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BULLGOGI, UNIT 6A, PICCADILLY PLAZA, MANCHESTER
M14AH



Fume Extraction Statement

AUGUST 2024



Unit 11, Teddington Business Park, Station Road, Teddington, TW11 9BQ



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Quality Management

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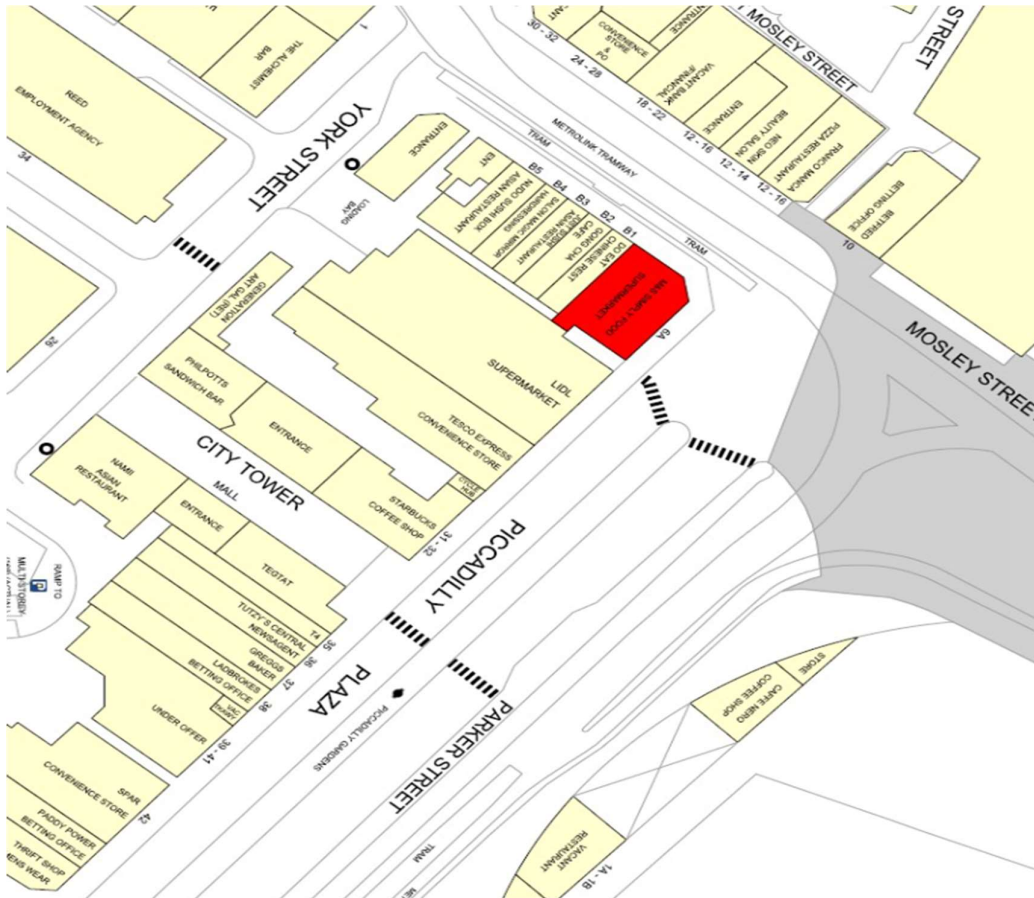
1. Introduction

Application number: 140793/FO/2024

The Fume Extraction Statement has been prepared to support the planning application submitted by JAIA Architects for alterations to the shop front and the installation of louvers and plant equipment on the basement, ground and Second floor (plant room) of Unit 6A, Piccadilly Plaza, Manchester, where the restaurant Bullgogi will be located.

The restaurant will be centrally situated in Manchester within the Piccadilly Plaza complex on York Street. The development is intended to be a restaurant, with a basement, ground floor and plant room. The basement will house the kitchen, offices, and staff rooms, while the first floor will serve as the dining area.

The Kitchen will be preparing hot food. The Methods of cooking will vary from grilling, oven cooking, frying etc. very high odour control techniques will be considered.



2. Kitchen ventilation System

The restaurant's basement kitchen will be equipped with a mechanical supply and extract ventilation system, designed in accordance with Building Regulations Approved Document F and HVCA & BESA DW172 standards.

The kitchen shall have an extract ventilation system with a balanced supply air make-up of 85%. Separate fans will be used to provide supply and extract air, with ducting routed to the basement kitchen area. A stainless-steel ventilation canopy will be installed above the cooking appliances and equipment.

The extract air ventilation rate will be designed to ensure a suitable face velocity at the canopy. Supply air will be provided at 85% of the extract ventilation capacity. The extract section of the canopy will include grease filtration with UV technology. Given the potential for odour pollution from the cooking processes, the kitchen ventilation system will be designed to minimize odours.

Extract air shall be discharged via low-level extract discharge through the plant room louver, equipped with a cut-off cowl and bird mesh, with very high-level odour treatment.

Galvanised mild steel sheet of lock-formed ducting in accordance with DW144. Constructed from hot-dip galvanized steel sheet. Ductwork passing between fire compartments will be fire-rated, and fire dampers will be installed in the supply network where ductwork crosses fire compartments.

The supply and extract fans shall be electrically interlocked to maintain a balanced system.

An interlock of the ventilation system to the gas supply serving the cooking equipment shall be installed as required by BS6173. In the event of an air flow failure, the gas supply will be switched off.

Access panels will be installed in the supply and extract ductwork to facilitate cleaning.

Acoustic attenuators will be added to both the supply and extract fans to reduce airborne noise. Volume control dampers will be installed in the supply ductwork to enable balancing and commissioning.

3. Seating Extract Ventilation

The seating area will be ventilated using a Korean BBQ smoke pipe system for each seating space, with ducting connected to the seating extract fan located in the plant room.

The Seating extract ventilation system will also feature an 85% balanced supply air make-up. Separate fans will be provided for supply and extract ventilation in the seating area, with the extract fan ducted from the plant room in car park deck (Second floor) to the ground floor seating area.

The supply fan will be installed at a high level within the ceiling void of the seating area, with intake air drawn from a louver located on the external façade.

Extract air from the seating area will be discharged through a low-level louver in the plant room, equipped with a cut-off cowl and bird mesh for enhanced odour control.

The supply and extract ductwork will adhere to HVCA DW144 standards for galvanized sheet metal. Fire-rated ductwork will be used where extract ductwork passes between fire compartments, and fire dampers will be installed where the supply network crosses fire compartments.

Access panels will be provided for ductwork cleaning, and acoustic attenuators will be installed on both the supply and extract fans to mitigate airborne noise.

Volume control dampers will be included in the supply ductwork system to allow for proper balancing and commissioning.