

Technical Memorandum

Project : MFG Bradley
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TITLE : Response to EHO queries

INTRODUCTION

This Technical Memo provides additional details and context for review by the EHO after their initial comments on our noise impact assessment for the proposed new fitout on the forecourt of the MFG Bradley Service Station.

CONTEXT

The new fitout will see the existing commercial hand car wash that operates on part of the forecourt of the service station replaced with four new jet wash bays and new air and vacuum machine bays.

Our initial acoustic report, EC21993-1 dated 3rd June 2026, presented a noise impact assessment of the operation of the proposed new jet wash machinery and concluded it to be of low impact; the BS4142 rating level being at least 6dB below the background noise level at the nearest most affected receptor.

RESPONSE TO ADDITIONAL QUERIES

In the comments received, the EHO had correctly identified an error in the section 2.03 of our report where we had stated that 1-3 Quarry Road where the nearest receptors, whereas geographically 20-30 Quarry Road are the closest. The correct description in this section should have been 1-3 Quarry Road are the nearest, **most** affected receptor to the proposed new jet wash installation. As presented in Figure 3 & 4 of our report, due to the screening around the jet wash bays, the nearest windows of 20-30 Quarry Road are expected to experience noise levels 1dB less than those of 1-3 Quarry Road. Our assessment shows that the noise levels outside the windows of 1-3 Quarry Road are still expected to be of very low impact.

The EHO also noted that no noise impact assessment had been undertaken from the operation of the new air and water stations that are proposed to be installed. The following presents an assessment of the expected noise from the operation of the proposed new air and vacuum stations.

It is proposed to install the Istobal stations which have the following model types and published sound pressure levels.



Vacuum cleaner
Type Pump

Istobal model 4A.A0000
Istobal model 4VA1100

< 65.6dB(A) at 1m ref 2×10^{-5} Pa
< 70dB(A) at 1m ref 2×10^{-5} Pa

Using the same CadnaA model and the published noise data, the below Figures 1-3 present the noise levels calculated for the surrounding area based on the operation of the each station.

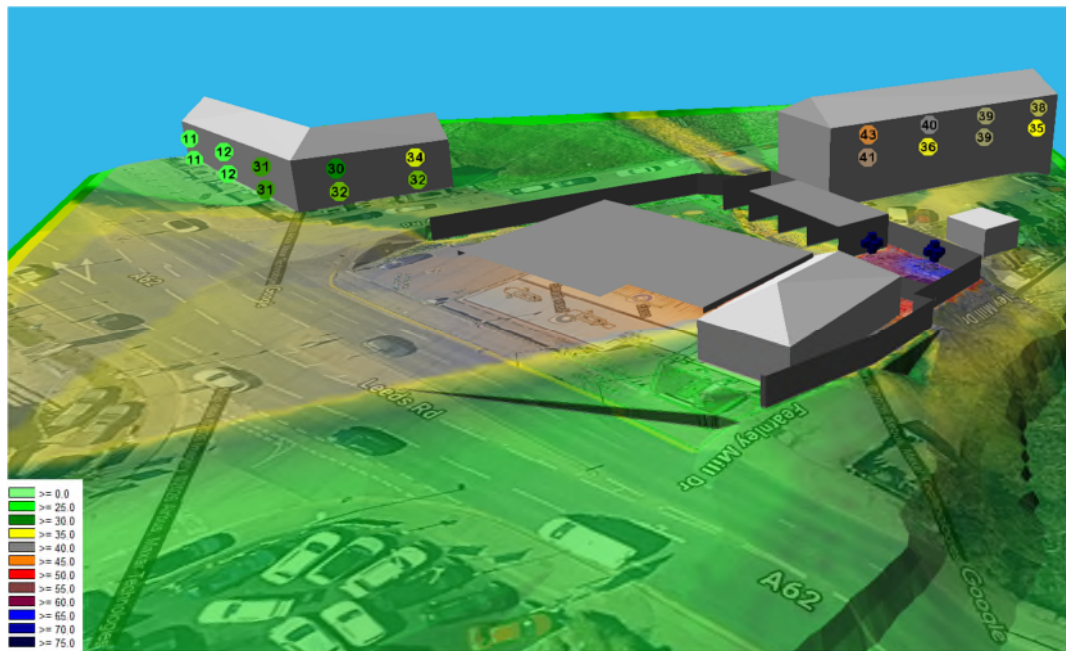


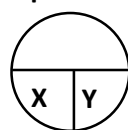
Figure 1: Noise from the operation of the air station



Figure 2: Noise from the operation of the Vacuum Station



Figure 3: Noise from operation of the air and vacuum station – heat map is for air station



X – Air Station
Y – Vacuum Station

The results of the noise modelling show that the most affected dwellings, which will be 20-30 Quarry Road, as summarised below:

Noise Source	Period	20-30 Quarry Road
Air Station	Any Time	43 dB(A)
Vacuum Station	Any Time	34 dB(A)

The following table is an extract of the summary of the noise data measured on site from the SLR Consulting report.

Table 4-2
Summary of Measured Sound Levels

Measurement Details				Residual sound level dB $L_{Aeq,15min}$		Background sound level dB $L_{A90,15min}$	
Date Range	Location	Period	Time HH:MM	Range	Typical*	Range	Typical*
Thu 09/03/2023 - Sun 12/03/2023	1	Day	07:00 – 19:00	58 – 74	62	47 – 62	52
		Evening	19:00 – 23:00	58 – 64	61	47 – 56	51
		Night	23:00 – 07:00	50 – 60	54	41 – 53	44
* Typical values of background sound level have been established from counts of data from Appendix 04. Typical residual sound levels have been equated at times of typical background sound.							

The table summarises that the typical background noise levels on site during the daytime and evening time are 51-52 dB(A). Noise from the operation of the air station will be at least 8dB below the typical background noise level. Noise from the operation of the vacuum station will be at least 17dB below the evening background noise level.

During the night time the typical background noise level is 44dB(A) and noise from the operation of the air station will be 1dB below this level and noise from the operation of the vacuum station 7dB below. Even the combined operation if both stations were to be in use simultaneously would be no more than the typical background noise level.

Based on noise from the operation either or both stations being no more than the typical background noise level the noise impact could be considered to be low.