OWEN STREET- 111719/FO/2016/C1

Retail 3a Rev 001

Planning- Condition 20

Fumes, vapours and odours shall be extracted and discharged from the premises in accordance with a scheme to be submitted to and approved in writing by the City Council as local planning authority before the use commences; any works approved shall be implemented before the use commences.

This statement has been produced to detail the supply and extract ventilation strategy for the proposed fit out.

The ventilation design shall comply with the following building regulation approved documents and standards:

Design Standards

The ventilation systems will be designed in accordance with recognised UK and industry best practice.

Design will be based on standards and guidelines, including:

- British and European Standards (BSI).
- Chartered Institution of Building Services Engineers (CIBSE).
- Building Services Research and Information Association (BSRIA).
- Building Research Establishment (BRE).
- Heating & Ventilating Contractors Association (HVCA).
- Guidance on the Control of Odour and Noise from Kitchen Exhaust Systems (DEFRA)

Statutory Requirements

Ventilation systems design will also be based on the following Statutory Requirements:

- The Building Regulations.
- Clean Air Act 1993.
- The Control of Pollution Act 1974 and Amendment Acts.
- The Construction (Design and Management) Regulations 2015.
- British Standards and Codes of Practice.
- Manchester City Council Planning Conditions & Requirements.

System Descriptions

All equipment shall be installed so as not to create any nuisance by way of noise, vibration, heat or fumes to neighbouring tenants, residential apartments or the public including recirculation.

Kitchen extract Ventilation

The kitchen ventilation has been designed in accordance with DEFRA guidelines and the HVCA DW172 specification, and the extract ventilation rate has been calculated using the thermal calculation of the kW ratings of the cookline.

The kitchen canopy would be manufactured form 20swg 304 grade stainless steel, a continuous perimeter condense drip channel, standard baffle type grease filters and LED lighting.

The extract ductwork would be manufactured and installed in accordance with DW172 for commercial kitchens, and fire rated for 60 minutes, by the application of FM60.

The ductwork would pass through the floor slab to the basement plant area, where the high temperature rated fan (with motor out of airstream) complete with fore and aft silencers, before exhausting the air into the underground car park area.

The fan would have a speed controller, wall mounted in the kitchen.

The system would benefit from full odour control, starting with a UVO-1000 module at the canopy, double pass ESP modules and a carbon filter module, which together will remove ALL grease, smoke and odours form the extracted cooking fume.

All odour control equipment would be manufactured by Purified Air Ltd.

Toilet extract system

The toilet extract system has been designed to provide 12 – 15 air changes per hour to the toilet area, and would comprise 1 x basement mounted extract fan, with fore and aft silencers, and an exhaust duct into the underground car park.

The duct rising to the ground floor would have a fire damper in the floor slab, and a range of galvanised sheets steel ductwork, over the toilet cubicles, with an extract air valve to each cubicle.

The fan would have an adjustable run-on timer and would be controlled by movement sensors in the toilet foyer.

Heat Recovery Fresh Air Ventilation

The fresh air ventilation has been designed to provide the legal minimum of 10 litres/sec/person of 100% fresh, filtered and tempered air, via 2 HRV units, one mounted on top of each doorway porch arrangement.

The fresh air and exhaust air would be via the perforated grilles in the ceiling of the porch.

Air would be extracted from the venue form a louvre above each entrance door, and the fresh air would be directed to both the AC unit and into the main duct riser, for distribution throughout the venue, via the circular swirl diffusers.

Each HRV unit would be individually controlled, from a wall mounted remote control unit.