### Key Issues:

Wardell Armstrong (WA) undertook an Environmental Impact Assessment (EIA) in support of an outline application. As is best practice for this type of application, the EIA was based on the parameters of the scheme, including access, development plots and maximum floorspace.

As part of the EIA, a noise assessment was undertaken, which considered both the construction and operational phases of the development, including consideration of development related traffic noise. As the end users of the scheme were unknown at the time of submission, there was insufficient detail to accurately estimate the level of noise likely to be generated by the operation of the commercial premises within the scheme. The assessment therefore identified appropriate noise limits for the operation of the scheme and stated that mitigation measures would be incorporated at the detailed design stage, to ensure the noise impacts associated with the scheme would be reduced to acceptable levels at sensitive receptors.

However, the client wished for a detailed noise assessment to be undertaken in order to demonstrate to the planning authority and local residents that the site could operate within the stated noise limits.

### Purpose of the project:

An outline planning application was submitted for a logistics hub, comprising four warehouse/distribution units and a training centre.

The application site is located on the south-western edge of Leicester.

### Description of the project:

The application site currently comprises agricultural fields and is bound to the west by the M1. Junction 21 of the M1 and M69 is located approximately 1.6km north of the Site. The site is also bound by highways to the north and east, and a park and ride site is adjacent to the north-east of the site, with predominantly commercial development beyond. Road traffic was the primary source of existing noise at the site.

Key sensitive receptors to noise effects comprised residential properties to the east and south-east of the site. The proposals for the scheme included a 4m high bund along the southern boundary of the site, in order to mitigate potential noise (and visual) effects on the closest potential noise points.
# EIA Learning Outcomes

**Lessons learnt:**

In order to address the issue, WA suggested that an example noise modelling exercise be undertaken, by formulating assumptions about how the scheme would operate, and agreeing these with the client and local authority. The assessment was based on relevant guidance, including BS4142:2014 Methods for rating and assessing industrial and commercial sound.

These assumptions were made based on typical working of warehouse/distribution hubs in order to generate noise predictions using noise modelling software (SoundPLAN).

The assumptions included the traffic distribution within the site; movements at loading bays; speed restrictions; reduced usage at night time; locations of external fans; and no external announcement systems or telephone bells within the site.

Consultation was undertaken with the Environmental Health Office at the local planning authority, in order to confirm that the assumptions to be used within the noise model were acceptable, and that the proposed noise levels were acceptable.

**Lessons learnt continued:**

To ensure that the modelling exercise was robust, a worst-case baseline was used. The noise impacts were assessed against the quietest day time and night time noise levels measured at each monitoring location during the noise survey.

A comparison of the existing and predicted noise levels during day time and night time was undertaken. The assessment found that the noise levels would be acceptable.

It was therefore concluded that the scheme is likely to cause a low impact in accordance with BS4142, during both the daytime and night time periods, and it is therefore considered that no additional mitigation would be required.

This exercise enabled a robust assessment of the potential noise impacts of the scheme to be undertaken, prior to the details of the scheme being confirmed. The exercise also provided reassurance to the applicant and local authority that the scheme was capable of operating within the stated noise levels, and that the proposed mitigation would be sufficient.

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