

NOISE TECHNICAL NOTE

CLIENT:	Knowsley Borough Council
PROJECT:	Halewood LUF
SUBJECT:	Response to Environmental Health Comments 17 th March 2025
JOB No.:	ST21181
DATE:	31 st July 2025
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APPROVED BY:	Jack Rostron - MIOA

1 INTRODUCTION

This technical note presents a response to the consultation comments submitted by Knowsley Borough Council Environmental Health (KBC). The comments were received by Wardell Armstrong LLP (now SLR Consulting Ltd) on 10th July 2025 regarding the submitted Noise Impact Assessment (ref. ST21181/0002) dated March 2025. For ease of reference the comments from the EHO are shown in **Black Bold** with our response in blue below.

2 RESPONSE TO ENVIRONMENTAL HEALTH COMMENTS

KBC Comment 1

The sports pitch currently has a 3.5m acoustic fence surrounding, was this considered during the background noise survey as this is not detailed within the report, and the noise levels used for LT1 and LT2 would be higher if the noise barrier was not in place. The acoustic fence is not detailed within Table 10: Model Settings associated with background noise levels and the assessment states that it does not include the mitigation of acoustic fences.

WA Response 1

The existing 3.5m high acoustic fence was in situ during the baseline noise survey and therefore the survey results include the noise reduction afforded by the existing mitigation.

KBC Comment 2

A discussion has not been included on the 3 new multi-use games areas – in relation to time of operation, number of children / adults using the 3 pitches – noise levels of the 3 pitches all in use at the same time as the current football pitch – what is the worst-case scenario? Is the predicted noise within the table 13 / 14 for the 3 new pitches?

WA Response 2

The noise level utilised in the modelling was based on survey data recorded during a football match which took place on Sunday 17th November 2024. The football match took place on the existing 11 a-side AGP at Halewood LUF and therefore likely represents an over-

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estimation of noise levels produced on a smaller AGP. Each of the 3 proposed pitches had the same measured noise level and were assessed as operating simultaneously. This scenario likely represents the worst-case situation.

KBC Comment 3

An assessment is required for open windows, it can not be assumed that if the level exceeds 48dB $L_{Aeq, T}$ that residents will have their windows closed. Most of the houses surrounding the centre will not have any internal ventilation (trickle vents etc) due to the age of the development and windows / patio doors have been observed to be open.

WA Response 3

A worst-case hour assessment is presented below which includes the existing noise of the 11 a-side pitch in use, the 3 proposed AGP pitches with the same noise level and the proposed re-configured car park. Table 1 presents the results of the scenario described above with the existing 3.5m acoustic barrier in situ.

Table 1: Daytime Noise Intrusion Levels $L_{Aeq, 1hr}$				
Receptor	External Specific Sound Level (dB)	Windows Open (dB)	Windows Closed (dB)	Criteria L_{Aeq}
ESR1	54.8	39.8	24.8	35.0
ESR2	49.4	34.4	19.4	35.0
ESR3	51.3	36.3	21.3	35.0
ESR4	55.0	40.0	25.0	35.0
ESR5	56.1	41.1	26.1	35.0
ESR6	56.4	41.4	26.4	35.0
ESR7	57.4	42.4	27.4	35.0
ESR8	57.8	42.8	27.8	35.0
ESR9	58.0	43.0	28.0	35.0
ESR10	57.1	42.1	27.1	35.0
ESR11	56.1	41.1	26.1	35.0
ESR12	54.7	39.7	24.7	35.0
ESR13	55.4	40.4	25.4	35.0
ESR14	55.1	40.1	25.1	35.0
ESR15	55.1	40.1	25.1	35.0

As shown above, internal noise levels at the nearest ESRs with windows closed are predicted to be below the 35dB noise guideline level for daytime periods. However, with windows open, assuming a 15dB reduction for a partially open window the predicted noise levels exceed the internal guideline criterion.

The noise contour plot is presented in Figure 1 below.

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Figure 1: Noise Contour Plot – All Sources

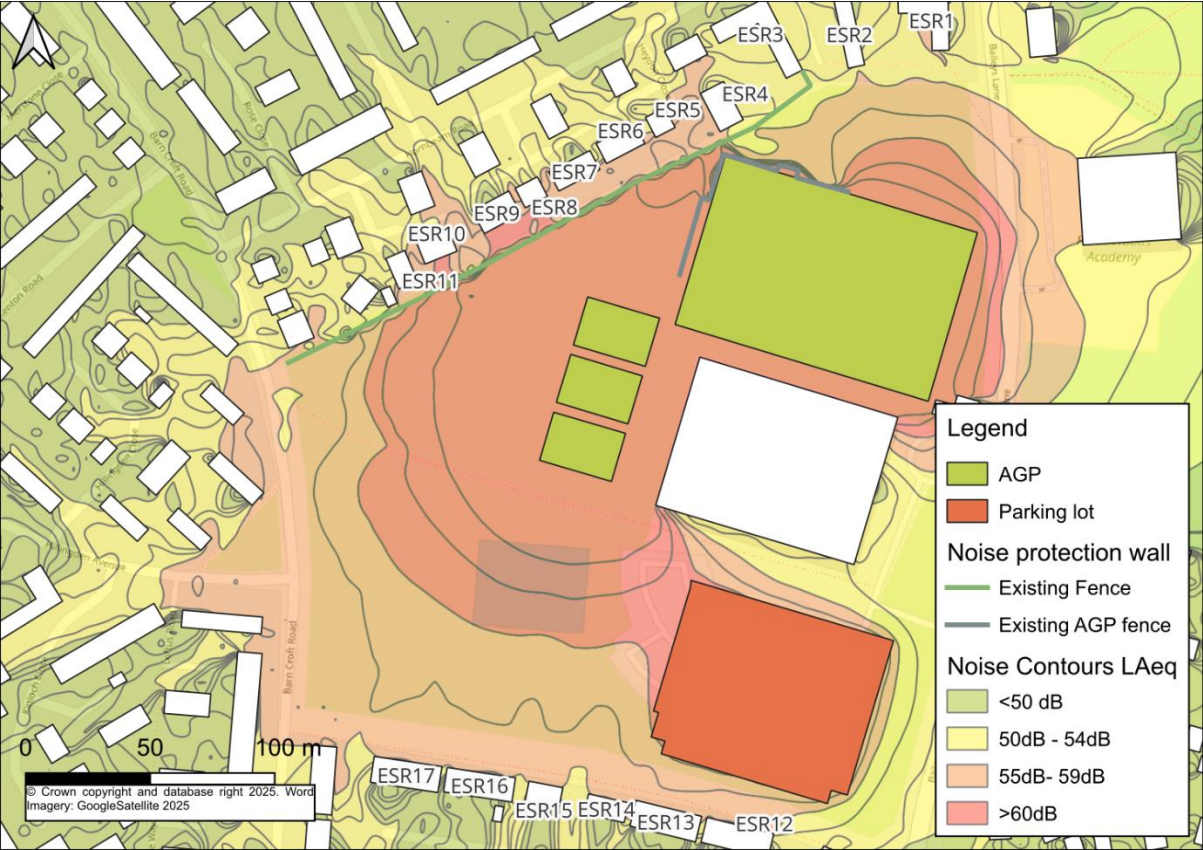


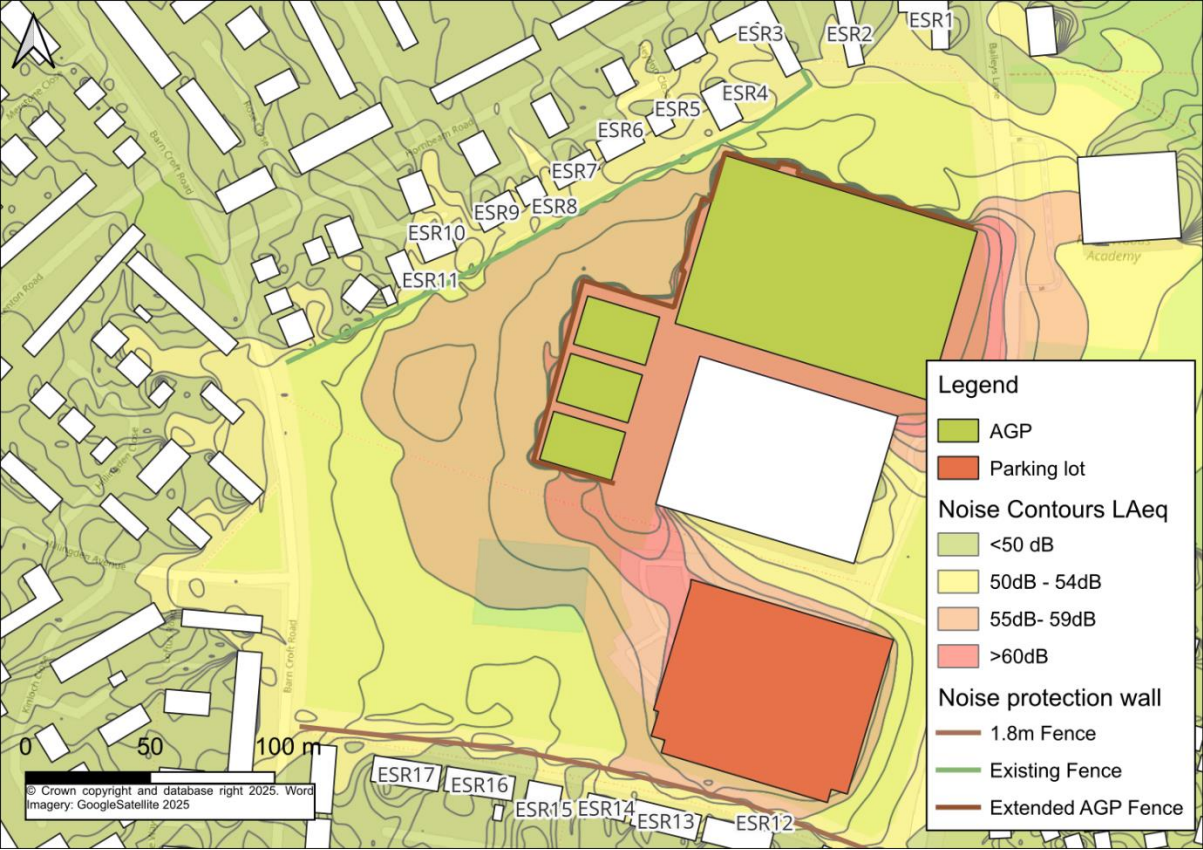
Table 2 below presents the results of the worst-case scenario with an extended 3.5m high acoustic barrier, the location of which can be seen in Figure 2.

Table 2: Daytime Noise Intrusion Levels $L_{Aeq,1hr}$ – Mitigated Scenario				
Receptor	External Specific Sound Level (dB)	Windows Open (dB)	Windows Closed (dB)	Criteria L_{Aeq}
ESR1	50.7	35.7	20.7	35.0
ESR2	46.6	31.6	16.6	35.0
ESR3	49.8	34.8	19.8	35.0
ESR4	50.1	35.1	20.1	35.0
ESR5	51.6	36.6	21.6	35.0
ESR6	51.1	36.1	21.1	35.0
ESR7	52.0	37.0	22.0	35.0
ESR8	51.9	36.9	21.9	35.0
ESR9	51.2	36.2	21.2	35.0
ESR10	49.8	34.8	19.8	35.0
ESR11	49.6	34.6	19.6	35.0
ESR12	51.0	36.0	21.0	35.0
ESR13	51.9	36.9	21.9	35.0
ESR14	50.3	35.3	20.3	35.0
ESR15	49.0	34.0	19.0	35.0

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As shown above, worst-case daytime internal noise levels at all assessed ESRs are predicted to fall below the 35dB criterion with windows closed. With windows open, predicted noise levels at some of the receptors will marginally exceed the 35dB criterion.

Figure 2 – Noise Contour Plot – All Sources Mitigated



External noise levels are likely to fall below the 55 dB WHO criteria for external amenity spaces.

In accordance with the NPPF, the magnitude of impact at the ESRs is summarised in Table 3 below.

Table 3: NPPF Magnitude of Impact Summary			
Receptor	External Amenity	Windows Open (dB)	Windows Closed (dB)
ESR1	NOAEL	LOAEL	NOEL
ESR2	NOAEL	NOEL	NOEL
ESR3	NOAEL	NOEL	NOEL
ESR4	NOAEL	LOAEL	NOEL
ESR5	NOAEL	LOAEL	NOEL
ESR6	NOAEL	LOAEL	NOEL
ESR7	NOAEL	LOAEL	NOEL
ESR8	NOAEL	LOAEL	NOEL
ESR9	NOAEL	LOAEL	NOEL

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Table 3: NPPF Magnitude of Impact Summary			
Receptor	External Amenity	Windows Open (dB)	Windows Closed (dB)
ESR10	NOAEL	NOEL	NOEL
ESR11	NOAEL	NOEL	NOEL
ESR12	NOAEL	LOAEL	NOEL
ESR13	NOAEL	LOAEL	NOEL
ESR14	NOAEL	LOAEL	NOEL
ESR15	NOAEL	NOEL	NOEL

Summary

In accordance with the NPPF, the proposed changes to the development at Halewood are unlikely to exceed the **Lowest Observed Adverse Effect Level (LOAEL)** at the assessed ESRs. For impacts which are LOAEL, the NPPF recommends sound levels are mitigated and reduced to a minimum. As such, mitigation has been included in the form of extending the existing 3.5m high acoustic fence to encompass the proposed additional AGPs, .

It should be noted that, predicted noise levels are not expected to change the overall noise climate in the area and that the 11 a-side APG has been operating without any complaints in relation to noise.

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For Wardell Armstrong



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