Weybridge Business Park, Addlestone Rd, Addlestone KT15 2UP

Acoustics Peer Review

for Runnymede BC, Runnymede Civic Centre, Station Rd, Addlestone KT15 2AH

Our Reference	Your Reference	Issue Date	Author	Approver	Revision History
21745R02PKMW	-	30/05/2022	Paul Kelly MIOA	Miles Woolley MIOA	First issue

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Executive Summary

Environoise Consulting Limited has been instructed by Runneymede Borough Council to peer review a noise report by others[1] associated with the proposed industrial development at Weybridge Business Park, Addlestone Rd, Addlestone KT15 2UP.

The key report findings and recommendations are as follows:

- We recommend that representative background noise levels should be determined for each daytime, evening and night-time period separately and an assessment done against the lowest 'modal' value to fully consider the periods of proposed operations.
- We recommend that Plant Rating noise levels limits for each of the identified NSRs are provided in the report with consideration of the daytime, evening and night-time periods. The limits should also consider the cumulative impact of the plant and other proposed industrial / commercial sources (e.g. HGV delivery, FLT movements) on the site.
- It is of our opinion that even though the predicted maximum noise levels from proposed operations are below those from existing sources (e.g. road traffic), they could be perceived as distinct from the existing road noise sources. As such, an assessment should be done to fully consider the maximum noise levels from proposed operations or measures recommended to suitably reduce the impact of these.
- We recommend that confirmation is sought of the existing types of vehicles movements experienced by the NSRs. If there is potential that proposed HGV noise will be discernible, then a penalty correction should be applied, and a reassessment of the BS4142 noise impact done.
- We recommend that details of delivery noise management are provided in the Report together with reference to the appropriate government guidance documentation for quiet deliveries.
- Given the proximity of NSRs to the proposal site, it is advisable that detailed BS5228 noise and vibration impact assessments are done to inform a CEMP, particularly where high noise and vibration activities are proposed e.g piling. Boundary monitoring during the demolition / construction phases should also be considered.

[1] AAC Noise Assessment Report (Project No: 100492 dated April 2022) prepared for Bridge Industrial. Hereafter referred to as the 'Report'.

1 Peer Review of Report

1.1 Report Information

1.1.1 The reviewed report is AAC Noise Assessment Report (Project No: 100492 dated April 2022) prepared for Bridge Industrial. Hereafter referred to as the 'Report'.

1.1.2 We have provided comment generally where items in the Report could potentially affect the assessment outcome.

1.2 Criteria

Construction Noise Impact

1.2.1 The proposed criteria and assessment methodology for changes in road traffic flows and car park noise impact is reasonable and no further comment is given.

Off-Site and On-site Road Traffic Noise Impact

1.2.2 The proposed criteria and assessment methodology for changes in road traffic flows and car park noise impact is reasonable and no further comment is given.

Industrial / Commercial Noise Impact

1.2.3 Although not specifically stated in the Report, except alluded to in section 6.2.23, it is apparent that a BS4142 noise impact target of a 'Rating Level of less than 5dB above the representative background noise level' has been adopted. A ≥5dB excess is considered an 'adverse impact' in BS4142. We assume the target adopted is based on an interpretation of the Environoise pre-application advice review[2] which stated that proposed HGV deliveries and Plant noise '*should be assessed to avoid an adverse impact'*. This is considered acceptable given the context of the existing industrial / commercial type noise environment. However, as the target chosen is at the limit before an adverse impact would occur, any assessment done should be considerate of this and be suitably robust.

[2] Report ref: 21745R01SWPK

1.3 Noise Survey

1.3.1 A long-term unattended noise survey was completed between Friday 4th and Friday 11th February 2022 at 4 positions representative of the nearest noise sensitive receptors (NSR) to the proposal site. This is considered sufficient, and no further comment is required.

1.4 Representative Background Noise Levels

1.4.1 Section 2.7 of the Report states the following in response to the Environoise pre-application advice report:

The points raised have been covered in this assessment however, noise has not been assessed separately in the evening period, only the daytime and night-time periods are specified by BS4142:2014+A1:2019. Additionally, the evening period is likely to be a more sensitive period than the daytime period but less sensitive than the night-time period so a thorough assessment of the night-time period is considered sufficient.'

1.4.2 Sections 4.3.1 and 4.3.2 of the Report also stated the following:

As part of an assessment of industrial or commercial sound, following the guidance of BS 4142:2014+A1:2019, a representative background sound level must be determined. Typically, the modal $L_{A90,15min}$ value from the relevant time period is used.

The representative $L_{A90,15min}$ has been identified for both monitoring locations during the daytime period 07.00 – 23.00 and night-time period 23.00 – 07.00 using statistical analysis.

1.4.3 A daytime noise impact assessment considering day and evening periods (typically regarded as 07.00 – 19.00 and 19.00 – 23.00hrs respectively) was recommended by Environoise given the proposed 24-hour, 7-day week operations and that background noise levels tend to reduce during the evening in urban environments corresponding to reduced traffic flows and typical closing hours of commercial / industrial operations. This therefore can lead to increased sensitivity for NSRs as has been identified in the Report comment reproduced in section 1.4.1. Where a statistical analysis of the noise data has been done to determine the representative 'modal' background noise level for the whole daytime period (07.00 – 23.00hrs), the distribution of results can tend to 'skew' towards a higher value obtained during the 'noisiest' periods of the daytime at the expense of results obtained during 'quieter' (typical evening) periods.

1.4.4 Section 4.3.3 of the Report states:

The background sound level at L1 has been [used] to represent R01, R02 and R03, the background sound level at L2 has been used to represent R06 and R07 and the background sound level at L3 has been used to represent R04 and R05.

1.4.5 It is noted in Table 4.11 that an overall representative background value for each survey position is reported and used for assessment. It is not certain how this value has been determined, but assume it is the modal value over the entire week's survey. It is also noted that the overall values are higher in some instances than those obtained for some individual days / nights. Given the 24-hour, 7-day week operations of the proposed site, this could potentially mean that the level of impact would be greater on certain days than on others resulting in an 'adverse impact' as per section 1.2.3.

Recommendation

1.4.6 We recommend that representative background noise levels should be determined for each daytime, evening and night-time period separately and an assessment done against the lowest 'modal' value to fully consider the periods of proposed operations.

1.5 Plant Noise

1.5.1 Section 6.2.8 of the Report states the following regarding proposed plant items:

At this stage no fixed plant has been specified and has therefore not been included in the assessment.

1.5.2 It is typical that plant details are not available at an early stage of the planning process and the requirement for a detailed plant noise impact assessment Conditioned within any Planning Permission. However, it is also typical that plant noise limits are instead given based on the representative background noise levels that will allow for the targets to be met at the NSRs. These levels can then either be referenced in any planning condition or can be used to inform the RIBA Stage 3 / 4 plant designs and specifications.

Recommendation

1.5.3 We recommend that Plant Rating noise levels limits for each of the identified NSRs are provided in the report. The limits should also consider the cumulative impact of the plant and other proposed industrial / commercial sources (e.g. HGV delivery, FLT movements) on the site.

1.6 Maximum Noise Levels

1.6.1 An assessment of maximum noise levels generated by proposed noise sources during the night-time periods has been done. Section 6.3.7 of the Report states:

The predicted maximum noise event levels from the commercial operations are higher than the WHO Community Noise Guideline of 60 dB(A) at three of the seven noise sensitive receptors, however, they are lower than the existing measured night-time maximum levels so mitigation will not be required.

1.6.2 Section 4.4.2 of the Report also states that:

The [night-time] maximum noise levels measured are likely to be from vehicles travel on the local highways.

Recommendation

1.6.3 The WHO Guideline target applies to 'anonymous' noise sources (e.g. road traffic). However, the targets would not typically apply to noise generated by proposed industrial / commercial sources. It is of our opinion that even though the predicted maximum noise levels from proposed operations are below those existing, they could be perceived as distinct from the existing road noise sources. As such, an assessment should be done to fully consider the proposed maximum noise sources or measures recommended to suitably reduce the impact of these.

1.7 HGV Delivery Noise

1.7.1 Table 6.3 of the Report provides a description of the BS4142 noise penalty corrections applied to obtain the Rating level of HGV noise. A 0dB correction has been justified for HGV movements as follows:

The existing ambient noise environment is currently affected by vehicle movements so this source will have similar characteristics and is unlikely to be prominent therefore no penalty has been added.

1.7.2 The above justification is acceptable if existing vehicles movements experienced by all the NSRs throughout all periods include HGVs operating under the same conditions as those proposed. If this is not the case, then a noise penalty correction should be applied as the noise could be discernible, particularly for NSRs close to the site and affected less by road traffic noise.

Recommendation

1.7.3 We recommend that confirmation is sought of the existing types of vehicles movements experienced by the NSRs. If there is potential that proposed HGV noise will be discernible, then a penalty correction should be applied, and a reassessment of the noise impact done.

1.7.4 There are no recommendations in the Report for the management of delivery and loading / unloading noise so that this is not unduly generated. We recommend that details of this are provided in the Report together with reference to the appropriate government guidance documentation (e.g. https://www.gov.uk/government/publications/quiet-deliveries-demonstration-scheme).

1.8 Construction Noise

1.8.1 Section 5.1.5 of the Report states that:

It is anticipated that although the main construction phases may be audible at times, they will result in no more than a minor adverse impact, only during the daytime'.

Recommendation

1.8.2 Given the proximity of NSRs to the proposal site, it is advisable that detailed BS5228 noise and vibration impact assessments are done to inform a CEMP, particularly where high noise and vibration activities are proposed e.g piling. Boundary monitoring during the demolition / construction phases should also be considered.