Date: 24 May 2024

Site: Caravan Manchester REV 2

Interpretation of Requirements

This report is submitted to discharge the relevant Condition under 131318/JO/2021 .

As with any project we get involved in we always recommend to our clients that they should closely follow the EMAQ guide for guidance on odour control equipment selection.
This ensures that what they propose will be in line with local authority's requirements and if the system is maintained correctly they will not exhaust nuisance odours leading to complaints from nearby residents.

With this in mind I carried out a risk assessment as detailed in Annex C of the EMAQ Guide.
Taking into consideration the level of discharge, proximity of receptors, size of kitchen and cooking type your project requires a high level of odour control to comply.

We have scored as below and as taken from Annex C: Risk Assessment for Odour;

Dispersion = 5
Proximity of receptors = 5
Size of kitchen = 5
Cooking type = 1
Total score = 16

The type of odour abatement system that complies is as below, taken directly from the EMAQ Guide and must be to a Low level of control;

Odour arrestment plant performance

Low level odour control may include:

1 Stage Filtration & UV ozone system.

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.
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.
Cooking type (odour and grease loading)	Very high	10	Pub (high level of fried food), fried chicken, burgers or fish & chips.
	High	7	Kebab, Vietnamese, Thai or Indian.
	Medium	4	Cantonese, Japanese or Chinese.
	Low	1	Most pubs, Italian, French, Pizza or steakhouse.

The System

UVO

this uses UV technology by producing Ozone to neutralise the cooking odours & Grease

This will design and installed with a 0.2 dwell time ensuring the system designed meets EMAQ guidelines.

Unlike other UV-C systems, our UV-O units are located outside of the kitchen extract duct and are connected via a spigot and small diameter ducting.

The UV-O range uses UV-C technology to produce ozone and hydroxyl free radicals to oxidise cooking odours through a process of ozonolysis.

Although it is widely accepted that the best way to apply UV-C is directly in-line with the air stream itself, this can incur the problem of the lamps getting dirty and thus greatly reducing their effectiveness.

With our UV-O units the air flow does not come from the exhaust duct but from the ambient air around the unit, which is filtered on entry. This means that it is able to provide a uniform supply of ozone and hydroxyl free radicals into the extract system with an extremely low pressure loss.
As with our UV-C range, for optimum performance we would recommend 2 seconds of dwell time to allow the ozone to work effectively upon the malodorous gasses within the duct.

As you can see the system that has been specified is in line with EMAQ guidance.

2 No. UV-O 1000 Unit.

Specification per unit

Air Volume Max	$2m^3/s$
Electrical Supply	220/240V 50HV 1ph
Power Consumption	700W
Weight	50 Kg
Min/Max Working Temperature	4/56°C
Max Relative Humidity	75%

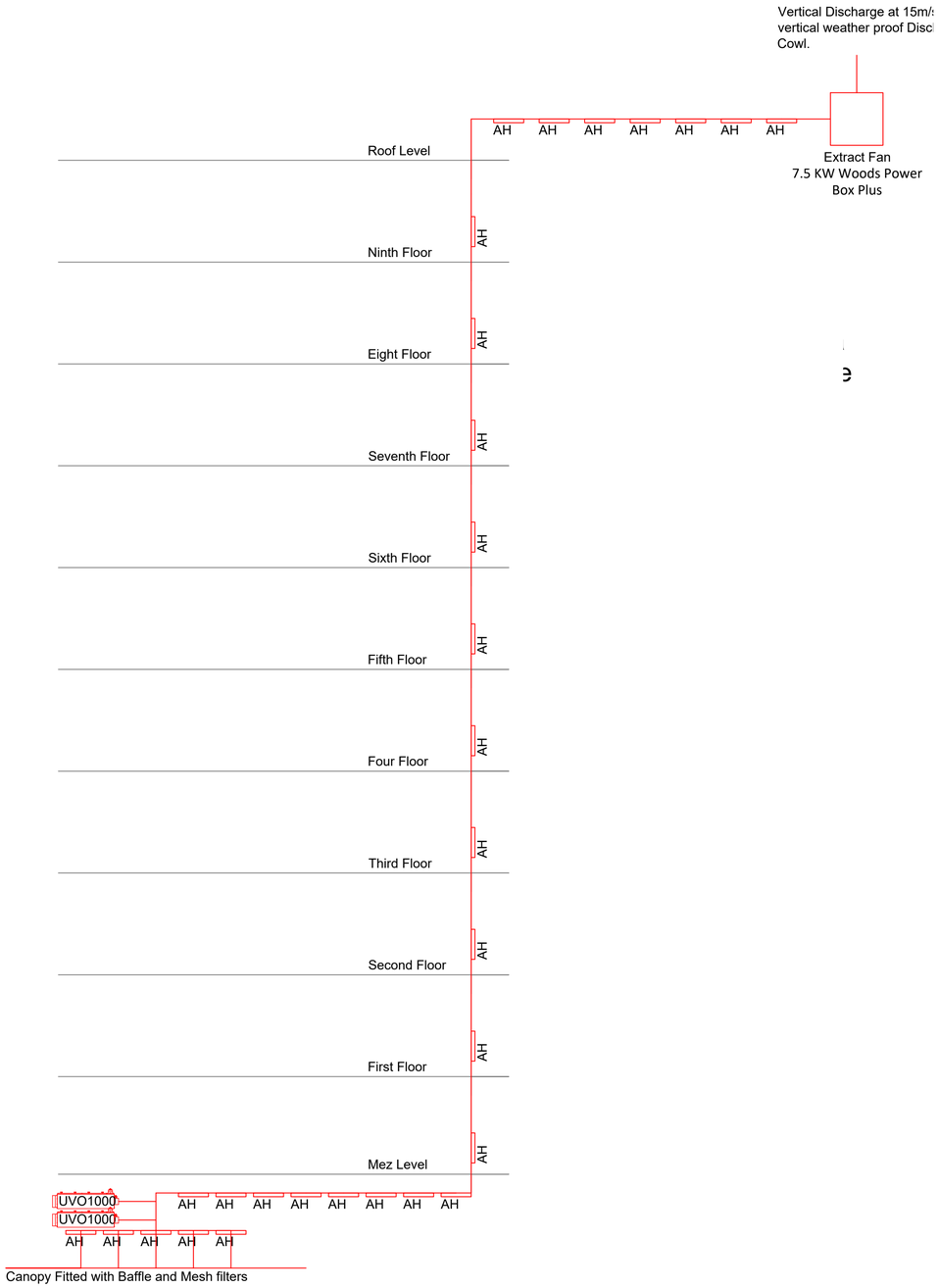
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We thank you for your enquiry, should you require any additional information or clarification please do not hesitate to contact us.

For and on behalf of MLeech Services.

Matthew Leech

E&OE



NOTES

FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING. ALL CONTRACTORS MUST VISIT THE SITE AND BE RESPONSIBLE FOR TAKING AND CHECKING DIMENSIONS.

- Works to Comply to DW172
- Steal beam and supports not to be damaged or drilled
- Setting out to be agreed, in conjunction with final drawing pack. This drawing is tender purposes only
- Drawings to be reviewed in conjunction with fire strategy

PM	MJL	REV:1
CAD	MJL	.
DATE	26/03/24	

STATUS

Proposed

MLEECH SERVICES

Abbotsmead
Maldon CM9 4PT
MOB: 07855340296

PROJECT

Caravan Manchester

TITLE

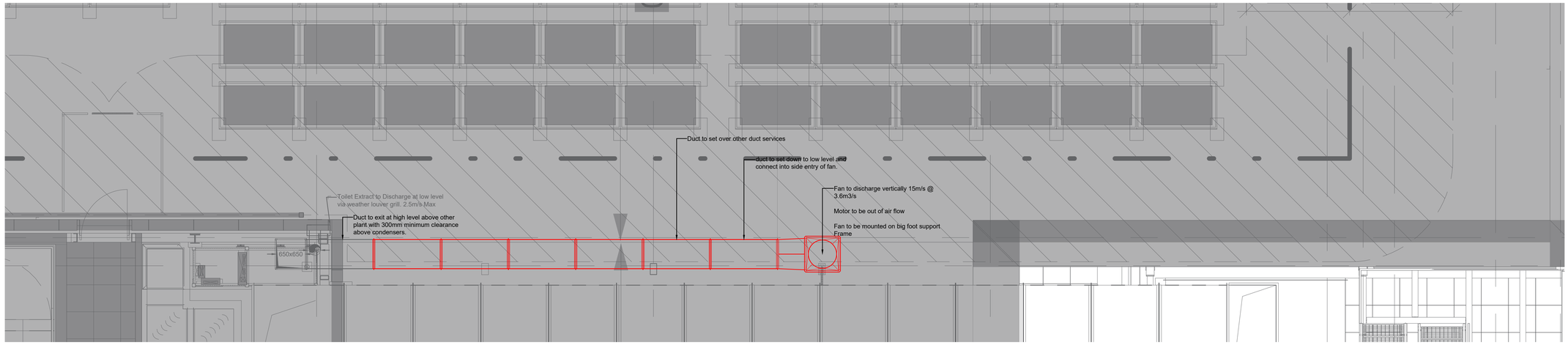
Extract Access Hatchs and UVO

PM	DESIGNER	CAD	DATE	SCALE	PAPER
MJL	MJL	MJL	08/02/24	NTS	A1

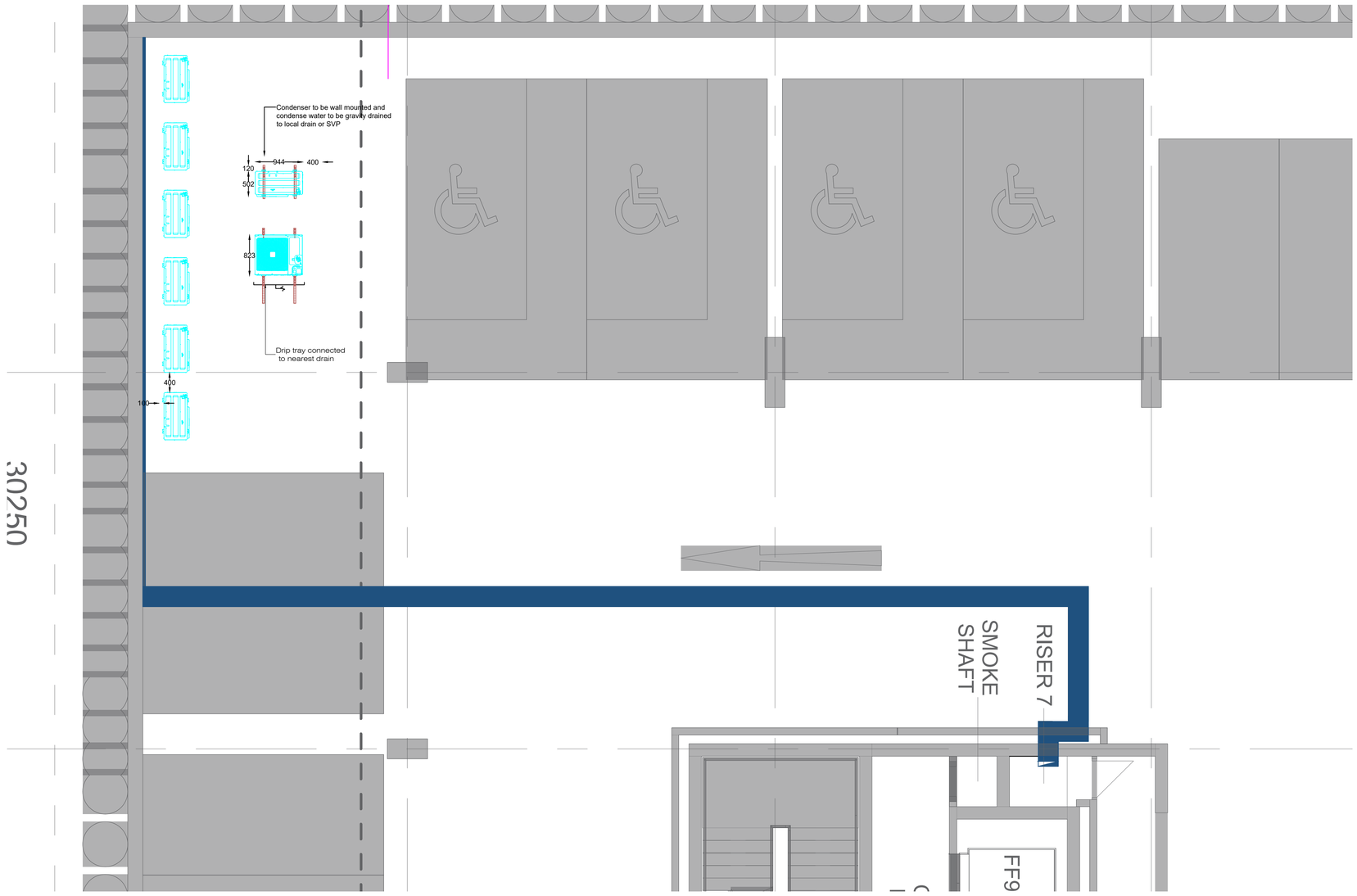
DRAWING NUMBER

CARAVAN MANCHESTER MIXER FLUE

Roof Detail



Basement Car Park Detail



NOTES

FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING. ALL CONTRACTORS MUST VISIT THE SITE AND BE RESPONSIBLE FOR TAKING AND CHECKING DIMENSIONS.

- Works to Comply to DW172
- Steal beam and supports not to be damaged or drilled
- Setting out to be agreed, in conjunction with final drawing pack. This drawing is tender purposes only
- Drawings to be reviewed in conjunction with fire strategy
- General Extract to be reviewed
- Pipe work Route within LL areas to be reviewed
- All Works with in LL demise be out of normal working hours

PM	MJL	REV.2
CAD	MJL	Air Flow changed to 15m/s
DATE	26/03/24	
PM	MJL	REV.1
CAD	MJL	-
DATE	13/12/23	

STATUS

Proposed

LEECH SERVICES

Abbotsmead
Maldon CM9 4PT
MOB: 07855340296

PROJECT

Caravan Manchester
Stage 2 - Tenant Fitout

TITLE

HVAC Tender Drawing

PM	DESIGNER	CAD	DATE	SCALE	PAPER
MJL	MJL	MJL	10/02/23	1:100	A1

DRAWING NUMBER

CARAVAN MANCHESTER MIXER FLUE