoning behind the report's allocated rating penalties, statements are made without any methodological or numerical justification.</p> <p>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.</p> <p><b>The applicant has once again failed to address the points I made and the evidence I provided to support those points.</b></p>	
26	<p><b>Wrongful Expunging of Saturday Night-time Sound Measurements</b></p> <p>The applicant's response is:</p> <p><i>"With regard to the use of weekend night-time time data, as previously stated in paragraph 10.107, previous measurements undertaken in 2018 as part of the project included Saturday night noise levels that correlated well with the understanding around train movements on that night. Therefore, it is considered that this is more representative baseline position to take."</i></p> <p>My written representation provided overwhelming evidence that NMP4's measured Saturday night-time noise levels should not have been expunged</p>	<p>Please refer to the response provided at Deadline 5 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] (document reference: 18.17, REP5-050) and through Issue Specific Hearing 6, summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025).</p>

No.	Matter	Applicant's Response
	<p>and that Sunday night-time train pass bys are structurally higher. The evidence showed four consecutive Saturday night-times having a maximum of one passenger train which may or may not pass by in the first few minutes of the night.</p> <p>If the applicant continues to deny reality and continues to refuse to reinstate the Saturday night-time noise levels measured by NMP4 then I will submit yet more evidence. The applicant's purported "understanding" of weekend night-time train pass bys is uninformed.</p> <p><b>The applicant has once again failed to address the points I made and the evidence I provided to support those points.</b></p>	
<p><b>27</b></p>	<p><b>Highly Misleading Reference to Relevance of Absolute Sound Levels (Context Section)</b></p> <p>The applicant's response is:</p> <p><i>"The Association of Noise Consultants (ANC) is a trade organisation. The Technical Note was produced to assist their members with interpretation of the British Standard, however p2 of the document states: "This is intended to be a discussion document with some qualified views from the ANC Working Group (WG) and should not be taken as a prescriptive guide. The discussion is also intended to assist with the evolution and development of subsequent guidance." The applicant considers BS4142 to be clear as a standalone document, and it is not considered that there is anything within the ANC Technical Note that would change the approach or results of the assessments set out in the ES Chapter. Notwithstanding this, the IEMA Guidelines for Noise Impact Assessment 2014 stat in 7.54 that "Relying solely on the change in noise level is not appropriate because it risks</i></p>	<p>Please see above response to ExQ 1.8.13</p>

No.	Matter	Applicant's Response
	<p>ignoring the context of the noise change” and recommends the consideration of the absolute level. The consideration of a rating level against background sound level, a change in ambient noise level and the future absolute noise level then provides a comprehensive evidence base on which to determine the residual effect. As previously stated in the Deadline 2 submission, 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.”</p> <p>My written representation explained that the applicant’s inclusion of Paragraph 10.174 is highly misleading, that it should not be in the report, and that the report should not have relied upon it at all. Paragraph 10.174 would only apply if <b>both</b> background levels and rating levels are low.</p> <p>The Technical Note to BS 4142 published by the Association of Noise Consultants provides independent, third-party evidence that the applicant is failing to adhere to BS 4142. The Technical Note refers to the Scope of the 1997 version of BS 4142, “which defined very low background sound levels as being less than about 30 dB LA90, and low rating levels as being less than about 35 dB LAr,Tr.”</p> <p>In this case, the background and rating levels in the report are significantly higher than those levels at all NSRs during all time periods, so Paragraph 10.174 does not apply. Yet the applicant has still wrongly included it, has wrongly given the impression it applies, and has wrongly disprivileged the importance of the exceedance of the rating level above the background</p>	



No.	Matter	Applicant's Response
	<p>sound level. In this case, the exceedances of the rating levels above the background sound levels are what matter.</p> <p>The applicant's inclusion and reliance upon Paragraph 10.174 is not justified by any of the 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.</p> <p><b>This has already been explained to the applicant. The explanation was given at Deadline 3.</b></p> <p><b>The applicant has once again failed to address the points I made and the evidence I provided to support those points.</b></p>	
28	<p><b>Use and Misuse of Context</b></p> <p>The applicant's response is:</p> <p><i>"The Association of Noise Consultants (ANC) is a trade organisation. The Technical Note was produced to assist their members with interpretation of the British Standard, however p2 of the document states:</i></p> <p><i>"This is intended to be a discussion document with some qualified views from the ANC Working Group (WG) and should not be taken as a prescriptive guide. The discussion is also intended to assist with the evolution and development of subsequent guidance."</i></p> <p><i>The applicant considers BS4142 to be clear as a standalone document, and it is not considered that there is anything within the ANC Technical Note</i></p>	<p>Please refer to the response provided at Deadline 5 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] (document reference: 18.17, REP5-050) and through Issue Specific Hearing 6, summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025), and ExQ 1.8.13 above.</p>

No.	Matter	Applicant's Response
	<p>that would change the approach or results of the assessments set out in the ES Chapter.</p> <p>Notwithstanding this, the IEMA Guidelines for Noise Impact Assessment 2014 stat in 7.54 that “Relying solely on the change in noise level is not appropriate because it risks ignoring the context of the noise change” and recommends the consideration of the absolute level. The consideration of a rating level against background sound level, a change in ambient noise level and the future absolute noise level then provides a comprehensive evidence base on which to determine the residual effect.</p> <p>As previously stated in the Deadline 2 submission, 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.”</p> <p>My written representation 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.</p> <p>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”.</p>	

No.	Matter	Applicant's Response
	<p>In case of East Midlands Gateway – Rail Freight Interchange, 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.</p> <p>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. <b>The report appallingly fails to distinguish between the brief, sporadic nature of train pass bys and the projected noise. Brief noise from train pass bys wouldn't mask the relatively continuous 18 dB 8 above background industrial noise. The projected operational noise would be highly perceptible almost all the time. The applicant fails to properly consider the context.</b></p> <p>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.</p> <p>Meanwhile, in this case, the (understated) night-time rating levels are compared with the night-time background levels. The rating levels are far</p>	

No.	Matter	Applicant's Response
	<p>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. <b>The applicant appallingly fails to distinguish between the brief, sporadic nature of train pass bys and the projected noise. Brief noise from train pass bys wouldn't mask the relatively continuous 18 dB above background industrial noise. The projected operational noise would be highly perceptible almost all the time. The applicant fails to properly consider the context.</b></p> <p>The applicant's context section is nothing like the context section of East Midlands Gateway – Rail Freight Interchange. The applicant really must stop claiming it is.</p> <p>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 stated ambient levels. The method statement lists three potential uses for ambient sound levels and comparison against operational noise isn't one of them.</p> <p>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.</p>	

No.	Matter	Applicant's Response
	<p><b>This has already been explained to the applicant, the explanation was given at Deadline 3. The applicant has once again failed to address the points I made and the evidence I provided to support those points.</b></p>	
<p><b>29</b></p>	<p><b>Demonstrable Overstatement of Current Freight Train Passes</b></p> <p>Part one of the applicant's response is:</p> <p><i>“There would need to be a significant reduction in number of trains running for this to have an appreciable effect on the existing ambient noise levels in proximity to the railway.”</i></p> <p>It's true that the applicant would need to have significantly overstated the number of freight train pass bys to have an appreciable effect on the applicant's stated ambient noise levels in proximity to the railway. The applicant has done exactly that. The applicant has overstated the number of freight train pass bys to the tune of 40 freight trains during a weekday. 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.</p> <p><b>This has been repeatedly explained to the applicant since Deadline 1.</b></p> <p>The overstatement is even larger for the weekend time periods. 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.</p> <p><b>This has been repeatedly explained to the applicant since Deadline 1. The applicant has never responded to this point.</b></p>	<p>See response to ExQ 1.8.14 above</p>

No.	Matter	Applicant's Response
	<p>Part two of the applicant's response is:</p> <p><i>“Furthermore, in the applicant’s Written Statements of Oral Case ISH3 [Appendix F - Noise Assessment Update Note] (document reference: 18.7.6, REP3-061), the Defra strategic noise mapping for the railway is referenced. This is essentially annualised data that allows a long term “average” to be considered. The document demonstrates that the levels used for the existing ambient baseline are representative.”</i></p> <p>The applicant is retreating to strategic contours. We have levels measured on the ground at the site: The measurements of NMP3 &amp; NMP4. Both of those NMPs show sound levels far lower than those depicted by the strategic contours which the applicant is attempting to rely on.</p> <p>Finally, 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.</p> <p><b>The applicant has never responded to this point</b></p>	<p>Table 10.9 is based on the IEMA guidelines taking into account other pertinent guidance.</p>
30	<p><b>Construction and Construction ‘Mitigation’</b></p> <p>The applicant's response is: <i>“Please see response to point 26.”</i></p>	

No.	Matter	Applicant's Response
	<p>I have read the applicant's point 26. I do not consider it to be a meaningful response to my written representation.</p> <p>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."</p> <p>The applicant's report then stated in "Table 10.65 - Summary of effects" that the construction noise would be a <b>major adverse effect</b>. 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.</p> <p>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."</p> <p>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.</p>	

No.	Matter	Applicant's Response
	<p>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."</p> <p>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.</p> <p>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 11 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.</p>	<p>The resultant effect is based on professional judgement. Given the stage of the proposals i.e outline, limited information regarding the exact construction plant/methods is available. In reality, the impact of construction noise is likely to be between the average and worst-case scenario. There is a requirement for construction noise monitoring as part of the DCO and any impacts and mitigation requirements will be controlled through the CEMP (document reference: 17.1B).</p>



No.	Matter	Applicant's Response
31	<p data-bbox="293 244 965 276"><b>Assessment of Operational Maximum Noise Levels</b></p> <p data-bbox="293 323 1279 627">The applicant's response is: "Table 10.8 has been derived on the basis of World Health Organization Guidelines for Community Noise 1999. The guidelines contain guidance on LAFmax noise levels during the night, the document draws upon guidance from Vallet and Vernet, which states: "For good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45 dB LAFmax more than 10-15 times per night". This is essentially therefore the criterion to which the table refers to and effectively defines the Significant Observed Adverse Effect Level (SOAEL)."</p> <p data-bbox="293 675 1267 866">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.</p> <p data-bbox="293 914 1279 1026">The applicant's responses strongly indicate the report is not considering the number of container placements and spreader impacts there may be during a night-time period.</p> <p data-bbox="293 1074 1178 1177">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.</p>	<p data-bbox="1312 244 1850 276">Please see response to ExQ 1.8.26 above</p>
32	<p data-bbox="293 1185 577 1217"><b>Window Attenuation</b></p> <p data-bbox="293 1265 656 1297">The applicant's response is:</p>	<p data-bbox="1312 1185 2152 1370">BS 8233 indicates a reduction in noise levels of 15dB through a partially opened window. Further research has been undertaken by The Building Performance Centre at Napier University, which was submitted to Defra (NANR116: Open/closed window research 'sound insulation through ventilated domestic windows</p>

No.	Matter	Applicant's Response								
	<p data-bbox="297 240 1285 312">“The applicant maintains that the reduction provided in the British Standard is the appropriate level to take.”</p> <p data-bbox="297 360 1285 507">This section set out BS 8233’s explanation that attenuation due to a partially open window is contingent upon a number of factors which can significantly reduce attenuation. The applicant is gambling on all of the following being true at all NSRs during all time periods:</p> <ul data-bbox="297 555 1267 818" style="list-style-type: none"> <li>● That no NSR would ever have any window types which would result in lower attenuation.</li> <li>● 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.</li> <li>● That no NSR would ever receive noise due to the proposals containing frequency content which would result in lower attenuation.</li> </ul> <p data-bbox="297 866 1267 1134">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 rail freight interchange proposals. I reiterate that the applicant’s report should have followed suit.</p> <p data-bbox="297 1182 1267 1326"><b>The applicant’s position is out of line with other rail freight interchange proposals, the applicant is knowingly disregarding the detail of BS 8233, and the applicant is knowingly choosing not to conduct a robust assessment.</b></p>	<p data-bbox="1317 240 2152 427">April 2007). A number of laboratory tests have been undertaken to measure the sound insulation provided by a number of window units, when open and closed. The below table summarises the results for three different types of openings.</p> <table border="1" data-bbox="1328 475 1664 679"> <thead> <tr> <th data-bbox="1328 475 1536 579">Opening Size</th> <th data-bbox="1536 475 1664 579">D<sub>n,e,w</sub> (C;C<sub>tr</sub>)</th> </tr> </thead> <tbody> <tr> <td data-bbox="1328 579 1536 616">50K (mm<sup>2</sup>)</td> <td data-bbox="1536 579 1664 616">19(0;-1)</td> </tr> <tr> <td data-bbox="1328 616 1536 652">100K (mm<sup>2</sup>)</td> <td data-bbox="1536 616 1664 652">18(-1;-1)</td> </tr> <tr> <td data-bbox="1328 652 1536 679">200K (mm<sup>2</sup>)</td> <td data-bbox="1536 652 1664 679">16(0; -1)</td> </tr> </tbody> </table> <p data-bbox="1317 695 2141 799">The above indicates that an open window typically provides a reduction greater than 15dB and therefore using a reduction of 15dB provides a defensible estimate.</p>	Opening Size	D <sub>n,e,w</sub> (C;C <sub>tr</sub> )	50K (mm <sup>2</sup> )	19(0;-1)	100K (mm <sup>2</sup> )	18(-1;-1)	200K (mm <sup>2</sup> )	16(0; -1)
Opening Size	D <sub>n,e,w</sub> (C;C <sub>tr</sub> )									
50K (mm <sup>2</sup> )	19(0;-1)									
100K (mm <sup>2</sup> )	18(-1;-1)									
200K (mm <sup>2</sup> )	16(0; -1)									

No.	Matter	Applicant's Response
33	<p><b>Burbage Common &amp; Woods</b>  This section set the scene at Burbage Common &amp; 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 LAeq values during those periods when trains passed by.</p> <p>The applicant noted that I didn't require a direct response to this section because it is sufficiently covered by other sections.</p> <p><b>Lack of Attenuation Corrections at Burbage Common &amp; Woods</b>  This section set out the report's wrongful behaviour regarding Burbage Common &amp; Woods, which follows the same pattern as the behaviour I objected to in earlier sections of my written representation.</p> <p>The applicant noted that I didn't require a direct response to this section because it is sufficiently covered by other sections.</p> <p><b>Related Mischaracterisation and Consequences of Decisions Involving Burbage Common &amp; Woods</b>  This section set out the following interlocking points:</p> <ol style="list-style-type: none"> <li>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.</li> <li>2. The report's attempt to claim the predicted noise at Burbage Common &amp; Woods would "not be out of character" with the current noise environment at Burbage Common &amp; Woods is wrong.</li> </ol>	<p>This point was addressed at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025).</p> <p>From observations undertaken during the site survey, the noise climate was noted to be dominated by distant road traffic, train</p>

No.	Matter	Applicant's Response
	<p>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.</p> <p>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.</p> <p>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 15 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.</p> <p>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.</p>	<p>pass-bys on the rail line and natural sources. Noise from future HGV movements, rail movements and engine noise from reach stackers and gantry cranes will be of a similar frequency and character as that already experienced in the area.</p> <p>A noise survey was undertaken to support the ES Chapter and it is the results of this survey which have been used to inform the assessment.</p> <p>The remainder of this comment was addressed at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025).</p>

No.	Matter	Applicant's Response
	<p>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.</p> <p>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.</p> <p><b>The applicant did not respond to this point. The applicant's response is: "Please see response to point 47."</b></p> <p>The applicant's response is not appropriate. The LA10 values measured by the NMPs related to Burbage Common (NMP3 &amp; ML2 in the PEIR) show values far below the values predicted due to the proposed A47 link road and the proposed operational noise. The character would be very different.</p>	
34	<p><b>Fundamental Incompatibility Between the Proposer's Measured Facts and the Proposer's Modelled Road Noise</b></p>	<p>This was addressed at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025).</p>

No.	Matter	Applicant's Response
	<p>This section explained that the road noise figures within the contour maps created by the applicant are significantly higher than those measured by noise monitoring positions relating to Burbage Common. I was specifically warning the applicant not to attempt to use their road noise contours to make claims about ambient sound levels because the applicant's contours were very obviously overstating the ambient sound of the distant road noise.</p> <p>The applicant's response is: "The issue is considered to be based around the disputed representative measured noise levels. Therefore, please refer to response to point 22."</p> <p>The applicant's point 22: "Further information to support the continued use of the measured ambient noise levels is provided specifically in pages 6 to 11 of the Written Statements of Oral Case ISH3 [Appendix F - Noise Assessment Update Note] (document reference: 18.7.6, REP3-061). Essentially, within that document, the NMP4 measurement data was compared against DEFRA strategic noise mapping and found that, with increased distance from the rail line moving north, receptors experience increased road traffic noise and therefore for NSRs represented by NMP4, the ambient noise levels from the mapping align with those used."</p> <p>The applicant's response is not appropriate. The applicant's noise assessment update note does not address NMP3 and its NSR 19 of Burbage Common &amp; Woods at all. We know what the distant road noise is during different time periods. It has been measured by NMP3. We know what the rail noise is during different time periods. It has been measured by NMP3.</p>	

No.	Matter	Applicant's Response
	<p>Moving 85 metres away from the railway line has no impact on the distant road noise, but has a large impact on the sound of the train pass bys.</p> <p>The applicant <b>absolutely must not</b> attempt to use the contour maps in the applicant's update note to make claims about the distant road noise or rail noise, because they are known to overstate ambient sound levels.</p> <p><b>The applicant needs to be returned to the measurements made by NMP3, and the applicant needs to apply attenuation corrections measured sound of the train pass bys, to attenuate them to NSR 19's location. This will generate representative ambient sound levels for NSR 19's location during the weekday and weekend daytime periods.</b></p>	
35	<p><b>Lack of Cumulative Impact Assessment</b></p> <p>The applicant's response is: <i>“Further information regarding the cumulative effect of the development can be found in the Technical Note (Noise and Vibration Scott Schedule) (document reference: 19.1B) accompanying the SoCG (V09) with BDC and HBBC.”</i></p> <p>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.</p> <p>I don't consider the applicant's comment to be a meaningful response to my written representation. The applicant's noise report does not include the calculations I described.</p>	<p>This comment is addressed through the Technical Note (Noise and Vibration Scott Schedule) (document reference: 19.1B) accompanying the SoCG (V09) and responses provided at ISH6 which are summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025).</p>

No.	Matter	Applicant's Response
	<p><b>The Black Box &amp; Conclusion</b></p> <p>My written representation contained a section titled “The Black Box &amp; 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.</p> <p>The applicant's response has been noted and no further correspondence with the applicant is expected on this section.</p>	
<b>William David Moore - Post-hearing submissions including written submissions of oral cases</b>		
36	<p>Statements Made At ISH6 by William David Moore</p> <p>This document contains three sections.</p> <p>Section 1 is a correction of an action point written by the Examining Authority.</p> <p>Section 2 is a clarification of a misunderstanding which I believe occurred during the meeting.</p> <p>Section 3 is a copy of the written text which I read aloud at ISH6.</p>	
37	<p><b>Section 1</b></p> <p>In Actions arising from Issue Specific Hearing 6 (Traffic &amp; Transport, and Noise), the Examining Authority wrote:</p> <p><b>“137. The Applicant is to provide a comprehensive response to Mr Moore's D4 submission [REP4-204] addressing each of the 8 points in relation to traffic noise used in lieu of unattenuated rail noise.”</b></p> <p>This is not what I wrote and what the Examining Authority has chosen to write does not make sense.</p>	<p>The eight points were addressed at Deadline 5 (Applicants response to Deadline 4 Submissions - Document 18.17.</p> <p>The remaining points around ambient noise levels have previously been addressed at Deadline 5 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] (document reference: 18.17, REP5-050) and through Issue Specific Hearing 6, summarised in the Applicants Written Statement of Oral Case (document reference 18.15, REP5-025).</p>



No.	Matter	Applicant's Response
	<p>The road and rail noise contours introduced by the applicant indicate sound levels far higher than those measured by NMPs. <b>The applicant's contours should not be used in lieu of measurements made by NMPs.</b></p> <p>We know what the distant road noise is during different time periods, it has been measured by NMP4 &amp; NMP3. We know what the rail noise is during different time periods, it has been measured by NMP4 &amp; NMP3.</p> <p>But the NSRs aren't ~12 metres from the railway line <b>so attenuation corrections need to be applied to the measured sound of the train pass bys to establish ambient sound levels at the NSRs during different time periods.</b></p>	
<p><b>38</b></p>	<p><b>Section 2</b></p> <p>During the meeting, I spoke of there being 32 additional freight train movements per day. The applicant kept speaking of 16 additional freight trains per day.</p> <p>Each additional freight train would go into the HNRFI and then come out again, each additional freight train would pass by twice, so there would be 32 additional freight train movements by 16 additional freight trains.</p> <p>I think the applicant believed I was claiming there would be 32 additional trains per day, which is not what I said.</p> <p>The cumulative impact assessment for Burbage Common should include the worst case scenario for the number of additional off-site train movements past Burbage Common as those additional freight trains would be arriving and departing from the HNRFI</p>	<p>To be clear, the noise and vibration assessment has considered 16 additional freight trains which results in 32 additional movements.</p> <p>This was addressed at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025).</p>

No.	Matter	Applicant's Response
39	<p data-bbox="297 240 421 268"><b>Section 3</b></p> <p data-bbox="297 320 1279 389">This is a copy of the written text which I read aloud at Issue Specific Hearing 6 (ISH6) on 24th January 2024.</p> <p data-bbox="297 440 1039 467">“The applicant’s noise assessment update note is a mess.</p> <p data-bbox="297 518 1272 587">The update doesn’t address NMP3 and its NSR 19 of Burbage Common and Woods at all.</p> <p data-bbox="297 638 1272 707">It doesn’t address all the NSRs associated with NMP4. It only addresses the NSRs which it thinks are on Billington Road East.</p> <p data-bbox="297 758 1279 900">The update misstates the locations of NSRs 2, 3 &amp; 4. The update thinks they are on Billington Road East, but they aren’t. They should not have been included in Table 5 and the claimed ambient sound levels at those NSRs can be discarded.</p> <p data-bbox="297 951 1285 1179">The applicant has attempted to introduce rail noise contours to claim all the NSRs in Table 5 experience 50 dB of ambient rail noise, but if you look at the contours and the NSR locations, you’ll see that every single one of the NSRs are outside the rail noise contours. Yet the applicant has attributed 50 dB of ambient rail noise to each NSR in Table 5. The applicant shouldn’t have done that, because they are all outside the contours.</p> <p data-bbox="297 1230 1272 1334">On the claimed ambient road noise, the applicant’s own report states that the ambient sound levels predicted by the applicant’s road noise model are higher than those measured by noise monitoring positions.</p>	<p data-bbox="1317 240 2152 389">This was addressed at Deadline 5 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] and at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15. REP5-025)</p>

No.	Matter	Applicant's Response
	<p>At NMP5, in close proximity to the M69, the ambient sound levels predicted by the applicant's road noise model were 7 dB above the levels measured by NMP5. At NMP1, also in close proximity to the M69, the predicted daytime ambient sound levels were 5.4 dB above the levels measured and used in the report. The predicted night-time ambient sound levels were 6.4 dB above the levels measured and used in the report.</p> <p>The applicant knew their road noise model predicts levels which are higher than those measured by NMPs, and yet the applicant has still attempted to use their road noise model to make definitive claims about ambient road noise. The applicant shouldn't have done that, because the applicant's road noise model is known to overstate ambient sound levels.</p>	
<b>Malcolm Bryan Lees - Comments on any additional submissions received by Deadline 4</b>		
40	<p>First to summarise events/changes during the period of the examination :-</p> <p>1) Several spells of heavy rainfall have tested the capacity of the existing ditch/stream beds, with temporary overflows of banks at Bostock Close and the lower fields in the fishponds (crematorium) area.</p> <p>2) At the same time overground flows have been seen into the SSSI woodland along the line of the footpath U50/1 into the clear ditch through the wood. Photos available.</p> <p>These occasions have shown a) there are additional natural "run-offs" not shown in the applicant's presentation which once cut-off by the proposed ground level changes will all be channelled in the same direction b) The planned SUDS capacity to overflow appears to have been reached several times in the last few months.</p>	<p>The Applicant has undertaken detailed flood modelling of the watercourses within and surrounding the site, the results of which have been shared and agreed with the Environment Agency and Lead Local Flood Authorities (Leicestershire and Warwickshire) via Statements of Common Ground - Reference documents 19.3, 19.6 &amp; 19.9 respectively. The flood modelling reflects a 1 in 100-year flood event with an allowance for climate change based on EA recommendations – the reason for this is to ensure that the development remains safe throughout its design life including the gradual effect of climate change, without increasing flood risk elsewhere. Through the inclusion of Sustainable Drainage Systems (SUDS) within the proposals, peak runoff is managed such that in more extreme events flows leaving the site are actually reduced. Whilst recent rainfall has been substantial, it is not in excess of that used within the</p>

No.	Matter	Applicant's Response
	<p>I maintain the same opinion re groundwater flows and storage expressed earlier in the consultation</p> <p>Later presentations by the applicant :-</p> <p>There has been the possible addition of earth bunds each side of the link road down to the A47 to protect the tranquillity of Burbage Common cafe and grounds. I think there was a qualification "if feasible". I would request this is essential and should clearly state height and length relative to the final road level. The operational noise calculations have a mix of BS and ISO standards quoted which seems strange. We have been advised ISO 9613-2 includes a factor to account for the "downwind" effect. If this applied to all the calculations, they are then all inflated by an "unknown" (?) amount. The "downwind" effect depends on direction – in our case S-SW is the prevailing wind direction and as such for me the A47 noise is increased, but the M69 and rail noise is reduced. The proposal introduces totally new point sources of noise and therefore it will be "all new noise" in specific wind directions within Elmesthorpe and Burbage Common particularly. I would request the method used for the EM Gateway "wind effect" calculation needs to be used for this proposal.</p> <p>The applicant's calculation of average noise included ignoring a night time "no train" survey period. It obviously was a real result and to a lesser degree I would suggest also applies to the A47 noise profile. I would request the examination does include these confirmed "quiet" spells when making the comparison with the 24/7 period of proposed operation.</p> <p>ISO 9613-2 appears to be for "pure tone" noise calculation. I do not agree with the applicant's decision that loading/unloading containers be</p>	<p>modelling and drainage/SUDS design and as such the approach is robust.</p> <p>The closest point of any proposed ground level changes to Burbage Wood and Aston Firs (being embankments to the proposed roads in the site) is around 90m from the edge of the wood, and topographically the existing ground levels fall into the site at this point (towards the north-east) and away from the SSSI. Therefore, the Proposed Scheme will not impact the natural drainage catchment of Burbage Wood and Aston Firs. Regarding groundwater at the SSSI, intrusive site investigations have been undertaken which have identified underlying cohesive geology. The cohesive geology means that there is not a significant groundwater reservoir or flow pathway that could be negatively impacted by the development. Natural England have confirmed that they are comfortable that the Proposed Scheme will not negatively affect Burbage Wood and Aston Firs SSSI.</p> <p>These points were addressed at Deadline 5 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] (document reference: 18.17, REP5-050) and at ISH6</p>

No.	Matter	Applicant's Response
	considered a "continuous noise". Certainly not watching and listening to the operation at EM Gateway, with stop/start driving and frequent horn signals to the lorry drivers	
<b>Dr David Moore - Comments on any additional submissions received by Deadline 4</b>		
41	<p><b>Baseline Noise Conditions</b></p> <p><b>1.8.2. Ambient Noise Levels</b></p> <p>"A) Following discussions at ISH3, can the Applicant provide written clarification as to why noise collected at NMPs has not been attenuated for both distance and topography in order to decipher current ambient noise levels at NSRs and why assessments do not need to be altered to account for this."</p> <p>Tritax have not responded to the Examining Authority's Question 1.8.2 about the noise collected at NMPs. Instead they have replied very obliquely by reference to an Update Note, Document Reference 18.7.6 "Written Statement of Oral Case ISH3 (Appendix F – Noise Assessment Update Note), reading from the bottom of their page 6 onwards.</p> <p>In their Update Note, Tritax seek to introduce two sets of data, the first being Rail Noise data, and the second Road Noise data. Tritax then go on to combine the two logarithmically to arrive at new Noise Data overall. I consider each of these in turn below.</p>	This was addressed at Deadline 5 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] and ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025)
42	<p><b>Rail Noise Data</b></p> <p>Rail Noise is routinely characterised as a Line Source of Noise because, unless conditions (such as speed or gradient) vary significantly along the length of the rail line, then the trackside Rail Noise is uniform along that</p>	These comments were addressed at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025)

No.	Matter	Applicant's Response
	<p>stretch of line. This is very well understood in the Rail Industry , and is one of the central tenets of "Calculation of Rail Noise" (CRN).</p> <p>There are no such variations in the length of line we are discussing here. Therefore the Rail Noise along that length of line is uniform.</p> <p>In their Noise and vibration report proper, Tritax measured Rail Noise at Noise Monitoring Position NMP4 at the trackside over a continuous period of some seven days. As such, that measured data may be viewed as the "Gold Standard" and together with the data from the other NMPs forms a foundation of Tritax's report.</p> <p>Given the obvious nature of the above, it is very difficult to understand why Tritax did not simply use the very detailed Rail Noise data they had already gathered at NMP4 to describe the Rail Noise over the short distance along the track that they discussed in their Update Note.</p> <p>The Rail Noise data that Tritax seek to introduce in their Update Note is however very much higher than the NMP4 data Tritax measured in their Noise and vibration report.</p> <p>The Rail Noise data at Tritax seek to introduce in their Update Note is in fact an extract taken from a national plot from a website provided by a company called Extrium that indicates DEFRA (Department of the Environment for Food and Rural Affairs) data. It is intended as a general guide to noise in the vicinity of railways. I show below two Figures taken from Tritax's Update Note. Figure 1 shows their DEFRA Rail Noise Data during daytimes, and Figure 2 during night-times</p>	

Figure 1: Daytime noise levels from rail traffic, dB LAeq,16h

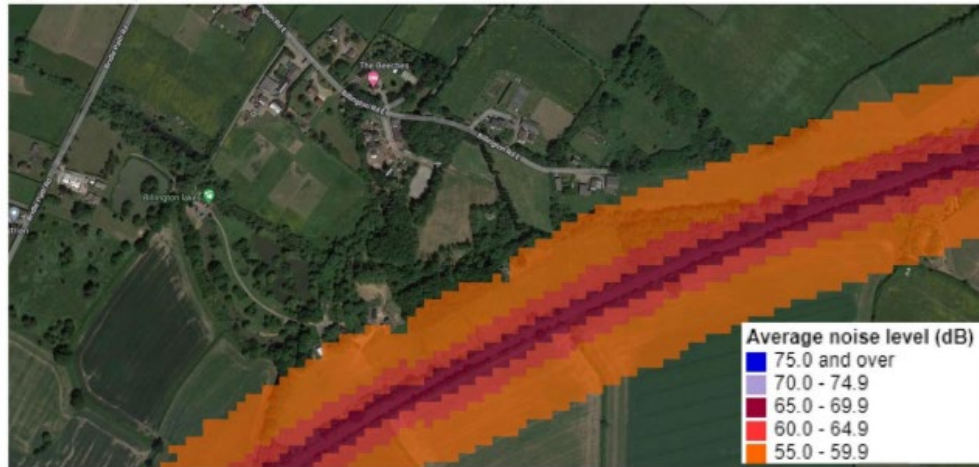
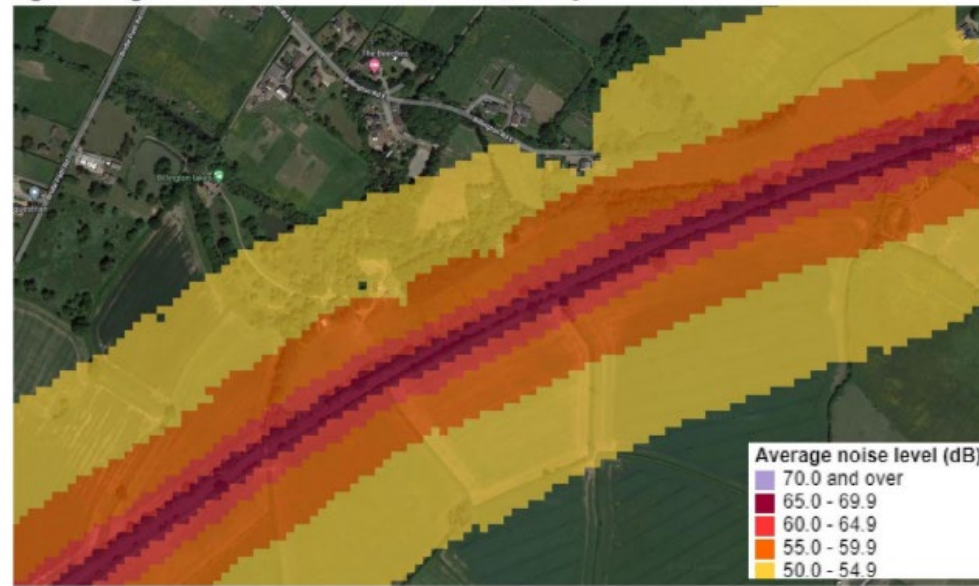



Figure 2: Night-time noise levels from rail traffic, dB L<sub>night</sub>



No.	Matter	Applicant's Response
	<p>(In these two Figures you can clearly see the noise corridor, with its characteristic “bands” which are caused by the Attenuation with Distance from the railway that occurs as you move away from the rail line. As you move further from the rail line, you can see that the rate of this Attenuation with Distance progressively reduces such that each successive outward “band” is typically twice the width of the previous inner one.)</p> <p>Now, this provides a very descriptive picture of the Attenuation Process that naturally occurs. But you begin to see warning signs when you compare the daytime noise contour “bands” shown in Figure 1 with those shown for the night-time in Figure 2. Although you would expect to see a considerable narrowing during the quieter night-time period, you can actually see no obvious change between the two. (For context here, NMP4 indicates a night-time noise reduction of 3dB compared with daytime, so we would expect to see the width of each of the bands (and therefore also the overall width of the noise corridor) to reduce by a factor of 2.)</p> <p>Although I cannot actually show this level of detail here, I have gone onto the Extrium website and compared online the widths of the noise corridors (as bounded by the orange bands) in Figures 1 and 2 during daytime and night-time respectively. The night-time width is actually some 8% greater, and so indicates a noise increase at night-time. So we are clearly dealing with broad-brush data here.</p> <p>But it's when you actually come to look at the dB values in the Table Keys that the alarm bells really start to ring. For example, in Figure 2, the boundary between the orange and the yellow bands is indicated at 55.0dB. But this is almost the same night-time Noise level of 56.3dB that was measured at NMP4 at a location just 12 metres from the track!</p>	



No.	Matter	Applicant's Response
	<p>Further analysis indicates that in comparison with the precise "Gold Standard" Noise measurements performed at NMP4 over a period of seven days, the data in Figures 1 and 2 overstates the Train Noise levels by approximately 12dB during the daytime, and rather more at night-time. So the values in the dB Keys in Tritax's Figures 1 and 2 need to be adjusted downwards by 12dB accordingly.</p> <p>Or, for a visual indication, this means that the width of each of the bands (and therefore the overall width of the noise corridors) shown in Tritax's Figures 1 and 2 should be reduced by a factor of twelve. This, I believe, contracts the whole of the noise corridor banding shown in Figure 1 down to a narrow ribbon that is fully contained within the boundary of the railway property.</p> <p>A yet further failing of the DEFRA Rail Data that Tritax seek to introduce in their Update Note is that it provides no information in respect of the much quieter periods of the weekends, and especially the weekend night-times, when very few, if any, trains run, and when the contours Tritax have shown will simply disappear because there is no Rail Noise at all.</p> <p>Now, in their Noise and vibration report proper, Tritax referred in their Paragraph 10.252 and their Footnote 41 to the Extrium website and to the Strategic DEFRA mapping, and stated "the DEFRA mapping is produced at a strategic level and therefore not accurate enough to design against". But Tritax have obviously not thought fit to repeat that warning when they seek to actually introduce this data in their Update Note. And were Tritax aware of this discrepancy when they wrote their Update Note?</p>	

No.	Matter	Applicant's Response
	<p>Whatever the answer to that question might be I think that, at root, the problem lies in trying to use general guidance data for a purpose for which it was never intended.</p> <p>Finally, in order to underline the point I made earlier concerning the <b>uniformity</b> of the Rail Noise over the length of line we are discussing here, I show below an extract from the Extrium website that displays the daytime DEFRA Rail Noise data over the length of line, extended to include NMP4. The <b>uniformity</b> of the Rail Noise over that whole stretch of line is clearly evident.</p> 	

No.	Matter	Applicant's Response
	<p>What all this means in practical terms is that, in Tritax's Update Note, Table 4, the values shown in the second column headed "Indicative Rail Traffic dB LAeq,T" are all invalid.</p> <p>I have already demonstrated in my Comments Document of the 14th November 2023, and also in my Response to the Examining Authority's Written Questions of the 9th January 2024, that the Attenuation of Rail Noise can be appropriately modelled in accordance with BS4142 and the "Calculation of Railway Noise" (CRN) using the Noise Monitoring NMP4 results that Tritax have already disclosed in their Noise and vibration report proper and their ES Appendix 10.10 "Summary Results". My Response to the Examining Authority's Written Questions also outlines cross-checks that provide strong confirmation of both the NMP4 data itself, and the accuracy of the CRN modelling.</p>	
43	<p><b>Road Noise Data</b></p> <p>Although its provenance seems unclear, it is my understanding that the Road Noise data that Tritax have used in their Update Note has, like their Rail Data, ultimately been sourced from DEFRA. But whereas their Rail Noise data was taken directly from the Extrium website in the ready form of Noise Contour maps, for the Road Noise Tritax have instead sourced the data in the form of Traffic Flows. To use this data, Tritax have then themselves created a Noise Model, from which in turn Tritax have then predicted the Noise Contour maps shown in Figures 3 and 4 of their Update Note.</p>	<p>This was addressed at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025)</p>

No.	Matter	Applicant's Response
	<p>The first thing to understand here is that because we are now considering Road Noise alone, there is no component of Rail Noise included. So the railway is therefore considered to be silent.</p> <p>Now, throughout their 7-day recording periods, NMP3 and NMP4 both acquired the Noise Data indicated in Tritax's ES Appendix 10.10 "Summary Results" in graphical form, the dB values of which are shown at 15-minute intervals. For each of these NMPs, this includes intervals during which there were Train Pass Bys, and also intervals when there were no Train Pass Bys. In accordance with BS4142, this data can be therefore be used to indicate the Road Noise levels prevailing in those intervals where no Train Pass-Bys occurred, these Road Noise levels being respectively in the range of 39dB to 41dB for NMP3, and 41dB to 44dB for NMP4 during the Weekday daytime periods.</p> <p>When we consider the roads that principally contribute to the Road Noise at NMP4 and the surrounding region, we find there's the M69 at 1.21 kilometres away, and the (obviously much smaller) B4668 at 1.06 kilometres away.</p> <p>Now, because the M69 is so far away, this means that if we are standing at NMP4 and take a 1- metre stride in the direction away from the M69, we find that this makes only about 1/100th of a dB reduction to the noise contribution received from the M69. And for the B4668, which is almost as far away from NMP4 as the M69, the corresponding change is only 1/80th of a dB.</p> <p>And because the M69 and the B4668 lie in opposite directions, one of these is a reduction, and the other is an increase, so the two tend to cancel each</p>	

No.	Matter	Applicant's Response
	<p>other out, rather than add together. And, in the same way that we have observed for Rail Noise (which, like Road Noise, is a Line Source of Noise), we find that moving in a direction parallel to these two roads does not in itself affect the noise contribution received from either of them.</p> <p>As a result of these two effects, we find that both NMP3 and NMP4 lie within a very "flat" Road Noise profile, in which movements in all directions (both North-to-South, and East-to-West) have little effect on the local Ambient Road Noise value.</p> <p>A very similar situation also prevails for the region which Tritax have shown in their Figures 3 and 4, which lies a little way to the North-East of NMP4 and which show Tritax's predicted Road Noise levels for the Weekday daytime and Weekday night-time respectively. The dB contour bands shown in Figures 3 and 4 are very tight at only 2 dB, and what we are actually seeing here is again a very "flat" Road Noise profile in all directions, very similar to the "flat" profiles described at NMP3 and NMP4, and again for the similar reason that the roads are so far away.</p> <p>To make matters clearer here, I have prepared a mapping which shows NMP3, NMP4, and Tritax's Figure 3 all in the same Figure. This is shown below.</p> <p>With reference to the Figure, we can see that the Road Noise levels at NMP3 and NMP4 are very similar to each other, differing by only 2dB or 3dB despite their distance apart. This is exactly as would be expected in view of their very considerable distance from both the M69 and the B4668, and the very "flat" noise profile this would bring about. And of course, Figure 3 also</p>	

No.	Matter	Applicant's Response
	<p>displays the same type of very “flat” noise profile, again owing to its distance from the M69 and the B4668.</p> <p>But the big surprise comes when we compare the measured Ambient Road Noise levels at NMP3 and NMP4 with Tritax’s predicted Road Noise levels in Figure 3. Here we find that there is a major disjoint of 12dB between the measured Road Noise value at NMP4 (at between 41dB and 44dB) and Tritax’s predicted Road Noise values (at between 54dB and 55.9dB). And, even more surprising is that this occurs over a very moderate distance and in the very “flat” noise environment determined by the M69 and the B4668 that are both over a kilometre away!</p> <p>In addition to the Rail Noise Monitoring that Tritax performed at NMP4 and NMP3 and referred to above, Tritax also performed Road Noise Monitoring at NMP1, again over a 7-day recording period. These measurements are also relevant to this discussion, and I have accordingly included NMP1 in my Figure. (The value of 53.6dB shown is taken from Table 10.43 of Tritax’s Noise and vibration report, which indicates the Weekday daytime Noise levels for those NSRs associated with NMP1.)</p> <p>In the case of NMP1, the Ambient Noise level of 53.6dB includes the Train Pass Bys (there being no way of removing the Rail Noise from the data made available by Tritax). And of course it also includes the local roadside noise on Burbage Common Road. So the Ambient Noise level of 53.6dB indicated at NMP1 in my Figure will be rather higher than the Actual Road Noise in the surrounding area.</p> <p>With reference to the Figure, you may see that the measured Noise Level at NMP1, which is rather higher than the Actual Road Noise in the surrounding</p>	

No.	Matter	Applicant's Response
	<p>area, is in fact 3.4dB lower than Tritax's predicted Road Noise (of between 56dB and 57.9dB) shown in their Figure 3, despite the fact that NMP1 is only a third of the distance away from the dominating M69!</p> <p>In view of the all of the above, Tritax's predicted Ambient Noise Levels indicated in their Figures 3 and 4 require further investigation. When compared with the "Gold Standard" noise measurements at NMP3, NMP4, and NMP1, and taking into consideration the flat local noise profile, they appear inexplicable.</p>	
<p><b>44</b></p>	<p><b>Update Note contradicts Noise and vibration report</b></p> <p>Finally with regard to the Examining Authority's Question 1.8.2 to the Applicant, there is a yet further issue with regard to Tritax's Update Note, Document Reference 18.7.6 "Written Statement of Oral Case ISH3 (Appendix F – Noise Assessment Update Note) which I also need to cover here.</p>	<p>This was addressed at Deadline 5 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] and at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025)</p>

No.	Matter	Applicant's Response
	<p>In their Noise and vibration report, Paragraphs 10.173 to 10.175, Tritax use the low Noise Levels measured at NMP4 to try to justify their move away from the (almost universally used) Background Noise levels measured at NMP4 and use instead the Ambient Noise levels measured at NMP4. And they then apply the Ambient Noise levels measured directly at the trackside at NMP4 to all of the NSRs that are associated with NMP4 on the basis that NMP4 is “representative” of all of those NSRs, a term that Tritax interpret very selectively to their own advantage. In doing so, Tritax gain an advantage of 20dB (plus another 5 or 10dB for Rating Penalties) that they maintain throughout the remainder of their Noise and vibration report. I have described this several times previously.</p> <p>What we see in their Update Note is that Tritax are now trying to show that the Ambient Noise level at NMP4, far from being “representative” of the NSRs, is in fact much lower than the Ambient Noise levels at those NSRs. But, at the same time, Tritax are still trying to maintain that the (Gold Standard) NMP4 is still “representative” of the NSRs for the purposes of their Paragraphs 10.173 to 10.175, in order to allow Tritax to maintain the advantage of 20dB (plus another 5 or 10dB for Rating Penalties) that they argued for in their Noise and vibration report!</p> <p>Tritax appear to be engaged in some very convoluted practices here, and offer nothing in the way of explanation, justification or objectivity. But it's all decidedly to their own advantage</p>	
45	<p><b>1.8.3. Noise Attenuation</b></p> <p>“If attenuation identified at ExQ1.8.2 needs to be applied for the specific sound recorded at the NMPs to establish sound experienced at NSRs, are the documents “Calculation of Railway Noise”, published by the Department</p>	<p>This was addressed at Deadline 5 18.17 Applicant's Response to Deadline 4 Submissions [part 11 - Response to Mr Moore and Dr Moore] and at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025).</p>



No.	Matter	Applicant's Response
	<p>of Transport in 1995, and the "Calculation of Road Traffic Noise", published by the Department of Transport, Welsh Office, in 1988 relevant to perform this? If so, how would these affect assessments?"</p> <p>Tritax have avoided answering this question, citing their Document Reference 18.7.6 "Written Statement of Oral Case ISH3 (Appendix F – Noise Assessment Update Note), the contents of which I have heavily disputed above.</p> <p>It is worth noting that in their Noise and vibration report, Paragraph 10.84, under the heading of "Other Relevant Policy, Standards and Guidance", Tritax have listed both the "Calculation of Railway Noise" and the "Calculation of Road Traffic Noise" documents.</p> <p>Tritax have also made some use of CRN in their calculation of Noise from Off-Site Rail Movements in their Paragraphs 10.206 to 10.212. And in Paragraph 10.210 they state "As CRN does not include current rail stock, reference has also been made to the additional guidance published by DEFRA 'Additional railway noise source terms for Calculation of Railway Noise 1995</p>	
46	<p><b>1.8.18 Tabular Comparison for Noise Effects</b></p> <p>"It is stated that there are a number of deficiencies in the applicant's methodology for noise assessments and corrections to dB levels are suggested accordingly. Could Dr David Moore and Mr William Moore provide a tabular comparison of the overall effects in terms of noise at NSRs between the Applicant's stated levels of effect and those predicated using suggested revised methodologies?"</p>	

No.	Matter	Applicant's Response
	<p>As you may see from the above, the Examining Authority directed this Question 1.8.18 to me. I responded to the Examining Authority's Question in my "Response to the Examining Authority's Written Questions and Request for Information ExQ1 Question 1.8.18 regarding the Applicant's methodology for noise assessment in the proposed Hinckley National Rail Freight Interchange" of Tuesday the 9th January 2024.</p> <p>In the Issue Specific Hearing (ISH6) on Traffic and Transport, and Noise on Wednesday the 24th January 2024, the Examining Authority asked Tritax:</p> <p>"Doctor Moore has produced a Table in response to our Written Questions for noise levels at NSRs in the absence of train movements. That is Table 1a in Document REP4-195. It is stated that this constitutes 96% of the total time. It is therefore stated that these are the noise levels presently ruling at the NSRs for 96% of the time, and it is against these levels that noise from the proposed development should be judged. Can I have the applicant's thoughts on that please?"</p> <p>Tritax's response to the Examiner's Question was as follows:</p> <p>"Yes, it's again, go back to the to the point of how noise is measured. And it's measured as an equivalent noise level over a set period of time. You know, if we were working on a basis that there were no train Pass Bys 96% of the time, that would have been picked up in the noise survey, and that would be reported in the levels. As it is, it hasn't. And it's to do with how noise is measured and how it's reported."</p> <p>British Standard BS 4142:2014+A1:2019 "Methods for rating and assessing industrial and commercial sound" describes in detail the measurement of</p>	<p>BS4142:2014 states that 'where the initial estimate of the impact needs to modified due to the context, take all pertinent factors into consideration, including the following;</p> <ul style="list-style-type: none"> <li>• The absolute level of sound;</li> <li>• The character and level of the residual sound compared to the character and level of specific sound;</li> <li>• The sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already</li> </ul>

No.	Matter	Applicant's Response
	<p>Background Noise and its comparison with the Specific Sound generated by the Proposed Development to which appropriate Rating Penalties have been applied.</p> <p>BS 4142:2014+A1:2019 neither describes nor indeed even mentions any possibility that Background Noise could be replaced nor even supplemented by any other parameter.</p> <p>BS 4142:2014+A1:2019 defines Background Noise LA90,T as the:</p> <p>“A-weighted sound pressure level that is exceeded by the residual sound at the assessment location for 90% of a given time interval, T, measured using time weighting, F, and quoted to the nearest whole number of decibels.”</p> <p>Tritax have taken the time interval T to be 1 hour during daytime, and 15 minutes during nighttimes.</p> <p>What this actually means in respect to the NMP3 and NMP4 at the side of the rail track is that in the measurement of the Background Noise level all of the Train Pass Bys would be immediately excluded (as they are noisy), and the Background Level would be taken from the lowest 10% of the time, during which there would of course be no Train Pass Bys.</p> <p>Background Noise is the parameter against which Proposed Development Noise is compared because it correctly represents the way that such Proposed Development Noise is judged against the Baseline Conditions by Residents and others at the NSRs. And this is why BS 4142:2014+A1:2019 always refers to Background Noise in this way.</p>	<p>incorporate measures that secure good internal and/or outdoor acoustic conditions.</p> <p>Notwithstanding the above, the resultant operational noise levels have been assessed in accordance with BS4142, BS8233 and IEMA to be robust. The assessment shows that with mitigation in place, noise levels are predicted to fall below the Significant Observed Adverse Effect Level at all nearby receptors in the assessments undertaken.</p> <p>The operational phase noise assessment methodology is agreed through the Statement of Common Ground with BDC and HBBC.</p>

No.	Matter	Applicant's Response
	<p>In my Written Response to the Examiner's Question 1.8.18, I highlighted that Residents and others would judge the Proposed Development Noise against the Baseline Conditions prevailing for 96% of the time (that being, when no trains are present) because it is so easy, faced with that situation, to understand what their reaction would be, and what the ramifications would be should the Proposed Development be built.</p> <p>And in fact, you will see from the foregoing that the Background Noise level goes much further than excluding only the 4% of the time when Train Pass Bys are occurring. The Background Noise not only excludes all the of the Train Pass-Bys but also the other highest 86%, so reducing the dB level even further below those I indicated in my Table 1a.</p> <p>And of course, Tritax measured the Background Noise levels at all of the NMPs over a sustained period, but then have tried to move away from Background Noise levels in order to secure a huge advantage for themselves in their Noise and vibration report. I have described this already several times.</p> <p>With all of this as a backdrop, it was both disingenuous and misleading for Tritax to have replied as they did to the Examining Authority's Question. They know all about Background Noise, how it is measured, and why it is used</p>	
<p><b>47</b></p>	<p><b>Construction Noise</b></p> <p><b>1.8.4. Construction Noise</b></p>	<p>The resultant effect is based on professional judgement. Given the stage of the proposals i.e outline, limited information regarding the exact construction plant/methods is available. In reality, the impact of construction noise is likely to be between the average and worst-case scenario. There is a requirement for construction noise monitoring as part of the DCO and any</p>

No.	Matter	Applicant's Response
	<p>“Likely noise effects at NSRs have been considered on an ‘average case’ and a ‘worst case’ scenario. For the ‘average case’ an ‘approximate centre point of the closest area of construction’ has been used.</p> <p>A) Can the Applicant explain how this centre point was established for the purposes of assessments?</p> <p>B) Further, can it identify the size of the closest area of construction and its distance from site boundaries, including the reasons for such measurements, noting that Interested Parties ([REP1-109] to [REP1-113]) consider average calculations to be correct only when plant is grouped at 300m from the site boundary and that the average area of construction is around 600m in width? If this is correct, what are the implications for noise assessments?”</p> <p>In their reply, Tritax have not answered the Examining Authority’s questions regarding the dimensions and grouping they have used in their “average case” scenario. This means that the width of their “closest area of construction” in their “average case” scenario is still not known, and so the distance of the point at which Tritax, in their “average case” scenario, have grouped plant and machinery away from the site boundary can still not be calculated.</p> <p>The Attenuation over Distance from the 90dB in Tritax’s “worst case” scenario, which is reduced down to 58dB in their “average case” scenario, indicates that the centre point of the grouped plant and machinery is at 300 metres distant from the site boundary. In Tritax’s “average case” scenario, no item of plant or machinery would therefore be allowed closer to the site</p>	<p>impacts and mitigation requirements will be controlled through the CEMP (document reference: 17.1B).</p>

No.	Matter	Applicant's Response
	<p>boundary than 300 metres. This makes Tritax's "average case" scenario an extremely unrealistic one, and strongly to Tritax's advantage.</p> <p>In their response to the Examining Authority's Question 1.8.17, in relation to the level of Uncertainty in Tritax's CadnaA Noise Modelling Calculations, Tritax stated:</p> <p>"The level of uncertainty from the calculation is low. The resultant levels have been derived using acoustic modelling software that uses <b><i>industry recognised standard ISO 9613-2 calculation method...</i></b>" (the bold italics are mine)</p> <p>It is appropriate at this point to quote from that very same Standard ISO-9613-2-1996 "Acoustics – Attenuation of sound during propagation outdoors" - Part 2: General method of calculation, which warns:</p> <p>"a group of point sources may be described by an equivalent point sound source situated in the middle of the group, in particular if</p> <p>a).....</p> <p>b).....</p> <p>and c) the distance d from the single equivalent point source to the receiver exceeds twice the largest dimension Hmax of the sources (<math>d &gt; 2H_{max}</math>).</p> <p>If the distance d is smaller (<math>d \leq 2H_{max}</math>), or if the propagation conditions for the component point sources are different (e.g. due to screening), the total sound source shall be divided into its component point sources."</p> <p>In our case, assuming the size of their "closest area of construction" (which Tritax have still not given) is 600 metres square, then the diagonal Hmax is</p>	<p>As stated at ISH6, ISO-9613-2-1996 is not the correct calculation of sound propagation of construction noise.</p>

No.	Matter	Applicant's Response
	<p>approximately 850 metres. This means that d, the distance of the NSR from the centre of the site, must be in excess of 1.7 kilometres for Tritax's "average case" calculation to be applicable! For all the NSRs that are considered here, d is of course in all cases very much less than 1.7 kilometres, and so the items of plant need to be considered individually.</p> <p>Therefore Tritax's "average case" scenario is both unrealistic and invalid.</p> <p>The diagram that Tritax provided in their response is unclear.</p> <p>1.8.5. Construction Noise Modelling            1.8.6. Construction Noise Modelling – Plant Machinery            1.8.7. Construction Noise Modelling            1.8.8. Construction/Operational Activity            1.8.9. Cumulative Effects            1.8.10. Predicted Unmitigated Noise Assessments</p> <p>I will comment collectively upon the six individual Questions above that the Examining Authority have put to Tritax, because in each case Tritax have in essence replied that their Noise and vibration report is in compliance with BS5228-1. And indeed they have indicated that their activities are constrained by and limited to the contents of BS5228-1. In its opening pages, BS 5228-1 "Code of Practice for Noise and Vibration Control on Construction and Open Sites" states that it "<b>gives recommendations for basic methods</b> of noise control relating to construction sites". (the bold italics are mine)</p> <p>Overall, it aims to provide a simple and accessible guide to the noise levels that will prevail around construction and open sites, which are often small and fast-changing, so that elaborate calculations are inappropriate.</p>	

No.	Matter	Applicant's Response
	<p>For example, the guidance that it provides for the attenuation of sound as it propagates over distance is very basic, and amounts to no more than a single chart with two lines corresponding to the two extremes of “hard ground” and “soft ground” conditions respectively. And it includes no guidance on the adjustment or rating of noise levels for acoustic character.</p> <p>The Proposed Development is however extremely extensive, and the resulting Construction Noise will extend for very many years, perhaps beyond the span of many local residents.</p> <p>Notwithstanding all of the above, Tritax’s responses to the Examining Authority’s Questions 1.8.5 to 1.8.10 displays an attitude of disengaged indifference based upon the argument that that they cannot and indeed are not permitted to extend beyond the guidelines of BS 5228-1.</p>	
<p><b>48</b></p>	<p><b>Acoustic Absorption</b></p> <p><b>1.8.11. Ground Acoustic Absorption</b></p> <p>In terms of noise impacts from the completed development, how has the ground absorption coefficient of 0 been calculated as identified in paragraph 10.220 of ES Chapter 10 [APP-119] for the “Do Something” scenarios? Has this coefficient been used for all noise models and, if not, why not?</p> <p><b>1.8.12. Ground Acoustic Absorption</b></p> <p>A) Could the Applicant explain why a ground absorption coefficient of 0.0 should not be extended beyond the site boundary to include the width of the existing railway?</p>	<p>This was addressed at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025). The use of a ground absorption coefficient of 0.5 provides a conservative approach as in reality, the ground between the proposed development and receptors should be set as acoustically absorptive.</p>



No.	Matter	Applicant's Response
	<p>B) If it were to be extended, what effect would this have on the assessments?</p> <p>The CadnaA Acoustic Software that Tritax have employed in their Noise and vibration report evidently has the ability to model a wide variety of industrial, residential, recreational, agricultural and mixed environments. As such, it must surely allow individual areas of ground each to be allocated their own values for the Ground Acoustic Absorption, be it G=0.0 or G=1.0 or even.... somewhere in between.</p> <p>Accurate and representative Acoustic Modelling in the critical area encompassing the Outward Facing Units 7, 8 and 9, the Acoustic Barriers, Gantry Cranes, Reach Stackers, and the Rail and Road Vehicles, the interplay between them, and how the resultant Noise is projected forwards towards the affected NSRs must surely be a prime requirement of the Noise and vibration study.</p> <p>And the correct Ground Acoustic Absorption of G=0.0 should be used in this critical and potentially Resonant area.</p> <p>During the course of the Issue Specific Hearing (ISH6) on the 24th January 2024, Tritax stated:</p> <p>“The Industry Standard approach, when you've got mixed ground, which we have in this situation, is to use an absorption coefficient of 0.5”</p>	

No.	Matter	Applicant's Response
	<p>I refer now to Tritax's ES Appendix 10.7 "Proof of Evidence of Simon Stephenson on Noise", Document Reference 6.2.10.7, prepared by RPS Consulting Services, which states:</p> <p>"8.6 The noise emissions due to the proposed development have been modelled using the CadnaA environmental noise prediction software. This model calculates the contribution from each noise source input as a specified source type (e.g. point, line, area) octave band sound power levels at selected locations. It predicts noise levels under light down-wind conditions based on hemispherical propagation, atmospheric absorption, ground effects, screening and directivity based on the procedure detailed in ISO 9613.</p> <p><b><i>8.7 The ground between the site and the receiver locations has been assumed to be soft although the site has been assumed to be hard.</i></b> Terrain contour data has also been entered in the model based on OS land contours. The site buildings have been included and these provide some degree of screening as well as reflecting surfaces." (the bold italics are mine)</p> <p>This gives the lie to Tritax's comments regarding an "Industry Standard".</p> <p>A further reason for using the correct Ground Absorption coefficients in the correct places is that, if this is not done, then, as the noise propagates from the Site to the individual NSRs it will be Attenuated for Distance at the wrong rate.</p> <p>The CadnaA predicted noise levels will therefore be too low at those NSRs closer to the Site, and too high at those NSRs further away from the Site. Or vice versa. The CadnaA software should be given the correct values to work</p>	

No.	Matter	Applicant's Response
	with. Assuming "eyeballed" averaged values can only foster increased Uncertainty in the Noise Predictions obtained from CadnaA	
49	<p><b>Noise Sources from the Proposed Development</b></p> <p><b>1.8.13 Background and Rating Levels</b></p> <p>Does the BS4142:2014+A1:2019 "Technical Note" published by the Association of Noise Consultants Good Practice Working Group in March 2020 have any relevance to assessments in terms of background levels and rating levels? If so, could the Applicant explain the implications?"</p> <p>The Association of Noise Consultants (ANC) is the representative body for acoustics consultancies and currently has 110 member companies employing over one thousand consultants.</p> <p>Membership is open to all acoustics consultancy practices able to demonstrate the necessary professional and technical competence. BWB Consulting Limited are not listed as Members.</p> <p>All of the Authors of the Association of Noise Consultants BS4142:2014+A1:2019 "Technical Note" are pre-eminent in the field of Acoustics Consultancy and are variously Fellows or Members of the Institute of Acoustics.</p> <p>In their Introduction to the BS4142:2014+A1:2019 "Technical Note" the Authors wrote:</p> <p>"In the production of this guidance, the ANC Working Group (WG) has reviewed BS 4142 and attempted to address any content regarded as</p>	<p>The ANC is a trade organisation and there are plenty of reputable specialist acoustic consultancies who are not members. The professional body for acoustic specialists is the Institute of Acoustics and there is a strict criteria-set for individuals to meet in order to gain membership.</p>

No.	Matter	Applicant's Response
	<p>ambiguous. There are some instances where the WG has chosen to go beyond strict interpretation of BS 4142 and to offer additional ancillary advice. Wherever possible a group position has been presented. In some cases, where the WG has held a range of views, it has tried to make this clear.</p> <p>The WG has tried to illustrate the guide with real life examples, some of which were provided by working group members and some of which were helpfully provided by other ANC members. In certain sensitive cases, where the group felt it necessary to alter the reported facts, it has tried to do so without changing the principles on which the assessment decisions and outcomes were based.</p> <p>The discussion within the document is also intended to assist with the evolution and development of BS 4142.”</p>	
<p><b>50</b></p>	<p><b>Baseline and Off-Site Rail Movements</b></p> <p><b>1.8.14. Rail Movements</b></p> <p>“Data on timetabled trains has been used to provide the baseline for the existing movements at the current time on a weekday. Could the Applicant explain how this element of modelling is robust given that some trains timetabled to run do not actually run?”</p> <p>Tritax stated: “There would need to be a significant reduction in trains running for this to have an appreciable effect on the existing ambient noise levels in proximity to the railway.”</p>	<p>This was addressed at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025)</p>

No.	Matter	Applicant's Response
	<p>Yes, I agree! And there is a very significant reduction in the number of trains running! A reduction of over 40 Freight Trains per day! As indicated below:                      Weekdays (24 hours) - of the 62 Freight Trains indicated by Tritax, only 21 actually run. Weekdays (daytime) - of the 41 Freight Trains indicated by Tritax, only 14 actually run. Weekdays (night-time) - of the 21 Freight Trains indicated by Tritax, only 7 actually run.</p> <p>The reduction is even more marked at Weekends, and especially Weekend night-times, with no trains running at all on Saturday nights.</p> <p>And it is the Freight Trains that are by far and away the greatest contributors to rail noise, by a factor of 11 to 1 per train.</p> <p>Small wonder then that Tritax's modelling is inaccurate</p>	
<p><b>51</b></p>	<p><b>Uncertainty</b></p> <p><b>1.8.17. Uncertainty</b></p> <p>"Could the Applicant explain how it has addressed the principles of Uncertainty alluded to in BS4142:2014+A1:2019 "Methods for rating and assessing industrial and commercial sound" for the noise and vibration assessments?"</p> <p>It is evident from Tritax's reply that they have not considered Uncertainty at all. Indeed, their only mention of the word "Uncertainty" in the whole of their Noise and vibration report is in their Paragraph 10.76 which states "there is inherently a degree of uncertainty over the final layout of the site, including where primary noise sources are to be located."</p>	<p>Uncertainty was addressed at ISH6 and summarised in the Applicants Written Statement of Oral Case (document reference: 18.15, REP5-025). The remaining points have been addressed through Deadline submissions and there is no new information here to respond to.</p>

No.	Matter	Applicant's Response
	<p>Yet BS4142 devotes the whole of its Chapter 11 to the subject of Uncertainty, emphasising how important it is, especially in the more and more complex developments, and in particular in those instances where the findings might be considered marginal. And these are precisely the categories into which Tritax's Proposed Development falls.</p> <p>Contrast this with Tritax's fixation upon just two sentences in BS4142, which they have used to try and justify the sweeping and almost unprecedented substitution of Background Noise by Ambient Noise in their Noise and vibration report, a substitution that is not mentioned, much less discussed, in BS4142.</p> <p>In their response to the Examining Authority's 1.8.17, Tritax assert the level of Uncertainty is low. But it is not, it is very high. Sources of Uncertainty include:</p> <ul style="list-style-type: none"> <li>• The convoluted processes concerning the Baseline Condition.</li> <li>• The many assumptions made regarding the Construction and Operational activities.</li> <li>• The number and complexity of the Acoustic Models.</li> <li>• The practice of considering each Additional Noise Source in isolation.               <ul style="list-style-type: none"> <li>• The close parity between of Tritax's "Completed Development Noise" and the Baseline Condition Tritax have adopted.</li> </ul> </li> <li>• The practice of expunging the many Additional Noise Sources that Tritax consider insignificant.</li> <li>• The marginally acceptable Noise Levels Tritax have predicted at Facades, Operational Maximum Noise Levels and WHO Noise Levels for Outdoor Areas.</li> </ul>	

No.	Matter	Applicant's Response
	<p>It's a very tall stack of processes.....</p> <ul style="list-style-type: none"> <li>• And, finally, but by no means least, Tritax's insistence that, despite all of the contributory factors I have described above, the level of Uncertainty remains low, and is of no concern at all.</li> </ul> <p>Tritax are clearly not going to engage with Uncertainty, any more than they will with Construction Noise.</p> <p>With regard to <b><i>the level of Uncertainty during measurement</i></b>, Tritax state in their reply to the Examining Authority's Question:</p> <p>"The level of uncertainty of the measurement is low given the length of the measurement period and intervals, and the removal of any adverse weather conditions."</p> <p>Whilst it is true that Tritax's Noise and vibration report describes in detail the measuring equipment used, the measurement periods, and the weather conditions ruling at the NMPs, it does not indicate the positions at which the NMPs were located away from the trackside (or roadside as appropriate) when the measurements were taken. As these measurements were intended to capture the Specific Sound of the Rail Noise (or Road Noise as appropriate), failing to indicate the positions of the NMPs in this way is in direct contravention of BS4142 which states:</p> <p>"Measurement locations, <b><i>their distance from the specific sound source</i></b>, the topography of the intervening ground and any reflecting surface other than the ground, including a photograph, or a dimensioned sketch with a north</p>	

No.	Matter	Applicant's Response
	<p>marker. A justification for the choice of measurement locations should also be included.” (the bold italics are mine).</p> <p>This means that the Noise Measurements from the NMPs that are used in Tritax’s Noise and vibration report are effectively uncalibrated. Although a calibration procedure might be applied with reference to “Calculation of Railway Noise” (CRN) or “Calculation of Road Traffic Noise” (CRTN) as appropriate, Tritax’s Noise and vibration report makes no mention of any such procedure.</p> <p>There is strong evidence that NMP4 was placed too close to the track, and consequently its Noise Measurement are approximately 3.2dB too high. I have written about this several times previously.</p> <p>As the Noise Data from the NMPs are the basis for Tritax’s Baseline Conditions, this constitutes an immediate and significant source of Uncertainty.</p> <p>With regard to the level of <b><i>Uncertainty during calculation</i></b>, Tritax state in their reply to the Examining Authority’s Question:</p> <p>“The level of Uncertainty from the calculation is low. The resultant levels have been derived using acoustic modelling software that uses industry recognised standard ISO 9613-2 calculation method, which assumes downwind sound propagation in all directions. Standardised sound pressure levels were used as input data in the model which is considered to be representative of the sources and the conditions under which the sources are expected to operate.”</p>	



No.	Matter	Applicant's Response
	<p>But Tritax also feel free to ignore at will a warning made in that same ISO 9613-2 Standard, when it does not favour their Proposed Development, as I have indicated earlier in respect of the Examining Authority's Question 1.8.4.</p> <p>Further with regard to the <b>level of uncertainty during calculation</b>, I quote from the CadnaA website (in slightly Germanic English):</p> <p>"Calculation of the uncertainty. CadnaA has a large selection of evaluation parameters. Among those, the calculation of the Standard Deviation is required by many guidelines like TA Lärm. CadnaA also includes a statistical analysis tool used to check the effect of any configuration setting that the user may alter in the calculated results, as required by Quality Assurance Standards such as ISO 17534."</p> <p>Have Tritax used these Uncertainty tools, and what Standard Deviations did they obtain?</p> <p>But, overarchingly Uncertainty is about establishing, should the Proposed Development be approved, the risk that the Noise Environment will suffer an unacceptable level of degradation.</p> <p>This, of course, naturally depends not just upon the "nominal" level of degradation that would be indicated in a balanced and objective Noise and vibration report. But also upon the levels of Uncertainty associated with the Baseline Conditions and with the individual Noise Sources that are created by the Proposed Development.</p>	

No.	Matter	Applicant's Response
	<p>Tritax's Proposed Development is especially vulnerable in all of these respects.</p> <p>With respect to Baseline Conditions, it is extremely dependent upon Tritax's extraordinary decision to use Ambient Noise levels rather than Background Noise levels. With respect to the Additional Noise Sources, too, it is particularly at risk. Firstly, because of the extent and the multi-faceted nature of the Proposed Development, there are many Additional Noise Sources that have been created. Secondly, their treatment in the Noise and vibration report has often been incomplete, confused, or demonstrably wrong., but nevertheless still remains uncorrected. And thirdly, rather than combining the Additional Noise Sources together, they have been considered individually in a piecemeal fashion. As a result, many have been rejected as insignificant, and subsequently entirely lost from Tritax's Noise and vibration report.</p> <p>But in the real world they will of course not be lost at all, but will simply migrate and come to roost as further factors in the accumulating Uncertainty surrounding the Proposed Development.</p> <p>Given what has happened to date, the Outcome cannot be now established until the Proposed Development is built</p>	
52	<p><b>Rating Penalties</b></p> <p><b>1.8.24. Rating Penalties</b></p> <p>"Can the Applicant explain the methodology and rationale for the application of its various rating penalties."</p>	<p>The application of rating penalties is based on professional judgement using the guidance set out in BS4142:2014+A1:2019.</p> <p>A review has been undertaken of the Noise and Vibration Chapter prepared for Northampton Gateway (Document 5.2 Chapter 8). The report acknowledges that operational sound from the SRFI would be complex in nature and as a cautious</p>

Residents Businesses

No.	Matter	Applicant's Response
	<p>I haven't paid great attention to the Rating Penalties that Tritax have applied in the Noise and vibration report, because by the time you get to that point in their report, the values you are presented with for the Specific Sound level over Background (or, bizarrely in this particular Noise and vibration report, over Ambient) are clearly already unrealistic.</p> <p>But what I have noticed is that, despite a single reference to the BS4142 "subjective method", which might give the reader a feeling of vague reassurance, Tritax have not actually described any method, if indeed, method there be, as to how they actually have apportioned their Rating Penalties.</p> <p>They should declare and squarely adopt a quantified procedure, for example the Joint Nordic Method, and be open about its application.</p> <p>Dr David Moore</p>	<p>approach, a +3dB(A) penalty has been applied to all sources of an industrial nature on the SRFI to account for features that may be readily distinctive at the receptors. A review has also been undertaken of the Noise and Vibration chapter prepared for East Midlands Gateway (Chapter 9 Document 5.2 July 2014). In this assessment, a +5dB correction has been applied to the predicted noise levels to take account of the acoustic characteristics. It is important to note that the 1997 version of BS4142 was still the extant version at the time and a there was only the option of applying a +5 correction or no correction to the specific sound level to arrive at a rating level. This demonstrates that there is no standard accepted methodology for determining rating levels, and it is based on professional judgement.</p>