

**APPEAL BY BAXTER CONSTRUCTION LTD AGAINST
A REFUSAL OF PLANNING PERMISSION
BY LANCASHIRE COUNTY COUNCIL
FOR MINERAL EXTRACTION AND RESTORATION
ON LAND AT MYTAX FARM OFF BOURBLES LANE IN PREESALL, LANCASHIRE**

PINS APPEAL REF: 6002168

**PROOF OF EVIDENCE OF ROBERT STOREY
ON NOISE
ON BEHALF OF
BAXTER CONSTRUCTION LTD**

Author Robert Storey PhD BEng MIOA
Date 16 March 2026
Revision -
WBM Ref 5573

Qualifications, Credentials & Statement of Truth

- 1.1 My professional address is Steepleton Lodge Barn, Long Lane, East Haddon, Northamptonshire, NN6 8DU. I am a Senior Consultant with the Walker Beak Mason Limited (WBM) that specialises in Acoustic Consultancy.
- 1.2 WBM is an independent acoustic consultancy that deals with environmental assessments, legal and planning appeals work and architectural and building acoustics. WBM is a member of the Association of Noise Consultants and is an Associate Assessor Member of the Institute of Environmental Management and Assessment.
- 1.3 I hold the degrees of Bachelor of Engineering and Doctor of Philosophy of the University of Leeds. I am a Member of the Institute of Acoustics. I have been practising in Acoustics since 1999 and I joined WBM in October 2007.
- 1.4 I have worked as a consultant for many of the major mineral extraction companies in the UK as well as a number of Mineral Planning Authorities on a wide range of surface mineral workings, aggregate related plant sites, waste disposal and recycling projects.
- 1.5 I have produced numerous environmental noise reports for planning applications, noise impact assessments and environmental statements, including detailed recommendations for developers based on measurements and computer modelling for different noise sources.
- 1.6 I advise on the acoustic aspects of site development, road schemes, rail-linked sites as well as commercial and residential developments, including the measurement and prediction of environmental, industrial and transportation noise.
- 1.7 The evidence which I have prepared and provide for this appeal (PINS reference 6002168) is true and has been prepared and is given in accordance with the guidance of my professional institution and I confirm that the opinions expressed are my true and professional opinions, irrespective of by whom I am instructed.

Scope of Proof

- 2.1 I was instructed in November 2025 by Kedd Limited on behalf of the Baxter Construction Ltd to consider the noise generated from the extraction of sand and gravel from land with processing and export of the raised material on a designated plant site in the vicinity of Mytax Farm off Bourbles Lane in Preesall, Lancashire following the original noise assessment (and updated version) issued by Vibrock Limited.
- 2.2 My brief was to consider the assessment of the impact of noise from operations on the site including site related vehicle movements, and to advise upon its consequences and any appropriate mitigation measures.
- 2.3 Survey and assessment work was previously undertaken by Vibrock Limited and summarised in their noise assessment report dated 20 March 2023 Ref. R23.11291/2/AP (using survey data obtained in October 2021). This noise assessment report was submitted as part of the original planning application to Lancashire County Council in 2023.
- 2.4 An updated noise assessment report prepared by Vibrock Limited dated 19 August 2024 Ref. R24.12202/1/AP (using an updated baseline noise survey in June 2024). This updated noise assessment was submitted in response to a Regulation 25 request dated 27 March 2024 as part of the previous application for the site (Ref. LCC/2023/0030) which was subsequently refused by Lancashire County Council on 20 October 2025.
- 2.5 In this Proof of Evidence I will consider and assess the following contentions set out in reason for refusal relating to noise, and in paragraph 7.4 of the Council's Statement of Case:

“In terms of noise, the County Council will demonstrate that the development would have an unacceptable impact on the amenity of those residents living immediately adjacent to the boundaries of the application site due to noise impacts on local residents arising from the stripping of soils, excavation of minerals and backfill operations. These impacts will be demonstrated having regard to the phasing of the quarrying, processing and infill operations, ability to provide effective mitigation measures and the likely noise impacts that would be generated above the existing background levels.”

- 2.6 Although this Statement of Case did not specify the reasons for refusal on grounds of noise, the reasons were outlined in the Statement of Common Ground on noise issued by their consultants, Atkins, and agreed/submitted on 06 March 2026,
- 2.7 Those reasons are reproduced below and are considered and addressed in this Proof:

“The Appellant and the Council disagree on the following matters:

- *While agreeing that the adopted methodology for assessment of noise impacts is suitable (as presented within the updated Noise Assessment, Vibrock 2024), the Council do not agree with the Appellant findings regarding the predicted noise levels at some locations- principally among these, ‘Woodlands’ during normal operations*

and particularly during the short-term works and. The Council position is that the magnitude of noise impacts are underestimated by the Appellant.

- The Council position is that the Appellant has not considered additional factors that affect the sensitivity of nearby properties to noise, such as the orientation of the external amenity space at Woodlands siding on to the site.
- The Council position is that the mitigation proposed by the Appellant would not be sufficient to minimise noise disturbance levels and enable a good standard of amenity to be achieved in accordance the requirements of the NPPF, NPSE, PPG Noise, and PPG Minerals.
- Following on from the above point, the proposed noise limits at some locations are set higher than the background level+10 dB. The Council's position is that this serves to artificially increase the noise limit by not considering all reasonable mitigation measures to achieve sound levels below background+10 dB.
- Additionally, at these locations the limit has arbitrarily been set to the upper value stated in PPG Minerals of 55 dB LAeq,1h, despite predicted noise levels being lower than this level (notwithstanding the point above regarding mitigation not being considered to achieve below background+10dB). The Council's position is that this serves to artificially increase the noise limit.
- Mineral extraction works are proposed prior the construction of noise bunds (under the bund locations) and should not be subject to a short-term limit (notwithstanding the disagreement on predicted noise levels during short-term works) as it falls outside the scope of works stated in PPG Minerals for which the short-term limit applies.
- Notwithstanding the point above, the council do not agree with 70 dB LAeq,1h as a short term limit, with PPG Minerals stating that short-term limits 'up to 70 dB LAeq,1h' should be 'considered'.

2.8 This is despite the fact that the County Council's own independent acoustic consultant, Atkins, had stated in a Technical Note dated 10 January 2025 Ref. 5218724 (CD4.02) in response to the updated noise assessment prepared by Vibrock Limited following the Regulation 25 letter that:

"The previous review identified five items where further information from the applicant would be beneficial. Additional baseline monitoring has been undertaken and further assessment information has been provided. These resolve the majority of the items raised in the initial review. The assessment shows that short-term noise levels are within the 70dB(A) criteria. Noise levels from normal operations are within the 55dB(A) criteria, but are more than 10dB(A) above baseline noise levels in some circumstances. Noise mitigation is included to deal with the majority of impacts.

If noise is a particular concern for this development, there may be benefits in the applicant providing details about the noise attenuation of the proposed bunds, the potential for cumulative effects, and any other proposed noise management controls.

The applicant has not assessed road traffic noise from the development on receptors near the B5270 Lancaster Road, but the available data indicates this is unlikely to be a concern.”

2.9 In my evidence I will:

- (a) Describe the proposal.
- (b) Identify relevant policy and guidance relating to assessment of noise arising from mineral workings.
- (c) Set out the methodology Vibrock employed whilst undertaking their assessment.
- (d) Identify and review the baseline information on which Vibrock relied.
- (e) Consider the noise impact arising from the proposed mineral workings based on the calculations in the Vibrock assessment and review their calculations.
- (f) Express a view on whether the proposal would comply with relevant policy and guidance.
- (g) Consider the specific contentions advanced by the Council as not yet being in agreement (and summarised above) and discuss the potential for agreement with the Council on these points.
- (h) Consider whether adequate information was provided with the application.
- (i) Set out my summary and conclusions.

Description of Proposal

- 3.1 The proposed quarry at Mytax Farm is located on land to the north and south of Bourbles Lane, Preesall in Lancashire.
- 3.2 Full details of the existing site, site setting and proposed operations are provided in the evidence presented by Mr Liam Toland, the Planning Statement, the ES and summarised in the SoCG. Updated proposed phasing plans are provided in the Regulation 25 submission. In addition, a detailed summary of the proposed working scheme and phasing is provided by Mr Simon Rees.
- 3.3 Proposals are for the extraction of sand and gravel / solid sand over a 5-year period, with progressive restoration with site-won material and imported inert material. Final restoration to agricultural fields and water bodies would take place across a further 2 years.
- 3.4 It is proposed that extracted mineral from the proposed extraction areas will be processed on site then exported by road going HGVs or stockpiled for later export.
- 3.5 Access to the Site would be provided directly off the B5270 Lancaster Road via a newly constructed and purpose-built access point. This is located on the southern side of the Site between Hillfield House and The Beeches.
- 3.6 The Planning Statement (CD1.02) estimates that 513,000 tonnes of sand and gravel may be present on the Site, of which 487,000 tonnes may be saleable aggregate following washing, processing, and screening. The workable sand and gravel deposits are overlain by thin soils which are generally less than 0.5m thick. With proposed sales over a 4-to-5-year period this results in an output of about 100,000 tonnes per annum (tpa).
- 3.7 Inert import requirements to achieve final restoration are estimated as 220,000m³ in total. Restoration is to be subject to a restoration plan – but the intention is to restore to broadly previous ground levels and to allow the land to be used for agriculture. The landowner has an aspiration to retain the existing access and to seek planning permission for a holiday lodge based development – but this will require a future consent from Wyre BC and does not form part of this proposal.
- 3.8 Further details on the individual phases are provided in the evidence provided by Mr Simon Rees and are summarised as follows:

Table 4.2: Summary of Phases

Phase	Anticipated Extraction Duration (months) ¹	Comments
Phase A (1.6ha)	6	<ul style="list-style-type: none"> • Site Enabling Works • 3m screening bunds to be created to west and east boundaries using site-won soils and overburden; • extraction to depth of ~2m; • to be backfilled with engineered fill for construction of Plant Site; • includes construction of new access, access road, clean water lagoon & silt lagoon; • during this Phase as-raised material will be transferred off site for processing and sales; • access to be via Bourbles Lane until new access constructed.
Phase 1 (2.4ha)	18	<ul style="list-style-type: none"> • access road to Phase 1 to be provided with 1.5m deep cutting; • initial earthworks of 4-6 weeks required to extract mineral under bund foundation area and near to adjacent residential properties; initial extraction to top of water table; area to be backfilled immediately to original level; • soils to be stored in 3m high bunds on northwest and east edges of Phase 1; • subsequent extraction in remaining Phase 1 area to be combination of 'dry' and 'wet' working with no de-watering of the lower unit that is below the water table; • area to be restored using site-won materials; no import of inert waste materials; • area to be restored to lakes with site-won materials used as landscaping around lakes to 5m AOD; • final restoration expected to be completed during Phase 2 extraction.
Phase 2 (1.1ha)	6	<ul style="list-style-type: none"> • soils to be stored in 3m high bunds on north and east edges of Phase 2; • single extraction campaign of 4-6 weeks expected; • to be restored to lake feature; some imported infill fill may be required; • final restoration expected to be completed during early stages of Phase 3 extraction
Phase 3 (4.9ha)	18	<ul style="list-style-type: none"> • comprises Phase 3a and Phase 3b, either side of the buried gas and water main;

Phase	Anticipated Extraction Duration (months) ¹	Comments
		<ul style="list-style-type: none"> soils to be stored in 3m high bunds on eastern and southwestern edges of Phase 3; backfilling to occur as rapidly as possible as mineral extraction progresses; extraction to be to depths of ~2m-3m; final restoration of Phase 3 b expected to be completed during Phase 4 extraction
Phase 4 (1.9ha)	12	<ul style="list-style-type: none"> soils to be stored in 3m high bunds on northern edge of Phase 4; backfilling to occur as rapidly as possible as mineral extraction progresses;
Phase 5	n/a	<ul style="list-style-type: none"> Final Site Restoration further 2 years provided for completion of final restoration; to include removal of processing plant and infrastructure and placement of stockpiled soils across Phase A

1: These are broad timescales

- 3.9 The recorded water table lies at a depth of about 0.8m to 1.5m below ground level across the majority of the site. The groundwater table is however variable fluctuating by up to 1.5m between summer lows and winter highs. Hence the deposit will require a limited amount of de-watering for dry working, especially in the central and eastern parts of the site. However, Phase 1 will not be subject to dewatering and the deeper deposits in this phase will be excavated using a 'wet' dig.
- 3.10 As extraction is to be undertaken on a campaign basis there will be periods when both extraction and restoration are taking place and later periods when only restoration is taking place.

Relevant Policy and Guidance

4.1 Relevant development plan policies and guidance relating to noise, which were referred to and considered in the submitted ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05), are as follows.

Joint Lancashire Minerals and Waste Local Plan (Policy DM2) & Wyre Local Plan (Policy CDMP1) (CD7.01)

“Development for minerals or waste management operations will be supported where it can be demonstrated to the satisfaction of the mineral and waste planning authority, by the provision of appropriate information, that all material, social, economic or environmental impacts that would cause demonstrable harm can be eliminated or reduced to acceptable levels. In assessing proposals account will be taken of the proposal's setting, baseline environmental conditions and neighbouring land uses, together with the extent to which its impacts can be controlled in accordance with current best practice and recognised standards.

In accordance with Policy CS5 and CS9 of the Core Strategy developments will be supported for minerals or waste developments where it can be demonstrated to the satisfaction of the mineral and waste planning authority, by the provision of appropriate information, that the proposals will, where appropriate, make a positive contribution to the:

- *Local and wider economy*
- *Historic environment*
- *Biodiversity, geodiversity and landscape character*
- *Residential amenity of those living nearby*
- *Reduction of carbon emissions*
- *Reduction in the length and number of journeys made. This will be achieved through for example:*
 - *The quality of design, layout, form, scale and appearance of buildings*
 - *The control of emissions from the proposal including dust, noise, light and water*
 - *Restoration within agreed time limits, to a beneficial afteruse and the management of landscaping and tree planting*
 - *The control of the numbers, frequency, timing and routing of transport related to the development.”*

Noise Policy Statement for England (NPSE) (CD12.02)

The Explanatory Note to the NPSE introduces the concepts of observed effect levels with regard to noise.

National Planning Policy Framework (NPPF) (CD12.01)

Paragraphs 187, 198, 222, 223 and 224 of the NPPF (paragraph numbers updated with document changes since submission) are considered relevant, with paragraph 198 specifically referenced by Lancashire County Council.

Paragraph 198 states:

“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

- a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;*
- b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason...”*

National Planning Policy Framework (NPPF) Paragraph 223 (e) to (g) state that when considering proposals for mineral extraction, minerals planning authorities should:

“Planning policies should ...

(e) safeguard existing, planned and potential sites for: the bulk transport, handling and processing of minerals; the manufacture of concrete and concrete products; and the handling, processing and distribution of substitute, recycled and secondary aggregate material;

(f) set out criteria or requirements to ensure that permitted and proposed operations do not have unacceptable adverse impacts on the natural and historic environment or human health, taking into account the cumulative effects of multiple impacts from individual sites and/or a number of sites in a locality;

(g) when developing noise limits, recognise that some noisy short-term activities, which may otherwise be regarded as unacceptable, are unavoidable to facilitate minerals extraction...”

National Planning Policy Framework (NPPF) Paragraph 224(c) states that when considering proposals for mineral extraction, minerals planning authorities should:

“(c) ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations are controlled, mitigated or removed at source, and establish appropriate noise limits for extraction in proximity to noise sensitive properties...”

Planning Practice Guidance Noise (PPGN) (CD12.03)

Paragraph 005 provides guidance on how to establish if noise is likely to be a concern within the overall aim of the guidance to manage potential noise impacts in new development.

Planning Practice Guidance - Minerals (PPGM) (CD12.04)

Paragraphs 019 to 022 of PPGM are titled “Noise emissions” within the section “Assessing environmental impacts from mineral extraction” and are most relevant.

Paragraph 021 specifically advises on recommended site noise limits for mineral operations as follows:

“What are the appropriate noise standards for mineral operators for normal operations?”

Mineral planning authorities should aim to establish a noise limit, through a planning condition, at the noise-sensitive property that does not exceed the background noise level (LA90,1h) by more than 10dB(A) during normal working hours (0700-1900). Where it will be difficult not to exceed the background level by more than 10dB(A) without imposing unreasonable burdens on the mineral operator, the limit set should be as near that level as practicable. In any event, the total noise from the operations should not exceed 55dB(A) LAeq, 1h (free field). For operations during the evening (1900-2200) the noise limits should not exceed the background noise level (LA90,1h) by more than 10dB(A) and should not exceed 55dB(A) LAeq, 1h (free field). For any operations during the period 22.00 – 07.00 noise limits should be set to reduce to a minimum any adverse impacts, without imposing unreasonable burdens on the mineral operator. In any event the noise limit should not exceed 42dB(A) LAeq,1h (free field) at a noise sensitive property.

Where the site noise has a significant tonal element, it may be appropriate to set specific limits to control this aspect. Peak or impulsive noise, which may include some reversing beepers, may also require separate limits that are independent of background noise (eg Lmax in specific octave or third-octave frequency bands – and that should not be allowed to occur regularly at night.)

Care should be taken, however, to avoid any of these suggested values being implemented as fixed thresholds as specific circumstances may justify some small variation being allowed.”

Assessment Methodology

- 5.1 The assessment was undertaken using the advice contained within the latest Government guidance on noise from mineral sites, Planning Practice Guidance – Minerals (PPGM).
- 5.2 The guidance in Paragraphs 019 to 022 of PPGM was used to determine appropriate site noise limits based on representative background noise levels established during baseline noise surveys undertaken in October 2021 and June 2024.
- 5.3 The calculated site noise levels presented in submitted ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) were determined by calculations based on the methods contained in BS5228-1: 2009 + A1:2014 “Code of practice for noise and vibration control on construction and open sites – Part 1: Noise”.
- 5.5 The assessment of the noise impact of the proposals in the ES Appendix 9 - Noise Assessment (CD1.21) was based on the concepts of NOAEL, LOAEL and SOAEL referred to in the Explanatory Note to the Noise Policy Statement for England (NPSE) and the Noise Exposure Hierarchy in Planning Practice Guidance Noise (PPGN).
- 5.6 My overall review of the updated Vibrock report that was undertaken in November 2025 and summarised in a draft Statement (CD12.24) concluded that:

“In my opinion, the Vibrock Limited noise assessment report submitted with the application does demonstrate that the site can be worked whilst keeping noise to within environmentally acceptable levels in compliance with Paragraph 198 of the NPPF and Policy DM2 of the Joint Lancashire Minerals and Waste Local Plan and Policy CDMP1 of the Wyre Local Plan.

The submitted assessment also provides appropriate recommendations to ensure compliance with the latest Government advice in Planning Practice Guidance (Minerals) is maintained and that the amenity of the nearest noise sensitive dwellings is protected.”

- 5.7 As in the Atkins Technical Note, my opinion was that additional mitigation could be looked at in order for the calculated site noise levels would comply with the PPGM recommended site noise limits of no more than 10 dB(A) above the representative background noise levels.
- 5.8 To this end, calculations have been undertaken to replicate the Vibrock calculations and advice has been provided with regard to increases in bund heights in some areas and also the extent of the areas in which operations result in calculated site noise levels more than 10 dB(A) above the representative background noise levels (but below 55 dB L_{Aeq, 1 hour}).

Baseline Information

- 6.1 Baseline noise information was obtained by attended sample measurement surveys at eight locations representative of the nearest residential receptors. I am satisfied that the surveys were done properly and in accordance with relevant guidance.
- 6.2 The attended surveys took place on Wednesday 13 October 2021, Friday 21 June 2024 and Saturday 22 June 2024.
- 6.3 The survey on Wednesday 13 October 2021 was undertaken with a light to moderate west north-westerly wind.
- 6.4 The surveys on Friday 21 June 2024 and Saturday 22 June 2024 were undertaken with a light west south-westerly wind.
- 6.5 Representative background sound levels were determined from the mean L_{A90} noise levels at each receptor during the attended sample measurements.

Noise Impact

- 7.1 The ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) suggested site noise limits at the nearest residential receptors to the site, due to routine day to day operations. These site noise limits were determined from the baseline noise survey data and the advice in paragraph 021 of Planning Practice Guidance – Minerals (PPGM), i.e. 10 dB(A) above representative background (L_{A90}) noise levels up to a maximum of 55 dB $L_{Aeq, 1 \text{ hour}}$.
- 7.2 During periods of the development when the calculated site noise levels (with the originally proposed bunding in place) would not comply with limits based on background noise levels plus 10 dB(A), a limit of 55 dB $L_{Aeq, 1 \text{ hour}}$ limit was suggested in the assessment.
- 7.3 The ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) identified four locations at which during one phase closest to each location where the calculated worst case site noise levels were more than 10 dB(A) above the representative background noise levels for those locations, but were below the upper 55 dB $L_{Aeq, 1 \text{ hour}}$ level recommended in PPGM and suggested in the assessment for these locations.
- 7.4 The assessment therefore complied with the recommendations in the PPGM. However, the Atkins Technical Note dated 09 January 2025 (Ref. 5218724) prepared in response to the ES Appendix 9 - Noise Assessment (CD1.21) suggested that:

“If noise is a particular concern for this development, there may be benefits in the applicant providing details about the noise attenuation of the proposed bunds, the potential for cumulative effects, and any other proposed noise management controls.”

- 7.5 To address the suggestion made by Atkins and the subsequent points with regard to the site noise limits in the Statement of Common Ground on noise, I have duplicated the site noise calculations undertaken by Vibrock for the ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) and I have made recommendations relating to minor changes to the bunding and examining the extent of the limited areas in which operations would result in calculated site noise levels more than 10 dB(A) above the representative background noise levels. This document was sent to Lancashire County Council on 24 February 2026 and is included in the Core Documents as CD12.23.
- 7.6 It was found that mineral extraction operations within the following distances to the dwellings would result in the calculated site noise levels exceeding the representative background noise levels at the properties by more than 10 dB(A) and would comply beyond those distances:
- Phase 1 – Woodlands – A working distance of 90 metres;
 - Phase 1 – Red Lea – A working distance of 125 metres; and
 - Phase 4 – Bourbles Farm – A working distance of 160 metres.
- 7.7 It was also found that increasing the bund heights as follows would result the calculated site noise levels being no more than 10 dB(A) above the representative background noise levels at all the assessment locations:

Phase 1 – Woodlands – Bunding to a height of 10.1 metres AOD;

Phase 1 – Red Lea – Bunding to a height of 9.7 metres AOD; and

Phase 4 – Bourbles Farm – Bunding to a height of 11 metres AOD.

The greatest change being an increase of 1.5 metres for the Phase 4 bund in the direction of Bourbles Farm with the increases required for the bunding in Phase 1 being less than half a metre (nominally 0.1 metres from Woodlands and 0.2 metres for Red Lea compared to the levels shown in the site plans).

- 7.8 These proposed bunds would need to be in place during the periods when mineral extraction and infilling operations are taking place in the nearest phases to each property, but could then be reduced/removed as appropriate.
- 7.9 The ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) suggested a site noise limit of 70 dB $L_{Aeq, 1 \text{ hour}}$ at the residential receptors to the site due to temporary operations limited to 8 weeks per calendar year such as soil stripping and bund formation determined from the baseline noise survey data and the advice in paragraph 022 of Planning Practice Guidance – Minerals (PPGM).
- 7.10 The ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) presents a comparison of the calculated site noise levels with the suggested site noise limits and demonstrated compliance with those limits at all receptors throughout the life of the development.
- 7.11 The ES Appendix 9 - Noise Assessment (CD1.21) the and Section 4 - Updated Noise Assessment (CD3.05) presented the comparison the calculated site noise levels with the suggested site noise limits in the context of the noise impact of the proposals and determines that a good standard of amenity is achieved at all the nearest residential receptors to the site when considering routine day to day operations on the site.
- 7.12 The ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) presented the calculated site noise levels due to temporary operations such as soils stripping and bund formation with the suggested higher site noise limit for those activities and determined that a good standard of amenity is achieved at five of the twelve residential receptors considered (i.e. no more than 10 dB(A) above the representative background noise levels) with a temporary adverse effect suggested at the seven remaining locations.
- 7.13 The works determined to be of a temporary adverse impact was stated to be of limited duration as restricted to no more than 8 weeks in any calendar year during the periods in which bund construction and soils/overburden stripping is taking place at the nearest point to those locations. These short term operations such as bund construction are required for the benefit of the nearest residences in order to protect their longer term amenity. Paragraph 022 of Planning Practice Guidance (Minerals) states that the temporary higher limit of up to 70 dB $L_{Aeq, 1 \text{ hour}}$ should be considered *“to facilitate essential site preparation and restoration work and construction of baffle mounds where it is clear that this will bring longer-term environmental benefits to the site or its environs”*.

- 7.14 As stated in the Statement of Common Ground on noise in relation to areas of the The ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) that had yet to be agreed with the Council, "*Mineral extraction works are proposed prior the construction of noise bunds (under the bund locations) and should not be subject to a short-term limit (notwithstanding the disagreement on predicted noise levels during short-term works) as it falls outside the scope of works stated in PPG Minerals for which the short-term limit applies.*" This point is accepted and temporary barriers in the form of closed boarded fencing have been proposed in the revised plans to allow for the extraction of this mineral to be undertaken whilst complying with the suggested site noise limits for routine operations of no more than 10 dB(A) above the background noise levels.
- 7.15 The proposed temporary barriers will remain in place during the bund construction operations near Woodlands to address the concerns relating to that property outlined in the Statement of Common Ground on noise.
- 7.16 The replication of the Vibrock calculations has confirmed that the calculated site noise levels are reasonable and that with minor alterations to the bunding would achieve compliance with site noise limits based on background noise levels plus 10 dB(A), save for during those temporary works periods.

Compliance with Relevant Policy and Guidance

- 8.1 Policy DM2 of the Joint Lancashire Minerals and Waste Local Plan and Policy CDMP1 of the Wyre Local Plan:

As required by Policy DM2 of the Joint Lancashire Minerals and Waste Local Plan and Policy CDMP1 of the Wyre Local Plan, the Section 4 - Updated Noise Assessment (CD3.05) with the proposed minor alterations to the plans incorporated demonstrates that the mitigation/bunding reduces and minimises potential environmental impacts due to noise to acceptable levels.

The proposal would therefore be in compliance with these policies.

- 8.2 National Planning Policy Framework (NPPF):

The suggested site noise limits and the proposed mitigation along with the calculated site noise levels demonstrating compliance with those site noise limits are in accordance with the requirements of NPPF Paragraph 198 as reproduced in Section 4.1 of this Proof of Evidence.

- 8.3 The ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) was prepared by Vibrock utilising the guidance in Planning Practice Guidance – Minerals (PPGM), Planning Practice Guidance Noise (PPGN), the Noise Policy Statement for England (NPSE).

Consideration of Council Contentions/Agreement With Lancashire County Council

- 9.1 Following the submission of the appeal against the decision, Lancashire County Council issued a Statement of Case (Ref. LCC/2023/0030) that I had set out above. For ease of reference I set it out below.

“In terms of noise, the County Council will demonstrate that the development would have an unacceptable impact on the amenity of those residents living immediately adjacent to the boundaries of the application site due to noise impacts on local residents arising from the stripping of soils, excavation of minerals and backfill operations. These impacts will be demonstrated having regard to the phasing of the quarrying, processing and infill operations, ability to provide effective mitigation measures and the likely noise impacts that would be generated above the existing background levels.”

- 9.2 Lancashire County Council again instructed WS Atkins to act on their behalf in 2026 with regard to noise and David Gray of Atkins drafted a Statement of Common Ground that was agreed and submitted on 06 March 2026.
- 9.3 The Statement of Common Ground on noise included the following points on which there was agreement:

“The Appellant and the LPA are agreed that:

- Residential dwellings near the Site and nearby local road network are not located within any Noise Important Areas (NIAs);*
- The potential noise impacts from traffic on the public highway associated with the Proposed Development are not considered to be significant;*
- Submission to, and agreement of a Noise Management Plan (NMP) with the Minerals Planning Authority, and subsequent adherence to, can be made the subject of a planning condition to any granted permission;*
- Ground-borne vibration resulting from mineral extraction is not expected to cause significant adverse effects on building integrity at nearby properties.*
- Despite minor discrepancies in the timings of the baseline noise monitoring (some measurements being shorter than 15-minutes duration), the background noise levels are considered to be representative of the area;*
- As there will be no operations at night, health concerns over lack of sleep are not relevant in this instance.”*

- 9.4 The Statement of Common Ground on noise then included the following points on which there was yet to be agreement:

“The Appellant and the Council disagree on the following matters:

- While agreeing that the adopted methodology for assessment of noise impacts is suitable (as presented within the updated Noise Assessment, Vibrock 2024), the Council do not agree with the Appellant findings regarding the predicted noise levels at some locations- principally among these, ‘Woodlands’ during normal operations*

and particularly during the short-term works and. The Council position is that the magnitude of noise impacts are underestimated by the Appellant.

- The Council position is that the Appellant has not considered additional factors that affect the sensitivity of nearby properties to noise, such as the orientation of the external amenity space at Woodlands siding on to the site.*

- The Council position is that the mitigation proposed by the Appellant would not be sufficient to minimise noise disturbance levels and enable a good standard of amenity to be achieved in accordance the requirements of the NPPF, NPSE, PPG Noise, and PPG Minerals.*

- Following on from the above point, the proposed noise limits at some locations are set higher than the background level+10 dB. The Council's position is that this serves to artificially increase the noise limit by not considering all reasonable mitigation measures to achieve sound levels below background+10 dB.*

- Additionally, at these locations the limit has arbitrarily been set to the upper value stated in PPG Minerals of 55 dB LAeq,1h, despite predicted noise levels being lower than this level (notwithstanding the point above regarding mitigation not being considered to achieve below background+10dB). The Council's position is that this serves to artificially increase the noise limit.*

- Mineral extraction works are proposed prior the construction of noise bunds (under the bund locations) and should not be subject to a short-term limit (notwithstanding the disagreement on predicted noise levels during short-term works) as it falls outside the scope of works stated in PPG Minerals for which the short-term limit applies.*

- Notwithstanding the point above, the council do not agree with 70 dB LAeq,1h as a short term limit, with PPG Minerals stating that short-term limits 'up to 70 dB LAeq,1h' should be 'considered'.*

9.5 It should be noted that, as I have previously stated, Atkins produced a Technical Note dated 10 January 2025 (Ref. 5218724) in response to the updated noise assessment prepared by Vibrock Limited that raised no objection to the proposal based on noise impact grounds.

9.6 The ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) prepared by Vibrock comply with the stated national and local guidance referenced in the Lancashire County Council Statement of Case.

9.7 To address the points raised as yet to be agreed in the Statement of Common Ground for noise, the points are addressed as follows:

- The Technical Note relating to amendments to my calculations and the proposed alterations to the bunding (CD12.23) and the subsequent revised plans (Ref. SR26) considers the various points relating to the site noise limits for routine operations including those at Woodlands and these alterations to the mitigation would result in site noise levels no more than 10 dB(A) above the background noise levels at all the receptors throughout the life of the development.

- The proposed temporary barrier for the mineral extraction under the proposed bund location (and the bund construction operations south of Woodlands) would address the Council's concerns over the temporary operations (particularly close to that property) and would allow for the mineral extraction prior to bund construction to be able to comply with the site noise limit for routine operations at Woodlands,
- The property known as Woodlands is considered as being of 'high' sensitivity being a residential property and once the mitigation (temporary and then bunding) is in place, the amenity of the external areas will be adequately protected.
- The suggested site noise limit for short term temporary operations of up to 70 dB L_{Aeq, 1 hour} is based on the advice in Planning Practice Guidance (Minerals) for such operations that states that such a limit should be considered *"to facilitate essential site preparation and restoration work and construction of baffle mounds where it is clear that this will bring longer-term environmental benefits to the site or its environs"*. It should be acknowledged that having a limit in place of up to 70 dB L_{Aeq, 1 hour} does not mean that noise levels from operations on the site will be of that magnitude and any noise related to these operations will only be at their highest for a very limited period. Paragraph 223 (g) of the NPPF (CD12.01) explicitly states *"g) when developing noise limits, recognise that some noisy short-term activities, which may otherwise be regarded as unacceptable, are unavoidable to facilitate minerals extraction."*

Adequacy of Information Provided

- 10.1 The ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) provided sufficient information for the application to be determined with regard to the noise impact of the proposal.
- 10.2 The Lancashire County Council Statement of Case (Ref. LCC/2023/0030) that provided the reason for refusal on the grounds of noise did not specify the points that would be raised or would need to be addressed. Nor has the County Council stated that the proposal is in conflict with any referenced national and local planning policy with regard to noise or suggested that the assessment in the ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) were inadequate.
- 10.3 However, following the issuing and agreement of the Statement of Common Ground on noise on 06 March 2026, the points that had yet to be agreed have been outlined.
- 10.4 These points have subsequently been addressed in the proposed minor alterations to the plans and are discussed in the previous section of this proof.
- 10.5 In summary, in my view, there is sufficient information contained with the submitted ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) to determine the noise impact of the development and following the Statement of Common Ground on noise and the subsequent minor alterations to the plans, these remaining points have also been addressed.

Issues on Noise & Vibration Raised by the Rule 6 Parties and Other Consultees

- 11.1 There is one Rule 6 party with an interest in the proposed development (the Lancashire Road Quarry Boundary Residents Committee withdrew as a Rule 6 party on 19 January 2026).
- 11.2 The Rule 6 party (Preesall & Knott End against Quarry Application) originally presented as part of their evidence a document titled "Review of Environmental Impact on Noise Assessment", but this was withdrawn on 02 February 2026. This Rule 6 party made no further comments in relation to noise.
- 11.3 Two documents relating to noise were submitted on behalf of the local residents in Preesall following the initial application.
- 11.4 The main document was a review of the ES Appendix 9 - Noise Assessment (CD1.21) commissioned from Three Spire Acoustics titled "Review of Environmental Impact Noise Assessment Proposed Mineral Extraction and Restoration Land off Bourbles Lane Preesall Lancashire Planning Application Case Nos LCC/2023/0030" dated 18 October 2023 (Their reference TSA/ENA/2023/38) (CD12.19).
- 11.5 The conclusions of this assessment were as follows:

"7.1.2 It is considered that the assessment is too general in nature and does not provide the local planning authority with sufficient information to enable proper scrutiny of the potential noise impact and effects as required by the Environmental Impact Assessment process. It is also considered that that it does not fully comply with the requirements laid out in the national Mineral Planning Guidance.

7.13 I have outlined a number of key areas which require further information or clarification to be provided to the LPA and these include.

- i. Provision of a more detailed background noise survey*
- ii. Provision of details of the calculation predictions and/or noise modelling for each phase of the operations.*
- iii. Provision of details of the calculation predictions and/or noise modelling including assumptions and justification of input data to the local authority for validation.*
- iv. Provision of an assessment matrix table to identify operational noise in relation to the requirements of Mineral Planning guidance and the NPSE guidelines.*
- v. Provision of details on how the prediction validation will be undertaken.*
- vi. Provision of a Noise Management Plan*
- vii. Details of noise monitoring at representative locations relevant to each phase of the life of the site be undertaken.*
- viii. Details on Community Engagement procedures*

7.14 *However, should the LPA consider that there is sufficient information available to them to make an informed decision regarding noise impact and effects from the proposal, I have drafted a set of proposed conditions for noise control, on behalf of local residents, and offer these for consideration by the planning authority.*

- 11.6 This review was submitted prior to the Section 4 - Updated Noise Assessment (CD3.05) which in the opinion of the Lancashire County Council noise consultants, Atkins, addressed the majority of the points brought up as detailed in the Atkins Technical Note dated 10 January 2025 Ref. 5218724 (CD4.02) in response to the updated noise assessment.
- 11.7 The points relating to a Noise Management Plan and noise monitoring can be addressed by Condition and I would recommend this. A draft Noise Management Plan has been prepared for this purpose.
- 11.8 Should more detailed breakdown of calculations still be required, calculation sheets of my replicated site noise calculations for each phase can be provided.
- 11.9 The second document provided was produced by the British Horseriding Society (BHS) titled "Advice on Noise on routes used with horses" dated June 2025.
- 11.10 This document gives some insight on the range of hearing of horses and states:

"Horses can become accustomed to noise, whether short sharp sounds, continuous noise or discontinuous noise (e.g. gunshot, motorway, train). Police and military horses have proven their resilience to noise but the training involved is highly skilled and the horses are carefully selected. Some horses would never reach the same acceptance even with the same training.

Such training may not be in the scope of most horse owners therefore it should be assumed that noise is likely to be distressing to horses which are not accustomed to it. If a human may be disturbed by a noise, then so may a horse be disturbed, but a horse may be concerned about sounds which humans recognise and dismiss instantly as no threat.

Temperament and experience will affect whether individual horses can become habituated to noise or whether their distress level continues or rises. It must not be assumed that a noise that is accepted by one horse will be accepted by all.

Environments which are likely to produce noise should be avoided in the vicinity of routes used by equestrians, particularly byways, bridleways and minor roads which should be protected for quiet recreation and exercise. Sudden loud noises should particularly be avoided, e.g. birdscarer gas-guns."

- 11.11 This advice is relevant, but in the context of the existing ambient and background noise levels due to road traffic and agricultural activity, it would not be expected that the nature of the noise from sand and gravel extraction (that is a continuous noise when that operation is occurring mostly dominated by diesel engine noise and does not generally include any impulsive sounds) would be sufficient to stand out from the normal noise environment in the area of the roads and bridleways and therefore might not be expected to adversely affect horses using those routes.
- 11.12 Other consultees at the time of the original application made mention of noise without more detailed information and these are considered below.

11.13 Hambleton Parish Council's submission dated 28 September 2023 (CD2.06) stated:

“On top of the state of the roads, the additional noise created by the additional large and heavy vehicles travelling through Hambleton will reduce the quality of lives for many especially those whose houses are along the A588 route.”

11.14 Pilling Parish Council's submission dated 07 September 2023 (CD2.01) stated:

*“**Noise impact** - Monitoring must also include the noise impact made by the increased number of HGV's used for transporting materials out and returning to fill the voids. HGV noise increases when empty, and these must not be allowed to run outside the working hours, so protecting our residents. Lancashire County Council must have regard to the Government's Clean Air Strategy. To protect health, the environment and reduce emissions from transport. There will also be an impact to homes enroute with vibrations as the loaded HGV's pass-through Pilling.”*

11.15 Stalmine Parish Council submitted a further comment dated 22 January 2025 (after the updated Vibrock noise assessment) (CD4.07) which included the text:

“Levels of pollution and noise from these vehicles will have a negative impact on the residents.”

11.16 With regard to noise from HGV movements, it has been agreed with the Lancashire County Council noise consultants, Atkins, that *“The potential noise impacts from traffic on the public highway associated with the Proposed Development are not considered to be significant.”*

11.17 Calculations using the methods outline in the Calculation of Road Traffic Noise (1988) (CD12.22) and based on the traffic flows on the A588 that were provided by Lancashire County Council and the proposed development traffic flows and speeds indicate that during the 'worst case' hour, the increase in road traffic noise at 10 metres from the roadside would be less than 1 dB(A) when considering the $L_{A10, 18}$ hour levels as would be the case when considering road traffic noise.

11.18 To put a change in the $L_{A10, 18}$ hour road traffic noise level of less than 1 dB(A) into context, this would not be perceptible to humans and in the classification given in the “Design Manual for Roads and Bridges Volume 11, Environmental Assessment Section 3, Environmental Assessment Techniques, Part 7 LA111 –Noise and Vibration” (CD12.17) such a change would be classified as 'negligible' in the short term and long term.

11.19 Although the methods in the Calculation of Road Traffic Noise (1988) (CD12.22) are not as reliable when considering hourly flows of less than 1000 vehicles, it gives a fair indication of the potential noise impact when examining in the context of other calculation methods.

11.20 With regard to vibration from HGV movements on the public roads and access/haul roads on site, ground borne vibration from site HGVs on highways is sometimes cited as a potential environmental impact but in practice it is only perceptible within a few metres of a very bad pothole and imperceptible on roads complying with the design standards.

11.21 Preesall Town Council's submission dated 03 October 2023 (CD2.09) made similar references relating to HGV noise and vibration, but the main text relating to noise stated:

"7.2 Noise

Impact on local amenity is a key issue for a development of this size close to local residents, with noise and dust are crucial in this regard. Any impact must be shown to be acceptable, particularly to those properties nearest the site.

The Council is disappointed in the initial baseline assessment conducted by the applicant on such an important issue. Only two periods of monitoring of 15 minutes each were conducted at seven locations across the site. The duration of monitoring is entirely inadequate to accompany an Environmental Impact Assessment and should have been longer term i.e. 48-72 hours or longer to establish the prevailing conditions and diurnal variations, which are likely to be lower than those indicated in the report. There is also no study of low frequency noise which is a serious issue for quarries. The proximity of human receptors had also been measured from the access and not for people walking on their property. Residents are entitled to enjoy their own property and home peacefully (see Human Rights Act). This should be taken into consideration by the local authorities when taking any decision or actions."

11.22 The ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) and my subsequent calculations and recommendations have demonstrated that any noise impact from the proposals would be within environmentally acceptable levels.

11.23 The point raised regarding the initial baseline data has been addressed in the Section 4 - Updated Noise Assessment (CD3.05).

11.24 With regard to the duration of the baseline noise surveys, it is not necessary (and it is often not possible) to undertake continuous measurements over a period of 48 to 72 hours especially when one is looking to get representative data at multiple locations.

11.25 Each sample measurement was of 15 minutes duration. In my experience of measuring baseline noise levels (particularly with regard to the measurement of background L_{A90} noise levels), there is very little variation between the values for a 15 minute period and a one hour period.

11.26 As the 15 minute sample measurements are all undertaken during separate hours, the five different samples at each location obtained in 2024 represent 5 separate hours over the course of three separate days including Saturday (note that there were only 4 measurements for Little Tongues Lane).

11.27 In addition to the measurements originally undertaken by Vibrock in 2021 and presented in the ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) and the minimal variation between the background noise level data over the course of those surveys, this demonstrates that the baseline noise data presented in those documents is representative.

11.28 As such, it is my opinion that the data acquired provides a good representation of the background noise levels at the nearest noise sensitive receptors to the proposed Site over a range of days, times and conditions.

11.29 This point is agreed with the Lancashire County Council noise consultants, Atkins, as stated in the Statement of Common Ground on noise:

“Despite minor discrepancies in the timings of the baseline noise monitoring (some measurements being shorter than 15-minutes duration), the background noise levels are considered to be representative of the area”.

11.30 Low frequency noise would not generally be a significant issue with regard to mineral extraction and infilling restoration on a site such as this, with the main noise sources being diesel engine noise that is not dissimilar to that from vehicles on the road or farming operations.

11.31 The main source of low frequency noise on industrial sites is fixed plant. Modern plant such as that proposed for the processing of raised mineral on the site and any treatment of imported infill material will be maintained and any low frequency emissions considered and dealt with at source.

11.32 Based on the distances from the nearest residences to the plant site, the proposed bunding and stockpiles, the plant site noise levels from my calculations and the existing ambient and background noise levels at the dwellings, it is not expected that plant site noise (and any potential localised low frequency elements) would be audible at the receptors.

11.33 The nearest residences are considered in the ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) as being of ‘high’ sensitivity and the external amenity areas are taken into consideration as the assessment of noise from mineral sites as informed by Planning Practice Guidance (Minerals) relates to external noise levels.

Summary and Conclusions

- 12.1 This Proof of Evidence has been prepared to consider and assess the following contentions set out in reason for refusal 6, and in paragraphs 6.22 to 6.24 of the Council's Statement of Case.
- 12.2 This Proof:
- a. Describes the proposal.
 - b. Identifies relevant policy and guidance relating to assessment of noise arising from mineral workings.
 - c. Sets out the methodology employed by Vibrock in the submitted ES Noise Assessment Appendix 9 (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05).
 - d. Identifies the baseline information used, by Vibriock.
 - e. Considers the noise impact arising from the proposed mineral workings as determined by Vibrock.
 - f. Describes how the proposals and assessment comply with relevant policy and guidance.
 - g. Considers the specific contentions advanced by the Council and their consultants Atkins and outlines the potential agreement with the Council and their consultants Atkins on any of these points.
 - h. Demonstrates that adequate information with regard to noise was provided with the application.
- 12.3 The Proof demonstrates that the submitted ES Noise Assessment Appendix 9 (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05) are compliant with local planning policy and national guidance and provides all the information that would allow the determination of the application when considering the noise impact of the proposals.
- 12.4 The information provided and re-examined by me demonstrates that the subject proposal would meet all relevant and applicable criteria relating to an acceptable standard for mineral workings and therefore conforms to an appropriate standard that would protect the reasonable amenity of nearby residential properties.

Dr Robert Storey

Senior Consultant (WBM Limited)