



# Noise from Food Store

Aldi Stores instructed The Airshed to conduct an environmental noise impact assessment for a new retail store in North Lanarkshire. The proposed store was overlooked by recently constructed four storey flats with other noise sensitive uses nearby. The main sources of concern were noise from the service yard and refrigeration units.

Operational noise from the proposed store was assessed in accordance with BS 4142: 1997 Method of Rating Industrial Noise Affecting Mixed Residential and Industrial Areas, World Health Organisation criteria, and noise standards proposed by the local Council's Environmental Health Officials.

The dominant noise from the seven day baseline survey was from adjacent road traffic. The typical daytime background was 53 dB LA<sub>90</sub> between 07:00 and 19:00. This background reduced slightly to 47 dB LA<sub>90</sub> between 19:00 and 23:00. The typical night-time background was 43 dB LA<sub>90</sub> between 23:00 and 07:00.

A computer model was used to predict noise around the development site. The modelling technique was based on the procedure set out in ISO 9613-2. Noise sources from the proposed development were based on measurements conducted at similar Aldi stores and included the off-loading and refrigeration plant noise. Three Scenarios were modelled to assess potential impacts and to help design appropriate mitigation measures. This included the erection of an acoustic barrier and a procurement specification for the refrigeration plant, to protect the amenity of local residential receptors. The study also examined options for the relocation of the service yard to reduce impacts on the nearest dwellings.

With the mitigation measures proposed, noise from the store would be of marginal significance in terms of BS 4142:1997 and insignificant in terms of WHO sleep disturbance criteria and NR25. The report was submitted to and accepted by the Council.

