

EXTRACTOR FLUE STATEMENT:

Proposed extractor flue required for Change of Use from offices to café with ancillary takeaway facilities

Proposed site:

62 Kings Road, Reading, RG1 3AA

Applicant:

Penthouse Corporation Limited

Date:

2nd February 2018

Specification of proposed system

Proposal is considered a light commercial use, requiring air canopy extractor to be operated when cooker in use and air intake located on rear side wall for intake fresh air (potential gas hob), interlinked with cookers to ensure constant fresh air intake when cookers are in use.

Consultation has been carried out with extraction suppliers to provide the proposed specification for the extraction system. The consultations raised that generally cafés do not have a high odour or high grease or oil type of cooking, therefore require low level extraction to suit the level of cooking facility. The consultees commented that café style cooking is more intensive than domestic cooking, but no worse in terms of level of odour or grease.

Proposals:

1 metre fine grain satin finish 304 stainless steel ceiling canopy 1000mm wide complete with stainless steel baffle filters and a fully welded drain channel and tap for easy cleaning.

Galvanised steel ductwork will extend from the top of the extraction canopy, extending towards the rear of the property, with 2 x 45 degree bends to extract out of the single storey element, the ductwork will extend through the flat roof and fitted with preformed extraction flue with weather shield cap.

Fan unit to be a low noise level fully enclosed extraction fan unit fitted into the ductwork within the kitchen to the south of the extraction canopy at ceiling height. Size of ductwork to suit final fan. Anti-vibration mounting and flexible duct connectors are to be fitted to the fan unit to minimise noise transmission. A fan speed controller will be fitted to provide user adjustment of the fan speed to suit prevailing cooking conditions and to reduce any harmonics. The design noise level for this type of fan unit is approximately 48dB (A) @ 4m. The approximate design air flow rate for this type of system is 0.5m/s.

All ducting supports to be mounted on residual rubber anti vibration mountings to stop any reverberation noise travelling through the walls and ceilings, with access points fitted for maintenance and cleaning. Canopy drainage to be drained and cleaned regularly.

Fresh air supply to be provided, approximately 80% of extracted air to be replaced by mechanical air supply fan located on rear side wall for inlet.

Propose use of air intake fan to be located on rear side wall between the 2 windows to assist with cross ventilation throughout kitchen space. I.e. use of single inlet backward curved Jetflow HIT centrifugal in-line fan with insect screen with airflow rates up to 0.51 m³/s, considered suitable for light commercial use with speed switch, or Multiflow SEM AC Model inline fan with air volume flow rates up to 0.918 m³/s, or equivalent subject to installer and manufacturer used.

Stainless steel wall cladding should be provided on walls adjacent to the cooking hobs.

All systems to comply with DW172 regulations and specifications with regards to ducting sizes, heights and fan duties etc.

The fan and ducting have been situated to maximise the full extraction potential. It is important that the following procedures are carried out as stipulated.

General guidelines to cleaning and maintaining an extraction system:

The canopy must be externally cleaned on a weekly basis. All grease filters in the canopy must be cleaned at least three times a week using hot soapy water, to avoid grease carry over.

The canopy and full extraction system must be professional deep cleaned no later than twelve months after installation and certification. Failure to adhere to these guidelines will prevent the system working to its full potential, and odours may arise due to grease residue inside the ducting giving a carry over.

Summary Cleaning Information:

Canopy: wash down weekly with hot soapy water, ensure all fat channels are clear and clean.

Grease filters: clean at least three times a week using hot soapy water, water must be hot enough that rubber gloves are worn. Ensure oil and fat outlets are clear and clean. Replace filters with the drainage slots at the bottom facing down.

Conclusion:

Due to the times of opening and style of cooking of cafés this type of extraction system and fan is considered suitable for purpose, as cafés are normally open during standard working hours and therefore will not impact on the occupation of residential units in the surrounding area. The extraction system removes the water moist air from the kitchen with grease filters in the canopy to trap residue, and a separate fan replaces the kitchen with fresh air, reducing drawing air from the main seating area.

The existing air conditioning and heating unit in the centre of the seating area with external condenser controls the air quality and temperature for the main seating area.