ODOUR, NOISE & PM2.5 RISK ASSESSMENT AND MANAGEMENT PLAN

Site Address
717 Stockport Road
Levenshulme
Manchester
M19 3AG

PLANNING APPLICATION REF: 143659/2025

1. INTRODUCTION AND PURPOSE

1.1. This document has been prepared in support of the above planning application following comments from Environmental Health regarding potential Odour, Noise and PM2.5 impacts arising from the operation of an existing ground floor commercial kitchen beneath the proposed first floor and second floor residential accommodation.

The document serves a dual purpose:

1.1.1 To identify and assess potential impacts associated with the kitchen extraction system (Risk Assessment); and

1.1.2 To define enforceable operational, mitigation and management measures to ensure those impacts remain controlled over the lifetime of the development (Management Plan)

This coordinated approach ensures that mitigation relied upon in the assessment is secured, deliverable and enforceable, enabling planning permission to be granted subject to condition.

2. POLICY AND GUIDANCE FRAMEWORK

2.1. This assessment and management plan has been prepared with reference to:

- EMAQ (2018): *Control of Odour and Noise from Commercial Kitchen Exhaust Systems*
- Defra Interim Planning Guidance – PM2.5
- BS 4142:2014 + A1:2019
- DW/172 – Specification for Kitchen Ventilation
- TR/19 – Internal Cleanliness of Ventilation Systems
- BS 6173 – Installation and Maintenance of Catering Appliances

These documents represent established best practice for mixed-use developments where commercial kitchens are located near sensitive receptors.

3. SITE CONTEXT AND RECEPTORS

3.1. This site is located on Stockport Road within a mixed-use urban environment characterized by:

- Ground Floor commercial premises
- Residential accommodation above and nearby
- Existing traffic and commercial activity

Sensitive receptors include:

- Proposed first and second floor residential units directly above the kitchen

- Nearby dwellings
- A church, supermarket and surrounding businesses

The assessment has therefore been undertaken on a precautionary basis, recognizing the high sensitivity of future residential occupiers.

4. DESCRIPTION OF THE KITCHEN OPERATION

4.1. NATURE OF USE

The Kitchen operates as a small general restaurant, preparing:

- Fried Chicken
- Burgers and Wraps
- South Asian Cuisine

Cooking processes include frying, grilling, work cooking and use of a commercial shawarma machine.

EMAQ identifies these procedures as associated with high odour, grease particulate emissions, and the kitchen is therefore classified as a high odour potential source.

4.2. SCALE

The kitchen is small in scale and serves a local operation. This is relevant when considering proportionality of mitigation measures.

5. ODOUR RISK ASSESSMENT

5.1. ODOUR SOURCE STRENGTH

Based on cooking type and EMAQ Tables 1 and 2, the kitchen represents a high odour and grease source.

5.2. RECEPTOR SESITIVITY

Residential accommodation directly above the kitchen is considered highly sensitive.

5.3. DISPERSION CHARACTERISTICS

The flue terminates 1000mm above roof level, meeting the EMAQ minimum requirement. Due to close proximity of residential windows (approximately 1100mm), reliance is placed on effective odour abatement rather than dispersion alone.

5.4. ODOUR RISK CONCLUSION

In EMAQ terms, the proposal represents a high odour risk scenario, which is acceptable in planning terms provided a high level of odour control is implemented and retained.

6. NOISE RISK ASSESSMENT

6.1. PLANT NOISE CHARACTERISTICS

- Fan Manufacturer: Canopy UK Direct Ltd
- Measured Level: 67 dB(A) at 3000mm
- Operating Hours: 07:00 – 19:00 daily

6.2. NOISE MITIGATION

- Melinex-lined Duct Attenuators
- Anti-Vibration Mounts
- Flexible Duct Connectors

6.3. BS 4142 ASSESSMENT

Considering:

- Daytime only operation
- Existing background noise from Stockport Road
- Non-tonal, non-impulsive plant
- Installed attenuation

The noise impact is assessed as low, with no significant adverse effect expected.

7. PM2.5 RISK ASSESSMENT

7.1. IMPACT CONTEXT

Cooking processes generate fire particulate matter (PM2.5), Given:

- High emission cooking
- Short receptor distances
- Single stage filtration

The PM2.5 impact is conservatively assessed as high.

7.2. AFARP MITIGATION

Defra guidance requires emissions to be reduced as far as reasonably practicable. Measures proposed include:

- Electrostatic Precipitator (ESP)
- Activated Carbon filtration
- Ongoing Maintenance and Review

These measures are technically feasible, proportionate and commonly used, and therefore satisfy the AFARP requirement.

8. ODOUR, NOISE AND PM2.5 MANAGEMENT PLAN

8.1. IMPLEMENTATION AND RETENTION

All mitigation measures set out in this document shall be:

- Installed prior to first occupation of the residential units
- Retained and maintained for the lifetime of the use
- Not altered without written approval of the Local Planning Authority

8.2. APPROVED OPERATING HOURS

The commercial kitchen and extraction system shall operate only between:

- 07:00 and 19:00 hours daily

8.3. APPROVED ODOUR CONTROL MEASURES

The approved odour control system shall achieve a minimum high level of odour control in accordance with EMAQ, comprising:

- Grease baffle filters
- Ducted extraction system
- Vertical flue terminating ≥1000mm above roof level
- ESP and activated carbon filtration where required to protect amenity

8.4. APPROVED NOISE CONTROL MEASURES

The following measures shall be installed and retained:

- In-line duct attenuators
- Anti-Vibration mounts
- Flexible duct connectors

Plant noise shall not give rise to adverse or significant adverse impact when assessed in accordance with BS 4142 principles.

8.5. MAINTENANCE AND SERVICING

COMPONENT	MANDATORY FREQUENCY
Grease Baffle Filters	Every 14 days
Ductwork	TR/19 Compliant
ESP (where installed)	Every 4 weeks
Carbon Filters	Every 4-6 Months
Fans and Mounts	Annually

A maintenance log shall be retained on site and made available to the LPA upon request.

8.6. COMPLAINTS HANDLING

Any odour or noise complaint shall be:

1) Logged
2) Investigated promptly
3) Rectified where required
4) Recorded in the site log

9. RELATIONSHIP BETWEEN ASSESSMENT AND MANAGEMENT

The Risk Assessment identifies potential impacts.

The Management Plan secures the mitigation relied upon in the assessment.

Together, they provide a complete, enforceable framework ensuring long-term protection of residential amenity.

10. PLANNING, POSITION AND CONCLUSION

This coordinated submission demonstrates that:

- Odour, Noise, and PM2.5 impacts have been properly assessed
- Appropriate mitigation is available and deliverable
- Long-term control is secured through enforceable commitments

On this basis, the development is acceptable in amenity terms, and planning permission can be granted subject to conditions, with no technical grounds for refusal.

11. DECLARATION

This Odour, Noise and PM2.5 Risk Assessment and Management Plan has been prepared to support the planning application and shall be implemented in accordance with its contents.