



TECHNICAL NOTE

on behalf of

Homes by Honey

for the site at

**Penistone Road,
Fenay Bridge, Huddersfield, HD8 0JS**

DATE: 10 JANUARY 2025

REF NUMBER: 102384-4

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1 Introduction

- 1.1 Miller Goodall Ltd undertaken a review of the sound assessment report produced by Blue Tree Acoustics (BTA) in relation to current and planned activities at Reliance RG Ltd (RRG) and their effect on a proposed residential development on land on Penistone Road/Rowley Lane, Fenay Bridge, Huddersfield, HD8 0JS which is adjacent to the RRG site.
- 1.2 An outline planning application for upto 75 residential units was submitted to Kirklees Council in July 2020. Matters of layout, appearance, scale, and landscaping are reserved for a subsequent Reserved Matters application. The application was accompanied by a noise assessment produced by Miller Goodall Ltd (Report number 102384 dated 21st August 2020). Miller Goodall's initial noise report considered the noise impact from RRG's site to be of 'low significance'.
- 1.3 Concerns were lodged with the local planning authority by RRG over the impact that new dwellings in close proximity to their site may have. They raised concerns that it would put unreasonable pressure on their operation, by putting noise sensitive receptors too close. RRG also raised concerns over the effect of vibration from the new road on their operation; as a precision engineering firm, vibration from passing traffic may affect their work.
- 1.4 RRG commissioned a noise assessment by Nova Acoustics Ltd (Nova) to refute the MGL report. The Nova report explains that the hours of operation of RRG at the time of the assessment were 05:30–22:45 Monday to Thursday, and 05:30–16:15 on Friday's, with occasional weekend overtime, but that they have permission to operate 24/7. RRG has no planning conditions preventing its 24-hour operation.
- 1.5 The submitted report identified that 24-hour operation would detrimentally affect existing residents adjacent to the site, regardless of the new development. Should RRG consider moving to a 24-hour operation, this would mean looking at their operations and/or new noise mitigation to minimise any noise. They would need to consider mitigation measures referred to in the Nova Acoustics report and employ Best Practicable Means at all times to ensure they are operating in such a way so as not to cause a nuisance to any neighbouring properties. Nova concluded that a noise attenuating bund, within the application site, is necessary to provide sufficient mitigation to noise and vibration.

- 1.6 Following consultation with the LPA, an addendum to the MGL report was submitted in July 2021 which proposed an increase to the façade insulation previously specified to further reduce the risk of complaints from future residents regarding noise from RRG.
- 1.7 Outline planning permission was granted on 15 December 2023, with one condition (condition 15) pertaining to noise as follows:

"15. Plans and particulars relating to the Reserved Matters of layout and/or appearance shall, notwithstanding the submitted information, include a further Noise Impact Assessment report. The Noise Impact Assessment shall:

a) Clearly show which habitable rooms in which plots will not achieve satisfactory indoor sound levels with windows open and for these rooms provide a detailed specification of the noise mitigation measures that are necessary to achieve satisfactory indoor sound levels, including an alternative ventilation scheme where required.

b) Clearly show which external amenity areas at which plots will have daytime noise levels that exceed 50dB LAeq,16hour and for these plots provide a detailed specification for the additional noise mitigation measures that are required so that the outdoor noise levels at these plots does not exceed 50dB LAeq,16hour.

All works which form part of the approved scheme shall be completed prior to occupation of the aforementioned plots and retained thereafter.

Reason: In the interest of protecting the amenity of future occupiers through mitigating the impacts of noise pollution, in accordance with Policies LP24 and Lp52 of the Kirklees Local Plan."

- 1.8 On 9th January 2024 a reserved matters application (reference 2024/61/90058/W) for the erection of 67 dwellings, pursuant to outline permission 2020/92307 for the erection of residential development (up to 75 units) and the discharge of condition 15 (amongst others) was submitted. It was accompanied by an updated noise assessment by MGL (reference: 102384-3, dated 9 April 2024). RRG has again raised concerns regarding the acoustic design of the site and commissioned BTA to undertake a further noise assessment to assess the impact of night-time activities at RRG and the impacts of a potential extension to the RRG premises. This technical note provides a review of the assessment undertaken by BTA for RRG.

2 Review of the BS 4142 Assessment of Night Time Operations at Rowley Mills

- 2.1 The report is titled *“Potential impact of established industrial use upon proposed adjacent residential development, Rowley Mills, Penistone Road, Huddersfield”*. The report title should reflect the assessment of potential future operations too.

Background noise levels

- 2.2 Background noise levels established by MGL have been utilised within the BS 4142 assessments for daytime and night-time periods.

- Whilst this is considered appropriate for the development site, we do not consider it appropriate for existing sensitive receptors around the Rowley Mills site, in particular those located at Ashton Manor and Woodsome Park.
- At para 5.5 it is suggested that dwellings at Ashton Manor *“greater background sound levels due to... Beldon Brook”*. Given the size of Beldon Brook, it is considered very unlikely that background noise levels will be significantly affected by it.
- We consider that background noise levels at Woodsome Park will be lower than across the development site due to the distance from Penistone Road.
- A background level has been proposed for 21:00 and 23:00. This has been labelled representative of evening periods. However “evening” is usually defined as 19:00 – 23:00 in the UK. Additionally, no basis for the evening background level value of 40 dB L_{A90} has been provided.

- 2.3 We consider that background measurements specific to Woodsome Park and Ashton Manor are required in order to assess the impact of noise from RRG on these existing receptors.

Noise Monitoring of Specific Noise Levels

- 2.4 Details of the noise monitoring undertaken on 7th November and on unspecified dates in September and October 2024 are sparse. No details of what was monitored or how it was monitored have been provided. Concerning specific noise measurements, within Appendix 2 of the BTA report the following have been listed as sources considered:

- Extract;
- Forklift 1;
- Gate;
- Fork reverse;
- Workshop;
- Skip;
- Forge;
- CHP;
- Toolroom.

2.5 It is unclear what these measurements are directly of, and how these measurements were undertaken and this raises a number of questions about the relevance and applicability of the data:

- Were noise levels measured at 31.5 Hz and if so, how was the inherent noise floor of the measurement equipment considered? None of the SLMs (Rion NL-52 and NA-28) used can reliably measure below 25 dB(A).
- Were measurements undertaken close to plant or at a distance?
- Were measurements undertaken internally or externally?
- What was the measurement duration?
- What was the time weighting of the measurements?

2.6 Additionally, the weather is described as “mainly dry and calm, with wind speeds <5m/s”. It is unclear if this statement is applicable to all monitoring periods, and this information is insufficient for the support of a full BS 4142 assessment. There is no mention of weather conditions outside of those “mainly dry and calm” periods, e.g. High wind, heavy rain, snow or fog. There is also no mention of temperature, wind direction or other weather conditions referenced in BS 4142.

Calculation and Modelling of Specific Noise Levels

2.7 For noise sources measured outdoors, has any correction been made for residual noise?

2.8 It is unclear why night-time specific noise levels are higher than daytime levels. Have on-time corrections been calculated and, if so, for which sources?

2.9 It is not clear from the report which noise sources have been modelled in the night-time period and which are assessed for the daytime period. It is unlikely, for example, that external forklift truck

movements would occur during night-time periods. Similarly, the skip is unlikely to be used at night (although the activity relating to the skip use are not specified).

Noise Grids

- 2.10 There are no legends or keys on the noise grids within Appendix 2. Please can these be provided/included?
- 2.11 Are the noise levels shown at 1.5 m and 4.0 m correct? The grids appear to change with height but the noise levels reported in the graphics do not change, which is correct?
- 2.12 Has the effect of increasing the height of the boundary treatment (e.g. to 3 m) been modelled?

Assessments

- 2.13 The title of Table 4 appears to be misleading. The assessments in Table 4 refer to worst-case specific noise levels modelled at the worst affected receptor, not those at the nearest noise-sensitive receptor.
- 2.14 A feature correction of +6 dB has been applied to allow for “characteristic features in the industrial specific sound”. Can this please be explained – tonality, intermittency, impulsivity or other reasons?

Context

- 2.15 A para 5.6, it is stated that *“we understand that the nearby dwellings at Ashford Manor, and at Woodsome Park (to the northeast of the site), were also built after operation of the Rowley Mills site had commenced. Noise of an industrial character has therefore long been part of the established soundscape around the site, and existing operational noise is a recognised component of the acoustic environment at these receptors when assessing impact upon these receptors in context.”* This same context applies to the development site.

Report conclusions

- 2.16 At para 6.2 it is stated that *“The results of the assessment indicate that the permitted operational impact of the Rowley Mills site could result in noise impact upon the proposed new residential dwellings being of adverse effect during daytime...”*. This is not supported by the assessments provided. In the worst-case daytime assessment reported in Table 4, the excess of rating over background sound is -2, i.e. 2 dB BELOW background. This would be considered “None” to “Negligible” impact in the worst case, not “Adverse”

2.17 The figures in Table 4 source produces a worse case rating level of 43 dB for current operations during the night-time period. BS 8233 indicates that 30 dBA sound level from the plant, equating to an internal level of around 27dBA or lower, with no significant acoustically distinguishing characteristics is suitable for a bedroom. A partially open window would be expected to give approx. 13 dB reduction in noise level from external to internal, equating to 30 dB internally, this is equal to the target in BS 8233. What consideration has been given to the targets in BS 8233?

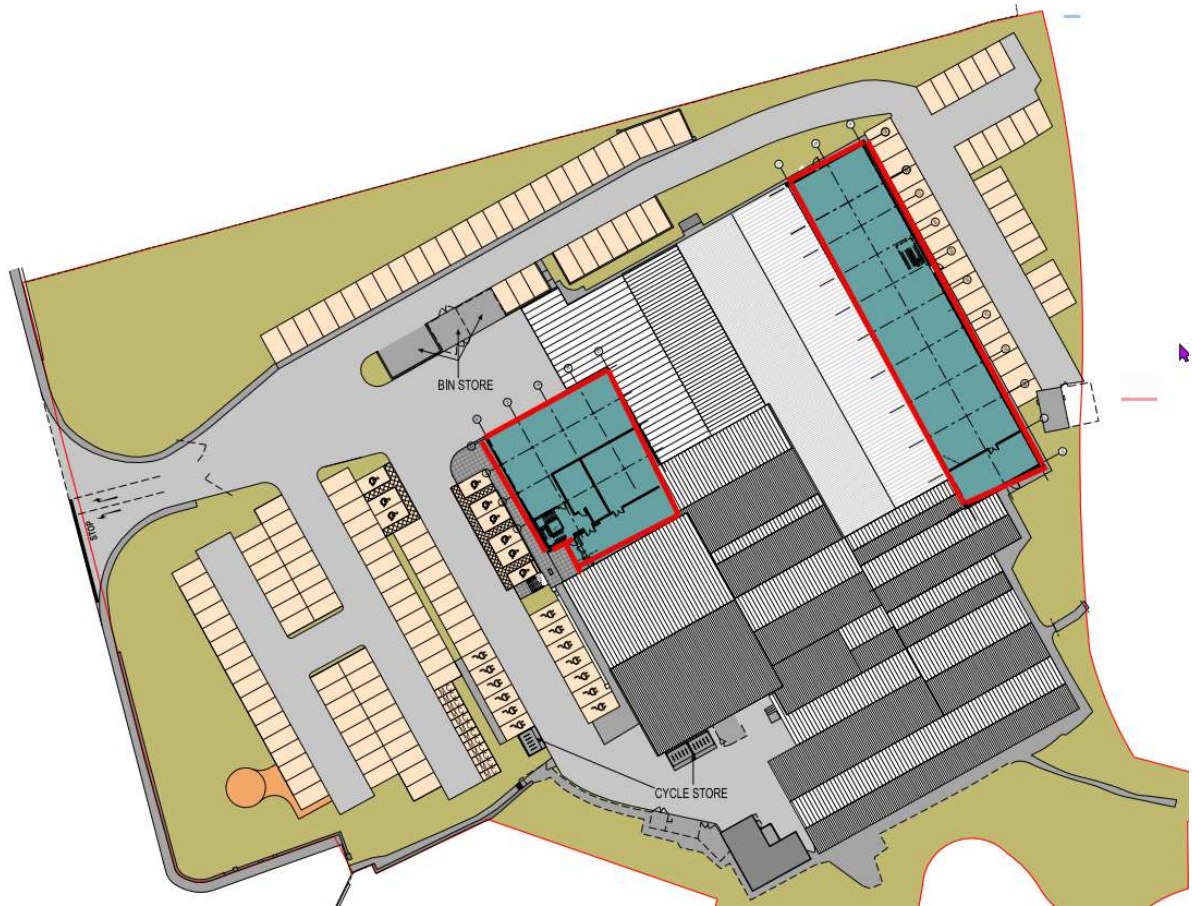
3 Noise Impact of Proposed Development at Rowley Mills

3.1 It is understood that no planning application has yet been submitted for extension of the RRG premises but it is understood that the proposed extensions to Rowley Mills would involve;

- extending the main manufacturing workshop area at the rear of the building with a new 2-storey extension providing manufacturing space at ground floor level and office space at 1st floor level. The extension of the workshop building will move this noise source closer to the boundary and existing receptors to the north east.
- A new 3-storey extension to the front (west) of the site to provide office, conference, and canteen spaces.

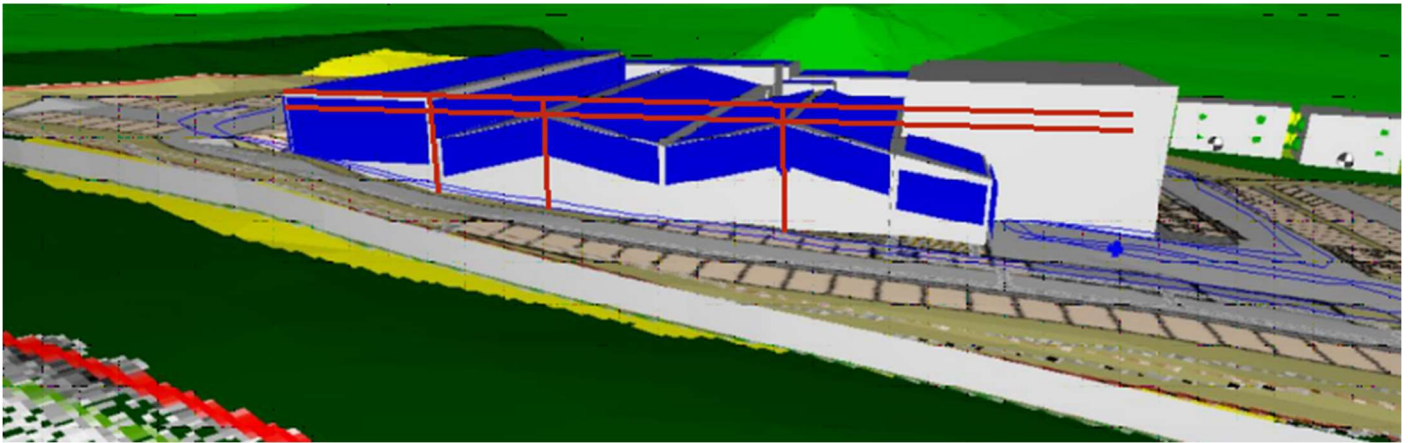
3.2 The location of the two extensions is shown outlined in red in Figure 1 below.

Figure 1 Proposed Extensions at Rowley Mills



- 3.3 The graphic on page 47 (of the BTA report) indicates that the entirety of the new workshop building to the east of Rowley Mills is being modelled as radiating area sources, including the roof. Noise through the roof is likely to be negligible after passing through the first-floor office space. Additionally, walls at first-floor level are likely to have very different noise emissions than the ground-floor owing to the different uses of the spaces.
- 3.4 The same graphic appears to indicate that the eastern extension will be higher than the existing workshop building, contrary to the statement in para 4.8 that *"The existing banking to the carpark will be dug out and retaining works will be undertaken to provide space for the new extension, which will be built to the same height as the existing building"*. A snip of the graphic is provided in Figure 2.

Figure 2 Snip from the 3D Model View within the BTA Report



- 3.5 This change would be the “agent of change”, paragraph 200 of the National Planning Policy Framework is clear that where the operation of an existing business could have a significant adverse effect on new development in its vicinity, the Applicant (or ‘agent of change’) should be required to provide suitable mitigation before the development has been completed.
- 3.6 As the residential development already has Outline approval and is nearing Reserved Matters approval, with RRG yet to submit the application for their extension, RRG would be expected to mitigate against noise impacts on existing receptors, including committed developments.

4 Summary and Conclusions

- 4.1 Whilst it is clear that the observed drop in background noise levels over the night-time period at the development site will make noise from RRG more noticeable, the BTA report is missing many key details which would provide the comfort of a thorough and appropriate assessment of noise from the site. An update is requested which contains the missing information to allow full consideration of the impact of current and proposed operations at RRG.
- 4.2 Existing receptors at Ashton Manor and Woodsome Park have not been considered in any of the assessments. However, the Nova and BTA reports indicate that night-time operations of current operations at RRG could have a significant adverse effect on existing receptors, particularly those in Woodsome Park. Therefore, RRG’s ability to operate during the night time is already constrained by existing sensitive development, rather than the proposed new residential development introducing a new constraint. Background noise measurements at existing receptor locations would be needed to consider this aspect fully.

- 4.3 In relation to the proposed changes to the activities undertaken by RRG, it is clear that the introduction of new noise sources within the existing buildings and/or the extension of the process into new buildings will increase the effect of noise from the site on new and existing receptors. However, in this instance, RRG is the agent of change and has the responsibility to mitigate its own actions. A full assessment of the effect of the changes on existing receptors and the mitigation needed to protect them is requested.
- 4.4 The EHO was satisfied with the mitigation for the site proposed by Miller Goodall is adequate. At the moment, there is evidence to suggest that RRG would cause an issue to existing receptors by working at night, and this is an issue RRG needs to address. The extension of the RRG site is also for them to mitigate. Therefore, Homes by Honey is not disposed to offer more mitigation at this stage.

Glossary of Terms

Decibel (dB) The unit used to quantify sound pressure levels; it is derived from the logarithm of the ratio between the value of a quantity and a reference value. It is used to describe the level of many different quantities. For sound pressure level the reference quantity is 20 μPa , the threshold of normal hearing is in the region of 0 dB, and 140 dB is the threshold of pain. A change of 1 dB is usually only perceptible under controlled conditions.

dB L_A Decibels measured on a sound level meter incorporating a frequency weighting (A weighting) which differentiates between sounds of different frequency (pitch) in a similar way to the human ear. Measurements in dB L_A broadly agree with an individual's assessment of loudness. A change of 3 dB L_A is the minimum perceptible under normal conditions, and a change of 10 dB L_A corresponds roughly to halving or doubling the loudness of a sound. The background noise level in a living room may be about 30 dB L_A ; normal conversation about 60 dB L_A at 1 meter; heavy road traffic about 80 dB L_A at 10 meters; the level near a pneumatic drill about 100 dB L_A .

$L_{A90,T}$ The A weighted noise level exceeded for 90% of the specified measurement period (T). In BS 4142: 2014+A1:2019 it is used to define background noise level.

$L_{Aeq,T}$ The equivalent continuous sound level. The sound level of a notionally steady sound having the same energy as a fluctuating sound over a specified measurement period (T). $L_{Aeq,T}$ is used to describe many types of noise and can be measured directly with an integrating sound level meter.

L_{Amax} The highest A weighted noise level recorded during the time period. It is usually used to describe the highest noise level that occurred during the event.

L_{day} The A-weighted long-term average sound level as defined in ISO 1996-2: 1987, determined over all the daytime periods (07:00 – 19:00) of a year. Referenced in the Environmental Noise Directive 2002/49/EC.

$L_{evening}$ The A-weighted long-term average sound level as defined in ISO 1996-2: 1987, determined over all the evening periods (19:00 – 23:00) of a year. Referenced in the Environmental Noise Directive 2002/49/EC.

L_{night} The A-weighted long-term average sound level as defined in ISO 1996-2: 1987, determined over all the night-time periods (23:00 – 07:00) of a year. Referenced in the Environmental Noise Directive 2002/49/EC.

L_{den} The equivalent continuous sound pressure level of a notionally steady sound having the same energy as a fluctuating sound over a 24 hour period equivalent to 00:00 to 24:00 but with weightings of 5 dB and 10 dB applied to evening and night-time periods respectively to reflect the greater noise sensitivity of the population at those times. L_{den} is derived using the L_{day} , L_{evening} and L_{night} noise indices and is referenced in the Environmental Noise Directive 2002/49/EC.

