

Interim Update

Astley Business Park, Tyldesley, Wigan

Astley Warehouse Action Group

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1.0 Introduction

Murray Acoustics Ltd has been commissioned by the Astley Warehouse Action Group to undertake an independent operational noise survey & assessment of the newly occupied Unit 2 at Astley Business Park, Astley Park Way, Tyldesley, Wigan. This note compares the night-time noise levels predicted in the noise assessment that supported planning permission A/23/96226/MAJOR with the levels measured on site in July 2026, both at the worst affected dwelling and spatially across the surrounding residential area.

This note is an informal interim update, issued in advance of the full survey report. The comparison presented is preliminary and is based on an initial review of the measured data. It does not represent a final position. The comparison is limited to maximum noise levels at night. It is not a complete assessment of the site.

2.0 About the Author

This note has been prepared by Jamie Murray MIOA, Director of Murray Acoustics Ltd. Jamie Murray is a Member of the Institute of Acoustics with over 12 years in practice, advising developers, local authorities and private clients on environmental and industrial noise, including the assessment of industrial and commercial sound to BS 4142.

Murray Acoustics Ltd was instructed by the Astley Warehouse Action Group. Neither Jamie Murray nor Murray Acoustics Ltd has any commercial or personal interest in the site, in the development or in its occupiers. The survey and this note have been undertaken without charge to the residents.



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3.0 The Approved Noise Assessment

The permission is supported by Tetra Tech report 784-B034505 Revision 7, dated 13 May 2024 (herein the approved assessment), this being the revision referred to in Condition 4 of the decision notice.

At its Table 2.1 the approved assessment adopts an internal criterion of 45 dB L_{Amax} in bedrooms at night, taken from the World Health Organisation 'Guidelines for Community Noise' 1999 (herein WHO 1999). Whilst BS 4142 provides the appropriate framework for assessing a source of this nature, this is the criterion the approved assessment adopted and against which it judged itself and is the level below which individual noise events are considered unlikely to disturb sleep.

Receptor R05, 38 Withington Drive, is the closest and worst affected dwelling assessed. The night-time predictions of the approved assessment are given at a receptor height of 4.0 m, representing first-floor bedroom windows. At that position Table 6.3 predicts a night-time maximum level of 51 dB L_{Amax} externally, with the acoustic barriers secured by Condition 4 in place. The corresponding internal level is given as 36 dB L_{Amax} with windows partially open, some 9 dB below the criterion.

The report states 10 dB reduction from open windows.

Every table uses a **more favourable 15 dB.**

Those 5 dB are the difference between pass/fail.

It is noted that Section 5.2 of the approved assessment states that a reduction of 10 dB has been applied for a partially open window, whereas the reduction applied throughout its assessment tables, including Table 6.3, is 15 dB. It is not clear why there is a difference between the stated method and the approach undertaken during the assessment, although it is noted that had the 10 dB reduction been applied, the assessment criteria would have been exceeded by the predicted levels.

4.0 Deviation from BS 4142

BS 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound' (herein BS 4142) is the standard conventionally used to assess sound of an industrial or commercial nature against the prevailing background sound level. Its scope expressly includes sound from the loading and unloading of goods and materials at industrial and commercial premises, and sound from mobile plant and vehicles forming an intrinsic part of the sound emanating from the premises.

BS 4142 is the Standard for assessing industrial noise affecting residential areas.

The approved assessment applies BS 4142 to the proposed building services plant, at its Table 5.2. It does not apply the standard to the service yard, docking and heavy goods vehicle activity, which is the dominant source of noise from the development at night. No reason for the distinction is given in the report.

Had the standard been applied to the yard activity, the approved assessment's own figures indicate that a significant adverse impact would have been the likely outcome. Table 6.2 predicts an external night-time level of 45 dB L_{Aeq} at receptor R05. Table 5.2 adopts a night-time background sound level of 34 dB L_{A90} at that same receptor. The excess over background is therefore +11 dB before any correction for acoustic features. BS 4142 indicates that a difference of around +10 dB is likely to be an indication of a significant adverse impact, depending on the context.

That figure takes no account of the character of the source. Reversing alarms are tonal and intermittent, and dock and trailer impacts are impulsive, each of which would attract a correction under Section 11 of BS 4142 and would raise the rating level further.

No reason for the deviation from BS 4142 is given in the report, and none appears to be recorded on file for why the Council accepted it.

For the avoidance of doubt, the most common application of BS 4142 is for the assessment of new industrial / commercial operations proposed near to existing residential uses. There are no other similar published British Standards that supersede BS 4142, and it is not clear why a bespoke assessment approach has been proposed within the planning noise impact report.

5.0 Measured Levels

Continuous unattended measurements were undertaken between 27 and 29 July 2026 using a Class 1 sound level meter, at a position within the curtilage of the dwelling represented by receptor R05 and at a microphone height of 2.5 m. The equipment calibration was verified before and after use and no abnormalities were observed. Audio recordings were triggered alongside the logged data to permit individual events to be identified.

Night-time maximum levels attributable to operations at the site reach 68 dB L_{AFmax} at the measurement position, which benefits from more favourable acoustic screening than the first-floor windows of the property. Attribution has been made by review of the triggered audio recordings and the associated time history.

The measurement position is not the assessed receptor position. It sits nearer to the boundary barrier and at 2.5 m rather than the 4.0 m first-floor bedroom window height adopted by the approved assessment. The barrier is less effective at the greater height, and the measured level at 2.5 m therefore understates the level at the bedroom windows. Levels at the assessed receptor position have accordingly been derived by modelling, as set out in Section 6.0.

6.0 Noise Modelling

A three-dimensional acoustic model of the site and the surrounding residential area has been constructed in CadnaA using the ISO 9613-2 propagation algorithm. All model inputs are identical including the site geometry, building heights and boundary mitigation of the approved assessment, such that the two scenarios presented below differ only in the source data applied to them.

Scenario A applies the source data of the approved assessment. Scenario B applies source levels calibrated to reproduce the maximum levels measured at the survey position in July 2026. All other model inputs are identical between the two scenarios, such that the difference between Figures 1 and 2 is attributable solely to the source terms.

Scenario B gives a night-time maximum level of 71 dB L_{Amax} at the first-floor bedroom window position of receptor R05, against the 68 dB L_{AFmax} measured at 2.5 m at the survey position. The 3 dB difference reflects the reduced screening afforded by the boundary barrier at the greater receptor height.

Figures 1 and 2 present the resulting night-time L_{Amax} contours for each scenario, at a receiver height of 4.0 m.

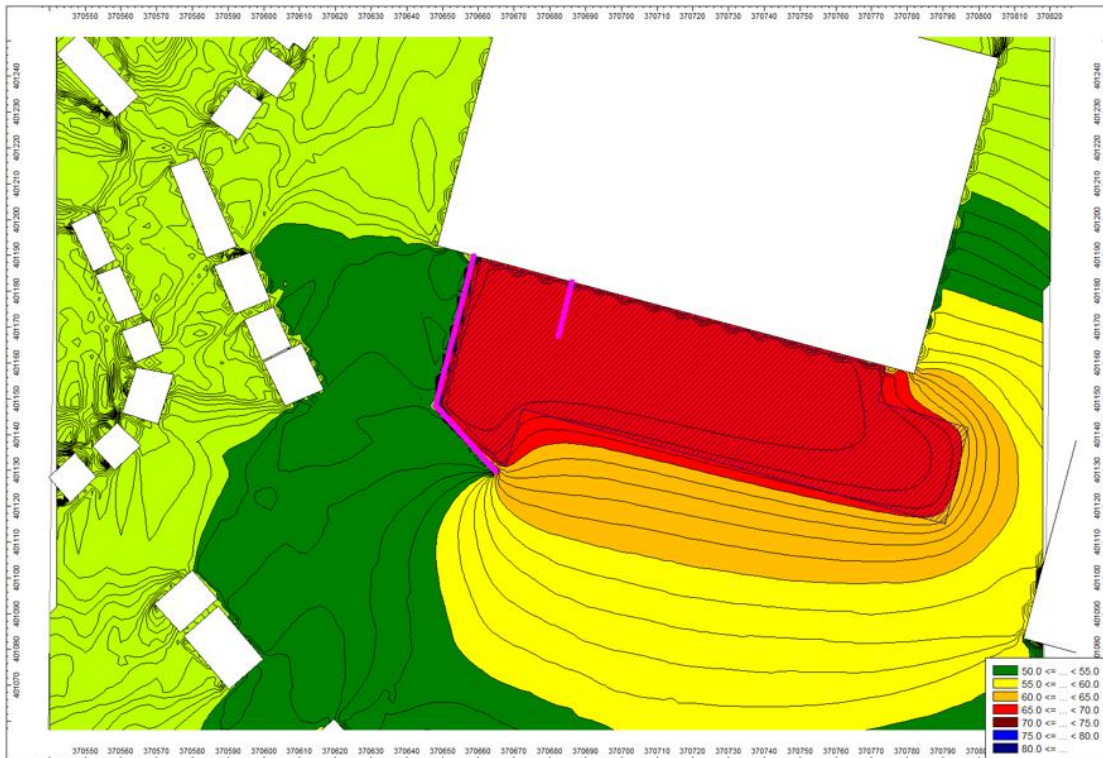


Figure 1: Night-time L_{Amax} contours on the source data of the approved assessment (Scenario A)

Same model. Same houses. Same barriers.

The only thing that changed is how loud the site **actually** is.

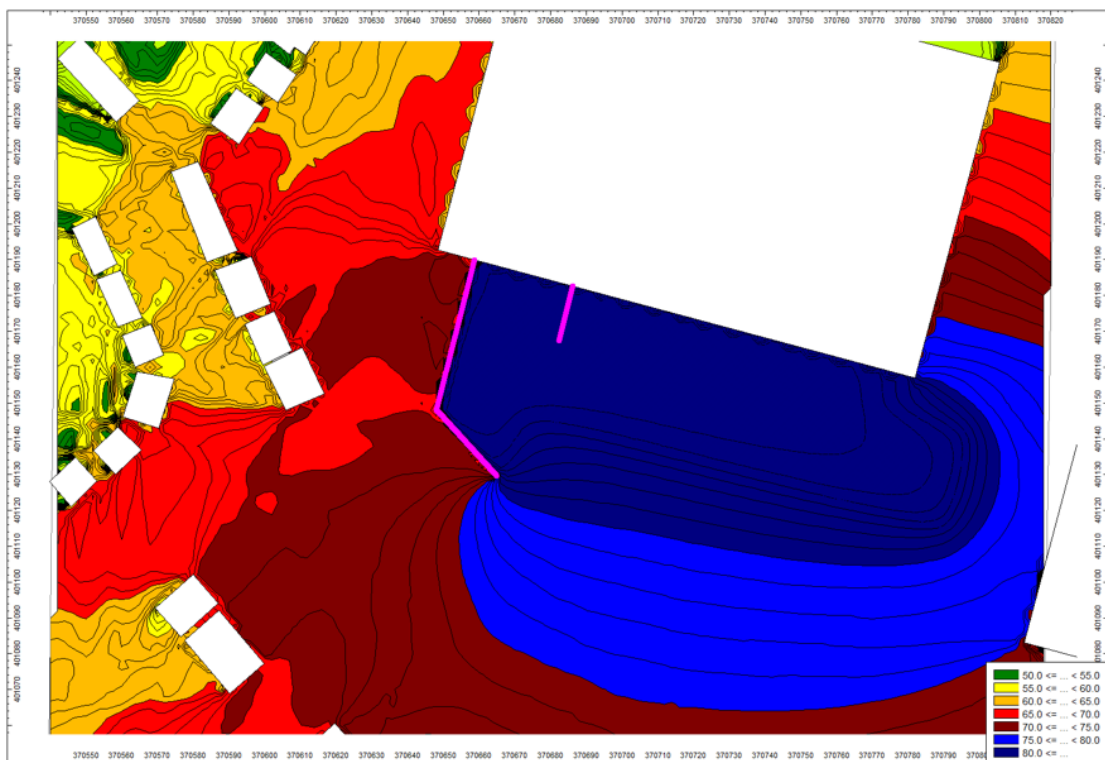


Figure 2: Night-time L_{Amax} contours on measured source data (Scenario B)

7.0 Comparison at 38 Withington Drive

Figure 3 presents a comparison of the levels derived from measurement at the worst affected dwelling against the corresponding predictions of the approved assessment, at the same receptor position and height. Internal levels are derived using the open-window reductions given in the approved assessment itself.

61 dB in a bedroom at night.
Likely to be perceived as **five times as loud as predicted**
during the planning process.

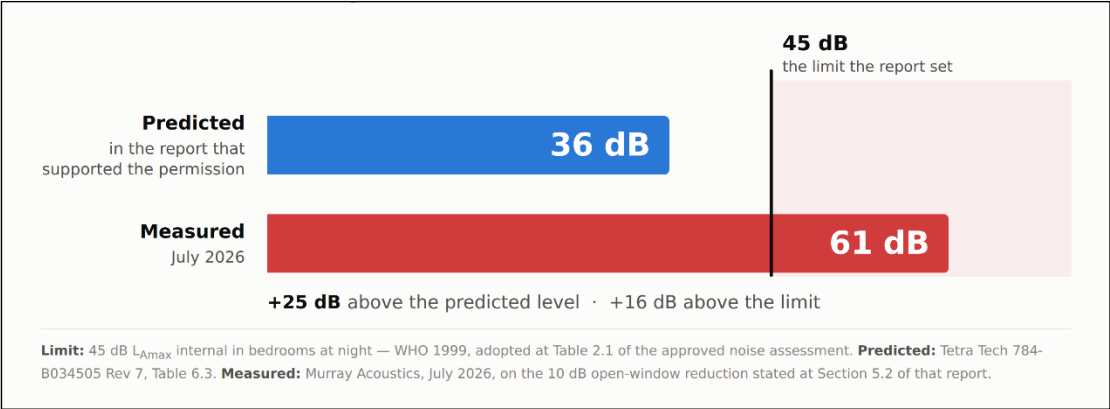


Figure 3: Internal night-time maximum levels at 38 Withington Drive against the adopted criterion

The predicted internal level applies the 15 dB reduction used in the report's assessment tables; the measured internal level applies the 10 dB reduction stated in its method. On a consistent 15 dB basis the measured internal level is 56 dB, and the difference 20 dB.

The levels derived from measurement are approximately 20 dB above the predicted external level, and 25 dB above the internal level predicted for this dwelling in the approved assessment. The decibel scale is logarithmic, and an increase of 10 dB is generally perceived as a doubling of loudness, such that a difference of this order represents individual events of the order of more than four to five times as loud as those predicted.

8.0 Conclusion

At the worst affected dwelling assessed, 38 Withington Drive, the approved assessment predicted a night-time maximum level of 51 dB L_{Amax} at the first-floor bedroom window. Levels derived from measurement at that same position are 71 dB L_{Amax} , some 20 dB higher.

Internally, against the 45 dB L_{Amax} criterion which the approved assessment adopted for itself, its predicted level of 36 dB compares with 61 dB derived from measurement. The contour comparison at Figures 1 and 2 indicates that the difference is not confined to that dwelling, and extends across the first row of properties on Withington Drive.

The dominant source of night-time noise from the development was not assessed against BS 4142. On the approved assessment's own predicted level, and its own adopted background sound level, such an assessment would have indicated a likely significant adverse impact before any correction for the character of the source.

These findings are preliminary and are issued in advance of the full survey report. They are, in the opinion of Murray Acoustics Ltd, sufficient to warrant a full assessment of operational noise from the site to BS 4142, together with measured verification of the mitigation secured by Condition 4 of the planning permission.

9.0 Basis and Limitations

- This note is an informal interim update. The full survey report will set out the complete measurement data, method, calibration records, meteorological conditions and event counts per night, and its findings and conclusions may differ from those presented here.
- Levels at the assessed receptor positions are derived by modelling calibrated to the survey position, and are not direct measurements at those positions.
- The model adopts the site geometry and boundary mitigation of the approved assessment as drawn. As-built barrier and bund heights have not been surveyed and may differ from those modelled; this will be addressed in the full report.
- The observations at Section 4.0 are not a BS 4142 rating assessment. A full assessment to BS 4142, including contemporaneous background sound levels and acoustic feature corrections, will follow in the full report.
- The findings represent the professional opinion of Murray Acoustics Ltd based on the information available at the time of writing.

9.1 Status of this Note

This note is a technical update issued to the client for information. Its status is as follows:

- It is not a report prepared under Part 35 of the Civil Procedure Rules. It is not expert evidence, no duty to the court arises in respect of it, and it carries neither the declaration nor the statement of truth required by Practice Direction 35. Should expert evidence be required in any proceedings, a separate report would be prepared for that purpose.
- It does not constitute legal advice and no opinion is expressed on any question of law. In particular, no opinion is expressed as to whether the noise described amounts to a statutory nuisance under Part III of the Environmental Protection Act 1990, or to a nuisance at common law. Those are matters for the local authority and, ultimately, for a court.
- It has been prepared for the sole benefit of the named client and may not be relied upon by any third party without the prior written consent of Murray Acoustics Ltd.
- The findings are preliminary and are superseded by the full survey report upon its issue. Nothing in this note fetters the findings or conclusions of that report.
- Nothing in this note constitutes a waiver of any right or remedy of the client or of Murray Acoustics Ltd.
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