

Technical Note

Project: Co-op Ash Bank Road, Werrington

To: Chris Edge, The Co-operative

Subject: Car park noise assessment

From: Shun Peng Ng

Date: 1st May 2026

cc:

Ref: 90229/TN

Dear Chris,

Introduction

We have submitted a noise impact assessment (dated 10th March 2026) to assess plant, delivery and car park noise. We understand that Environmental Health has noted the following on car park noise:

"There is no consideration given to the garden areas of the residential properties. Noise can be caused by customer car parks through loud radios, exhausts, customer noise and idling engines. There will be limited potential for control by the on-site management and staff to reduce this type of noise, so it is important it is assessed and addressed during the design and planning phase."

This note presents the calculations of car park noise levels to the nearest garden area, assessments against recognised standards and predicted noise impact.

Criteria and specifications

For desirable noise levels for external garden areas, guidance is sought from BS 8233:2014:

BS 8233:2014 Guidance on sound insulation and noise reduction for buildings

Section 7.7.3.2 'Design criteria for external noise' of BS 8233, states the following:

"For traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external noise level does not exceed 50 dB LAeq,T, with an upper guideline value of 55 dB LAeq,T which would be acceptable in noisier environments. However, it is also recognized that these guideline values are not achievable in all circumstances where development might be desirable. In higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces, but should not be prohibited."

Calculations are made to the nearest garden boundary as indicated below:



We note that this position is approximately 15m away from the building window. In the busiest 1-hour period, it is predicted that there will be a total of 36 separate sets of car movements to the store. Additionally, it is assumed that during the peak hour a further 20 customers arrive on foot. The predicted LAeq,1hr is given in the table below.

Table 1 Worst-case car park noise levels

Receptor	LAeq,1hr	
	External Noise Level, dB	Internal Noise Level (open window), dB
Window	37	22
Garden	44	-

Discussion

Using the method described above, the predicted car park noise level at the garden, during the noisiest hour, is well within the desirable noise levels set out in BS 8233:2014. This is a robust assessment as during less busy periods, the noise level will be lower than the predicted levels above. Any acoustic screening from the garden fences is excluded from the assessment for robustness.

We also note that from the environmental noise survey, the minimum LAeq,1hr is 47dB, 3dB higher than the predicted car park noise levels. As such, even during the noisiest hour, noise resulting from car park use is predicted to not exceed the existing noise levels from road traffic. This is a robust assessment as the survey position (Salters Close) is further from the main road traffic than the most-affected receptor, and road traffic noise levels are likely higher for the above receptor.

It is noted that the assessment is limited to typical vehicular activity. Unsociably loud exhausts or radios would and should be dealt with by existing legislation and are not a problem inherent to premises which attract customers arriving by car.

Summary

When assessed at the nearest garden boundary, noise levels arising for typical car park use and customer movements are well within the desirable noise levels given in BS 8233:2014. The predicted noise levels are also lower than the existing noise levels from road traffic. Unsociably loud exhausts or radios would and should be dealt with by existing legislation and are not a problem inherent to premises which attract customers arriving by car.

We trust the above provides sufficient additional information. Please contact us with any questions.

Kind regards,

Shun Peng Ng

For and on behalf of Noise Solutions Ltd