Job Title:	Welbeck Wharf, River Road, Barking
Document Reference:	66201685-MLM-ZZ-XX-TN-YA-0001
MLM Reference:	SL/66201685/SL
Revision:	C01
Status:	For Information
Date:	20 November 2020

Noise Impact Assessment Addendum

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Date Sent:	20 November 2020		

1 Introduction

MLM Consulting Engineers Ltd have carried out a Noise Impact Assessment (Document reference: 103507-MLM-ZZ-XX-RP-YA-0001) to support a planning permission for the change of use of the existing B8 commercial storage and distribution facility at Welbeck Wharf, River Road, Barking, to flexible Class E (light industrial), Class B2 (general industrial) and Class B8 (storage and distribution).

This Noise Impact Assessment Addendum has been prepared to assess the conversion of the ancillary office space at the northern tip of the site to Class E (light industrial), Class B2 (general industrial) and Class B8 (storage and distribution).

2 Assessment

2.1 Updated Noise Impact Assessment

Our noise modelling exercise has been updated to assess the change of the existing ancillary office to Class E (light industrial), Class B8 and B8, assigning the above mentioned Indoor Reverberant Level of 80 dBA and the minimum composite sound reduction performance of 35 dB R_w to this building.

The output from the updated acoustic modelling exercise has identified that the specific sound level resulting from the proposed E (light industrial), B2 and B8 uses is predicted to be 38 dBA at 1m from the worst-affected residential window (rear windows of the properties located along Waverley Way).

Table 1 below presents an updated BS 4142 assessment of the likely impacts based on the latest assumptions and modelling outputs described above.

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Table 1: Assessment of B2/B8 Commercial Noise Impacts at Receptors					
Receptor	Assessment Period	Predicted Specific Sound Level at 1m from a window, dB $L_{Aeq,T}$	Background sound Level, dB $L_{A90,T}$	Excess of specific over background sound level, dB	BS 4142 Significance of Impact
Dwellings to Rear of Waverley Way	Daytime	38	48	-10	Low impact
	Night-time		40	-2	Low impact

As may be seen with reference to Table 1, if all existing buildings at the site are to be used under E / B2 / B8 use classes, this would be expected to lead to no more than a low impact at the worst-affected noise-sensitive residential receptor, when assessed in accordance with BS 4142. In relation to our previous assessment, this assessment has identified a +2 dBA increase as a result of the proposed change of use. Whilst the impacts are anticipated to be marginally higher than under the initial proposals, this is still a positive indication that complaints are unlikely.

Similarly, when considering the potential audibility of these sources within the habitable rooms of the nearest noise-sensitive receptors, this marginal increase of +2 dBA is still anticipated to fall more than 10 dB below the recommended BS 8233 internal ambient noise level limits during the daytime period, assuming windows are opened for the provision of background ventilation. This is a positive indication that general inaudibility would be achieved during the daytime period.

During the night-time period, the assessment has again shown that activities may be faintly audible. However, given the low levels of exceedance predicted, it is considered that complaints would remain unlikely.

Notwithstanding the above, whilst it is considered unlikely to be required, should the proposed B2 activities be required for 24-hours a day, then it may be necessary to uprate the facades of the buildings to minimise noise break out.

Alternatively, reducing noise emissions at source over this critical period would be considered a more feasible solution. To that end, night-time operations would need to be limited to a level of 75 dBA L_{Prev} within the buildings in order to ensure general inaudibility is achieved 24 hours a day.

3 Conclusion

MLM Consulting Engineers Ltd has been commissioned to provide an updated noise impact assessment to establish the likely impact of the proposed changes of use across the application site, at River Road, Barking, to Class E (light industrial), Class B2 (general industrial) and Class B8 (storage and distribution).

Accordingly, our assessment has identified that if all existing buildings on site were to be converted to E, B2 and B8 use, a marginal +2 dBA increase can be expected when compared to the initial scheme proposals. Notwithstanding, noise emissions form the proposed scheme would still be expected to be no more than a low impact at the worst-affected noise-sensitive residential receptors. To that end, from a noise perspective, the proposed change of use to E, B2 and B8 uses is considered generally acceptable.

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