

Date: 21st April 2026

HILL TOP FARM, EARL SHILTON EXTERNAL NOISE TESTING FOR CONDITION DISCHARGE

1. INTRODUCTION

1.1. BACKGROUND & OBJECTIVES

E3P have previously undertaken a Noise Impact Assessment for the residential development at Hill Top Farm in Earl Shilton (50-974-R1-2) which gained planning permission and is currently under construction. As part of the planning permission, a planning condition was applied which requires discharge:

The development shall commence in accordance with the scheme for protecting the proposed dwellings from noise from Leicester Road and the adjacent industrial/commercial operations submitted to and approved by the Local Planning Authority under application 23/00956/DISCON. Once the acoustic fence is installed a further noise assessment shall be carried out and if found to be require a further scheme for protecting the proposed dwellings from noise from Leicester Road shall be submitted to and approved in writing by the Local Planning Authority. All works which form part of the approved scheme shall be completed before any of the permitted dwellings are first occupied.

The NIA found that the following barriers would be required:

-  2.4 m high barrier along the northern and eastern elevation of Plot 001.
-  2.6 m high barrier along the northern, eastern and southern elevations of Plot 031 and 032.
-  2.6 m high barrier along the northern, eastern and southern elevations of Plot 033 and 037.

It is understood that the client/builder is to erect 2.6 m high barriers for all plots above.

E3P were commissioned to undertake noise measurements in the garden of plot 37 after the barrier has been erected.

As such, this note provides the results of the test and aims to provide evidence and commentary in order to satisfy the requirement of the planning condition.

This note has been completed by Lee Faulkner, Associate Director at E3P and full corporate member of the Institute of Acoustics.





2. NOISE SURVEY RESULTS

E3P attended site after the barrier at plot 37 was constructed. It was noted that the garden was not yet finished and consisted of exposed earth. However, the barrier was fully constructed and enclosed the garden.

Around the plot, construction activities were still ongoing but the site ensured this was kept to a minimum but some disruption was noted and, as such, attended measurements were required to ensure any construction works could be removed from the data so as to only capture road traffic sound.

Due to extraneous noise sources, an unattended 24-hour survey was not considered acceptable and, as such, E3P attended during a typical daytime period when road traffic is free flowing during a weekday period and in accordance with the shortened measurement procedure given in Calculation of Road Traffic Noise (CRTN).

The eastern barrier was noted to be 2.6 m high and of closed boarded construction. They were free from holes and sealed at the base, albeit a small gap was noted at the access point to the south but this was minimal.

2.1. ATTENDED AMBIENT SOUND SURVEY

E3P has conducted an attended Noise Survey to measure the level of noise generated by vehicles on Leicester Road. The survey was carried out over the following time periods in accordance with CRTN:

📅 11:15-14:15 Monday 20th April 2026.

The following noise measurement position was chosen for the Noise Survey:

📍 Noise Measurement Position 1 (NMP1): Located in the centre of the garden area of plot 37. The microphone was located at a height of 1.5 m above ground level and in free-field conditions. The sound climate was dominated by road traffic and occasional on-site construction activities.

A summary of the measured sound pressure levels from the Noise Survey are presented in Table 2.1. Construction noise is removed from the $L_{Aeq,T}$ levels.

Table 2.1 Attended Noise Levels

MEASUREMENT START TIME	MEASURED SOUND PRESSURE LEVEL (DB)	
	$L_{Aeq,T}$	$L_{A10,T}$
11:15	55.6	58.8
12:15	54.5	57.8
13:15	54.4	58.9

Weather conditions during the survey were conducive to the measurement of environmental noise throughout.

The equipment outlined in Table 2.2 was used for the noise survey.



Table 2.2 Noise Measurement Equipment and Calibration Dates

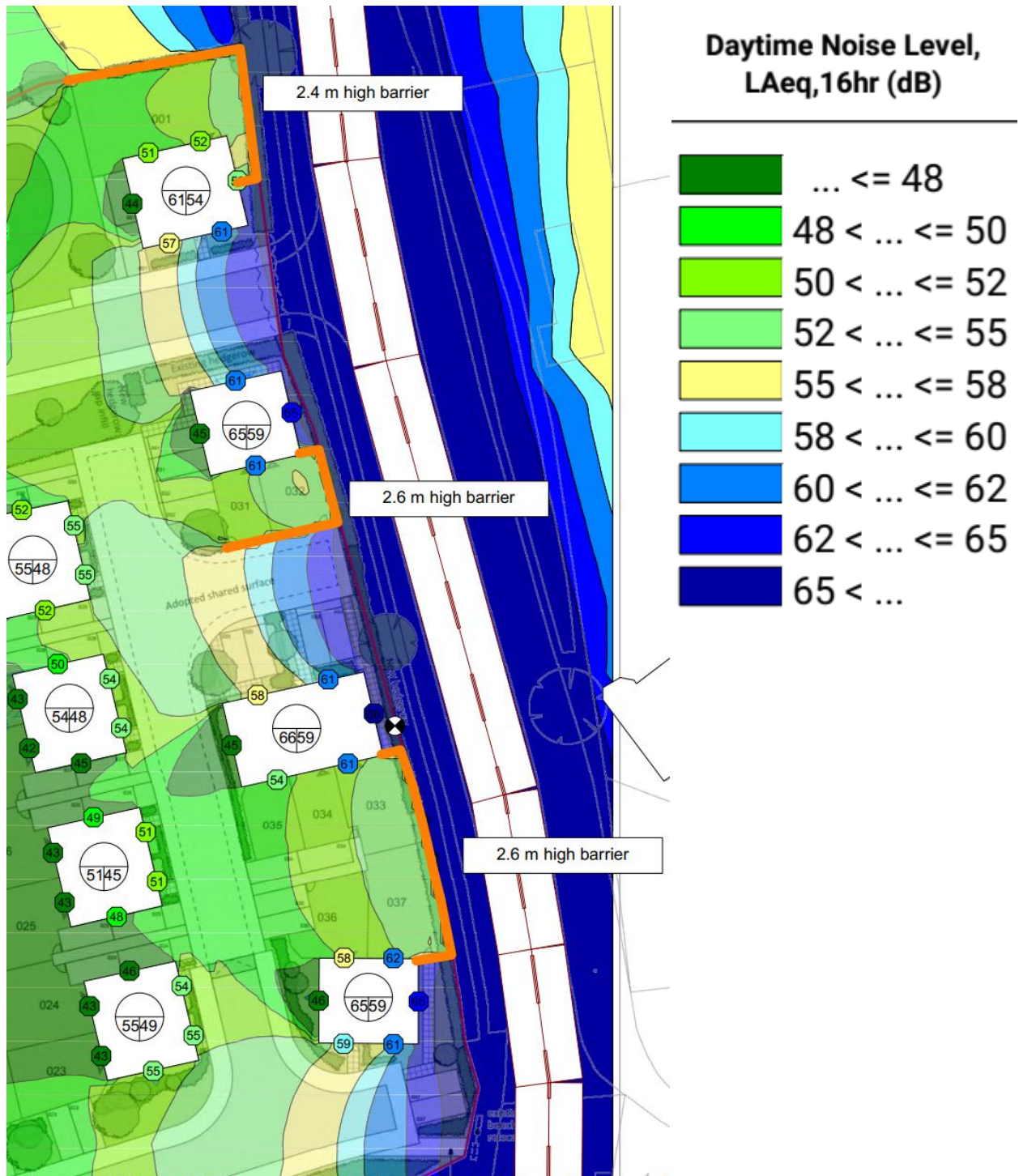
MEASUREMENT POSITION	EQUIPMENT DESCRIPTION	MANUFACTURER AND TYPE NUMBER	SERIAL NUMBER	CALIBRATION DUE DATE
NMP1	Sound Level Meter	Fusion	14226	17th December 2027
	Pre-amplifier	Pre22	2135072	
	Microphone	40CD	470570	
	Calibrator	CR 515	99204	13th August 2026

The sound level meter was field calibrated before and after measurements with no significant drift witnessed.



3. DISCUSSION AND ANALYSIS

In order to satisfy the planning condition, noise levels in the garden must be no more than that predicted in the NIA in accordance with BS 8233. E3P note the following from the NIA:





As noted above, predicted noise levels ranged between 52 and 55.4 dB for these plots. As such, measured noise levels must be within this range, allowing for +/- 1 dB uncertainty.

It is noted that the corrected $L_{Aeq,3hr}$ noise level is 56.4 dB. However, this level of noise still includes some aspect of construction noise that could not be removed at the time and so is considered worst-case.

In addition to this, E3P have also considered the measured $L_{A10,3hr}$ to derive a 16-hour noise level in accordance with CRTN and the TRL document. As the L_{A10} would effectively remove short duration construction activity, this is considered prudent.

Using this methodology, a 16 hour noise level of 55.5 dB is predicted.

Considering that levels of up to 55.4 dB were predicted with the fencing in place and the uncertainty for the measurement procedure and current surfaces within the garden, this is considered compliant with the planning condition.

Indeed, when the development is completed and residents move in, no construction activity would be taking place at the scale it currently is and noise levels are expected to be lower.

Accordingly, acceptable levels of noise are achieved in the garden areas with the 2.6 m high fences in place.

I trust the information provided in this letter report is satisfactory however if there is anything further please do not hesitate to contact me.

Yours sincerely,
For and on behalf of E3P Ltd

Lee Faulkner
Associate Director