



ST MODWEN

WATLING STREET, CANNOCK

NOISE ASSESSMENT REPORT

MARCH 2024

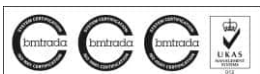
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1 INTRODUCTION

The noise impacts of the proposed development upon the existing residents near to the site have been considered.

1.1 *Site Description*

1.1.1 The site is located approximately 2km east of Cannock town centre on the southern side of the A5 Watling Street at Norton Canes. The site includes the existing Business Park and the open fields lying to the south and west of the existing Business Park.

1.1.2 The existing Business Park forms most of the northern site boundary. Beyond the Business Park to the north is the A5 Watling Street which is a traffic route between Tamworth and the M42 to the east and Cannock and the M6 to the west. Land use beyond the A5 is primarily open fields but with the M6 Toll Road beyond at a distance of approximately 300 metres.

1.1.3 The western site boundary is formed by open fields and the Cannock Extension Canal which has a number of boat moorings. Beyond the canal is Yates Industrial Estate which comprises a number of commercial operations including roofing supplies, service station, vehicle maintenance and a sports and recreation club. The remaining site boundaries to the south and east are formed by open land.

2 BASIS OF ASSESSMENT

2.1.1 Policy SO8.5 within Regulation 19 of the draft Local Plan provides guidance for all major development proposals including noise. The pertinent aspects of Draft policy SO8.5 in relation to the development are reproduced below;

“Development proposals which will cause unacceptable on-site or off-site risk or harm to human health or the natural environment (either individually or cumulatively) will not be permitted.

All major development proposals will:

- *Set out how any air, water, noise, light pollution or soil contamination that may arise from the development will be avoided (or, if it is not possible to avoid, set out how it will be mitigated); ...*
- *Maintain and improve the noise environment through good design which takes account of the acoustic environment (in line with the Noise Policy Statement for England)”.*

2.1.2 It is therefore considered appropriate to base this assessment on current British Standards and appropriate local and national guidance.

- 2.1.3 BS8233:2014 'Guidance on sound insulation and noise reduction for buildings' is the current British Standard providing guidance for acoustic requirements within buildings. The Standard advises appropriate criteria and limits for different building types including dwellings.
- 2.1.4 BS4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound' is the current British Standard providing guidance for assessment of noise impact from industrial and commercial sites. In general, the likelihood of an adverse impact from a particular noise is dependent upon factors including the margin by which it exceeds the background sound level, the character of the noise and the frequency of its occurrence.

3 MEASUREMENTS

- 3.1.1 Baseline measurements have been undertaken to establish the existing noise climate at the site and at local sensitive receptors. Survey work was carried out over two consecutive days and comprised three monitoring positions located adjacent to the northern, western and southeastern boundaries. Noise measurements were made using three calibrated Class 1, integrating sound level meters in accordance with BS EN 60651 and BS 7445:1993. The measurement locations are marked on the site plan below.
- 3.1.2 ML1 was chosen to represent existing sensitive receptors to the north, with Moss Farm being the nearest. ML2 is representative of receptors on the canal moorings to the west, and ML3 is representative of receptors to the east of the site.



3.2 Results

3.2.1 The measured noise levels have been arithmetically averaged and divided into daytime (0700-2300 hours) and night-time (2300-0700 hours) categories. The results are shown in Table 1 below.

Noise Monitoring Location	Daytime $L_{Aeq, 16hour}$ (dB)	Daytime Background $L_{A90,T}$ (dB)	Night-time $L_{Aeq, 8hour}$ (dB)	Night-time Background $L_{A90,T}$ (dB)
ML1	56	54	54	45
ML2	51	47	48	40
ML3	51	48	50	41

3.3 At ML1 and ML2 the dominant noise source was road traffic on the A5 and M6. At ML3 the road traffic noise from the A5 and M6 was distant but was still audible, and noise from the existing industrial area could also be heard.

4 NOISE IMPACT

4.1.1 The baseline noise levels measured have been used to establish a potential noise threshold and quantify the potential impact of noise from the possible development on existing sensitive receptors. To inform the assessment, British Standard 4142: 2014+A1:2019 Methods for rating and assessing industrial and commercial sound, has been used.

4.1.2 Noise would also be expected from external mobile and fixed plant, vehicle movements, and noise break-out from the units when bays or doors are open. Any new industrial or commercial units would be expected to comply with Noise at Work Regulations, meaning that internal levels of future units would not be expected to exceed the lower action value of 80dB(A). Noise propagation calculations have been used to determine the specific sound level at existing sensitive receptors (ESRs) from the proposed industrial unit.

4.1.3 BS 4142 defines a rating noise level as a noise level to which a penalty has been applied to account for audible characteristics in the noise. It considers a rating level below the background sound level to be a low impact at ESRs, depending on context. The day and night-time background sound levels presented in Table 1 can be considered to be

the design criteria for the development. By setting a noise limit equal to the measured background sound levels, compliance with these limits, in accordance with BS4142, would ensure that the amenity of ESRs is protected.

- 4.1.4 Noise is not expected to have an impact at receptors to the north and east of the site. Calculations based on the assessment assumptions and the background sound levels suggest that there is potential for a noise impact at receptors at the canal moorings. However, where the unit is used as a warehouse or for light industrial activity, rather than an activity which generates significant levels of noise, noise levels at the moorings are more likely to be acceptable.
- 4.1.5 Good acoustic design would be adopted into the development design and include a standoff distance from the site boundaries closest to ESRs, to reduce the need for further mitigation. This applies mainly to the western and north-western areas of the site.
- 4.1.6 The orientation of the units is important and building massing could be used to screen ESRs from noisy activities. This can be achieved by using the development itself as a noise barrier, with façade openings, delivery areas and external plant placed on the screened side of units furthest away from ESRs.
- 4.1.7 Localised acoustic barriers in the form of fencing could be used as required around plant areas, delivery areas, along the site boundary and in between units. Good acoustic design in terms of layout and orientation will be appropriate to mitigate noise from the identified sources and to reduce the need for barriers.
- 4.1.8 Mitigating the noise break out of the units will be a key factor in reducing the noise impact at ESRs. Specific acoustic façade details can be developed to minimise noise emissions from the units.
- 4.1.9 The indicative site layout incorporates good acoustic design features, with the orientation of the building opening facing into the site, away from the receptors.

Vehicle movement

- 4.1.10 Access into the development is shown in the indicative site layout, with appropriate screening of vehicle activity from the canal moorings provided by employment buildings nearest to the canal. Consequently, it is considered that several vehicle movements could occur during the day and night without exceeding the BS 4142 'low impact' assessment at the canal moorings.

5 CONCLUSIONS

- 5.1.1 This assessment has been undertaken and accords with local and national planning policy and guidance.
- 5.1.2 The results of a noise survey indicate that the dominant source of noise currently experienced at the existing sensitive receptors is traffic on the A5 and M6 Toll, with occasion distant industrial noise being audible.
- 5.1.3 With the incorporation of mitigation measures and good acoustic design principles, noise impacts from the employment units and vehicle activity would be low. This would ensure that the amenity of all existing sensitive receptors is protected.
- 5.1.4 The background sound levels presented in this report can be considered as appropriate noise limits for the industrial noise as it will be experienced at the ESRs. Therefore, in accordance with BS4142, a noise rating level from the development that is equal to or less than the background sound levels at existing sensitive receptors would be compliant with these limits.
- 5.1.5 Compliance with the limits would ensure that the amenity of ESRs is protected.
- 5.1.6 The final acoustic design scheme would be developed at the detailed design stage when the detailed layout and further information on the end users are available.

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