

Jimmy's Restaurant Manchester
Kitchen Extract Proposal
Kitchen Extract Planning Application Supporting Information

1. Location of proposed development:
Jimmy's Restaurant, 27 Blossom Street, Manchester, M4 6AJ
2. Description of proposed development:
Installation of new commercial kitchen ventilation system with plant on roof and smoke / odour treatment.
3. Date of Preparation:
21/01/2020
4. Date of any amendments:
5. Applicant:
Mr Richard Craig (Jimmy's)
6. Design Consultant:
Sam Wogens, Jigsaw Solutions Limited, 53 Bluebell Road, Kingsnorth, Ashford TN23 3GJ. E: sam@jigsawmees.co.uk

7. Planning Permission Supporting Information:

The information below has been prepared in accordance with the document titled "Control of Odour and Noise from Commercial Kitchen Exhaust Systems" published by EMAQ+, which is the replacement for the recently withdrawn DEFRA guidance.

Information on Premises:-

Average No. meals served per day : 60

Method of preparation and cooking: Grilling, light frying and cold prep

Types of meal served: Mixed menu, steak, fish, roast dinners, salads.

Proposed Hours of Operation (Kitchen Ventilation Plant): 12pm to 9pm (TBC)

Risk Assessment Score: 38 (See later section for detail)

Plans and Drawings:-

Refer to Jigsaw Solutions Ltd. Drawing 2192/M101 and 2192/M102 for proposed layout and elevations of the kitchen extract and supply systems.

System description:-

The kitchen extract system, externally will consist of the following items of plant:-

- 1) 2 No. Electrostatic filters (Arranged in a double pass formation)
- 2) 2 No. Bank of carbon filters (With a 0.53 Second dwell time)
- 3) 1 No. Kitchen Extract Fan
- 4) 1 No. Kitchen Extract discharge silencer

The items of plant will be located as shown on the issued drawings. The plant sits on the roof of the building mounted on load spreading feet.

Refer to Purified Air specification for full details of the filtration to be installed. The system as designed incorporates ESP filtration to treat smoke particles and carbon filtration to treat odour.

The ESP filters and the Carbon filters consist of no moving parts, therefore the only sources of potential vibration and structure borne sound is the kitchen ventilation fans (2 No.).

The following measures will be employed to ensure that the structure borne sound and vibration is minimised to a negligible level:-

- 1) The kitchen extract and supply fans shall be connected to the system of ductwork using flexible ductwork connections. This will ensure that any vibration from the fan cannot be transmitted to the rest of the system.
- 2) The kitchen extract and supply fans shall be mounted on anti-vibration acoustic matting. The matting will isolate the fan from the plant platform to ensure vibration is not transmitted through the base of the fan.
- 3) A discharge silencer, sized in accordance with the acoustic report recommendation will be installed on the extract system, along with any further recommendation of the acoustic report (if required).
- 4) An inlet and a discharge silencer, sized in accordance with the acoustic report recommendation will be installed on the supply system, along with any further recommendation of the acoustic report (if required).

With the fans acoustically isolated from the rest of the system the risk of structure borne sound and vibration being transmitted is minimised.

The anti-vibration acoustic matting is installed where the fan body rests on the plant deck. The matting will be as manufactured by TICO, reference S/PA.

Refer to manufacturers documentation for full detail of the TICO anti-vibration padding.

Risk Assessment Score:-

Dispersion – Poor (15) – The discharge will be roof level but neighbouring buildings are higher.

Proximity of Receptors – Close (10) – The site has residential behind and opposite

Size of Kitchen – Medium (3)

Cooking Type – Very High (10)

Total = 38 – Very High Level Odour Control

Maintenance:-

The system is to be maintained in accordance with manufacturer instructions. The maintenance engineers will attend the site 4 times per year and service the ESP's and replace the carbon filtration as required to keep it fully operational.

System Operation:-

The kitchen ventilation systems are to provide an extract airflow duty of $1.5\text{m}^3/\text{s}$, and a supply airflow of $1.28\text{m}^3/\text{s}$. The proposed carbon filtration will give a dwell time of 0.53 seconds.

The kitchen extract fan is to be as manufactured by Helios UK, model GBD560/4/4 T120. This fan has been chosen for its low noise levels, ease of maintenance and airflow characteristics.

The kitchen supply fan is to be as manufactured by Helios UK, model GBD500/4/4. This fan has been chosen for its low noise levels, ease of maintenance and airflow characteristics.

Data sheets has been appended to this document.

Further Documentation:-

The following documents are issued in support of the above:-

- 1) Drawings M101 and M102
- 2) ESP / Carbon Manufacturers Report / Specification
- 3) Kitchen Ventilation Fans data sheet

