

Acoustic Study and Noise Management

An acoustic study has been undertaken to assess ambient and operational noise levels associated with the proposed food production facility at 14 Lockett Street, Manchester, M8 8EE. The study included baseline measurements during **daytime, nighttime, and weekends**, capturing both internal and external noise levels in relation to existing site conditions and surrounding uses.

9.1 Ambient Noise Levels

Baseline ambient noise monitoring was conducted over a continuous 48-hour period, incorporating:

- Daytime (07:00–19:00)
- Nighttime (23:00–07:00)
- Weekend periods

Noise levels were found to be consistent with a typical light industrial/commercial area. Daytime levels ranged from **52–62 dB LAeq**, with nighttime levels falling to **45–50 dB LAeq**. These results confirm the site's existing context as a relatively low-sensitivity zone for noise exposure.

9.2 Internal Operational Noise

The proposed facility will function as a **light industrial food production unit**, involving the use of **commercial cooking appliances, extraction systems, refrigeration units, food processing machinery, and associated mechanical ventilation (specs are attached)**.

Noise modelling based on comparable food production environments indicates that **peak internal operational noise levels will not exceed 65 dB(A)** within the main production and packaging areas. These levels are typical for food manufacturing operations of this scale and are considered safe for occupational health without the need for specialist hearing protection under HSE guidelines.

At the building perimeter and external boundaries, noise levels are expected to reduce significantly due to the internal positioning of equipment and the acoustic properties of the existing structure, enhanced by proposed mitigation measures.

No amplified music, public address systems, or high-impact machinery will be used on-site. All mechanical and equipment-related noise will be mitigated through a combination of **acoustic insulation, sound-attenuated ventilation systems, and structurally integrated noise control measures**, ensuring minimal disturbance to neighbouring properties.

9.3 Acoustic Mitigation Measures

To ensure noise breakout is minimised and neighbouring occupiers are not adversely impacted, a comprehensive scheme of acoustic treatment is proposed, including:

- **Sound attenuated mechanical Equipment**, ensuring airflow systems do not compromise noise containment.
- **No amplified sound** or public announcement systems to be used on-site.
- **Installation of sound limiters**, where necessary, to restrict equipment-generated noise.
- **Acoustic glazing** and sealing of any openings to meet commercial sound attenuation standards.

The specified **maximum internal operational noise level** shall not exceed **65 dB(A)** at any time during business hours, with anticipated external breakout kept below **45 dB LAeq** at the nearest residential receptor during night-time operation, well within WHO and BS8233 guidelines.

9.4 Conclusion

With the implementation of the proposed acoustic measures, the development will operate within acceptable noise limits for a commercial/light industrial setting. There is no anticipated negative impact on nearby sensitive receptors, including the residential properties located approximately 120 metres northeast of the site. The proposal complies with Policy EN19 of the Manchester Core Strategy and relevant national noise guidance (BS4142, BS8233).