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NORFOLK PLANNING & PROPERTY CONSULTANTS LTD

REPLACEMENT COMMERCIAL FLUE
APPLICATION FOR:
Zia Lucia
238 West End Lane
NW6 1LG

Commercial Kitchens: Control of Odour
and Noise from Commercial Kitchens
Exhaust Systems by Exoflue Ltd

Overview

The proposed installation at 238 West End Lane is for a gas fired pizza oven (DEFRA registration provided). No other cooking operation will be taking place other than the preparation of pizzas. Therefore, the only flue and extraction system will be that serving the pizza oven.

Company Background

Exoflue have been specialising in providing extraction solutions for commercial wood and gas fired pizza ovens for 10 years. We work for individual's, multi nationals and well-known high street chains.

We have a strong relationship with Purified Air (the UK's number one experts in Commercial Kitchen Filtration) and BSRIA (the UK's leading HVAC Product Testing and Technical research centre).

Control of Odour

Filtration

Grease – There is zero grease from a pizza oven as there is no cooking of fatty meats. Due to the temperature and speed of how the pizza is cooked, 400 C / 60-90 seconds respectively, any sliced fatty meats do not omit grease into the system.

Odours – With the high operating temperature of the oven there are no food odours that get into the system, except, on occasion, and depending on how much is used on the base, a slight smell of burning semolo (which is a re-milled semolina used to stop the pizzas sticking to the oven base).

The oven has been DEFRA approved for use within smoke free zones.

Control of Noise

The flue system contains an internal fan (shown on proposed floor plan).

The fan system is the 'Pizzafan' which has been in use since 2019.

The fan is designed for internal and external use a full specification PDF is attached with this report.

Typically, the fan will operate on position 2 or 3 and at a decibel level of 10 to 15.

The external flue detail has already been provided via a PDF. Sound suppressing fixings will be used to reduce any vibration. Internally sound suppressing fixings will also be used.

Risk Assessment for Odour

Odour control must be designed to prevent odour nuisance in a given situation. The following score methodology is suggested as a means of determining odour control requirements using a simple risk assessment approach. The odour control requirements considered here are consistent with the performance requirements listed in this report.

Impact Risk	Odour Control Requirement	Significance Score*
Low to Medium	Low level odour control	Less than 20
High	High level odour control	20 to 35
Very high	Very high level odour control	more than 35

* based on the sum of contributions from dispersion, proximity of receptors, size of kitchen and cooking type:

Criteria	Score	Score	Details
Dispersion	Very poor	20	Low level discharge, discharge into courtyard or restriction on stack.
	Poor	15	Not low level but below eaves, or discharge at below 10 m/s.
	Moderate	10	Discharging 1m above eaves at 10 -15 m/s.
	Good	5	Discharging 1m above ridge at 15 m/s.
Proximity of receptors	Close	10	Closest sensitive receptor less than 20m from kitchen discharge.
	Medium	5	Closest sensitive receptor between 20 and 100m from kitchen discharge.
	Far	1	Closest sensitive receptor more than 100m from kitchen discharge ¹ .
Size of kitchen	Large	5	More than 100 covers or large sized take away.
	Medium	3	Between 30 and 100 covers or medium sized take away.
	Small	1	Less than 30 covers or small take away ¹ .
Cooking type (odour and grease loading)	Very high	10	Pub (high level of fried food), fried chicken, burgers or fish & chips. <i>Turkish, Middle Eastern or any premises cooking with solid fuel</i>
	High	7	Vietnamese, Thai, Indian, <i>Japanese, Chinese, steakhouse</i>
	Medium	4	<i>Cantonese, Italian, French, Pizza (gas fired),</i>
	Low	1	<i>Most pubs (no fried food, mainly reheating and sandwiches etc), Tea rooms¹</i>

Source: Control of Odour and Noise from Commercial Kitchen Exhaust Systems, EMAQ 2018

The total score for 238 West End Lane is **19** therefore deemed at low/medium level level for odour control. Given the quick cooking time of this style of oven (180 seconds) and lack of grease loading the odour from cooking type is nearer to low than medium, as previously stated there are no fried food operations taking place.

