

Old Granada Studios,
Manchester
(OGS)

Zone 4 & 5 Kitchen Extract Statement

CONSOLUX

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The proposed kitchen areas shall be provided with mechanical kitchen extract and make-up supply air ventilation. The kitchens are located on the ground, 1st and 7th floors. The kitchen extract systems shall be designed to meet the various criteria in the Chartered Institute of Building Service Engineers Guides, DW172 and DEFRA design guidance. These systems shall generally comprise of roof mounted supply and extract systems with the extract outlets located as far away as possible from any fresh air intake points and be directed away from the occupied spaces and other air handling plant. The main kitchen area extract systems shall incorporate specialist filtration to control the emission of odours and grease particles. This detailed ventilation will be confirmed through the submission of condition discharge information prior to operation once the odour mitigation requirements are known.

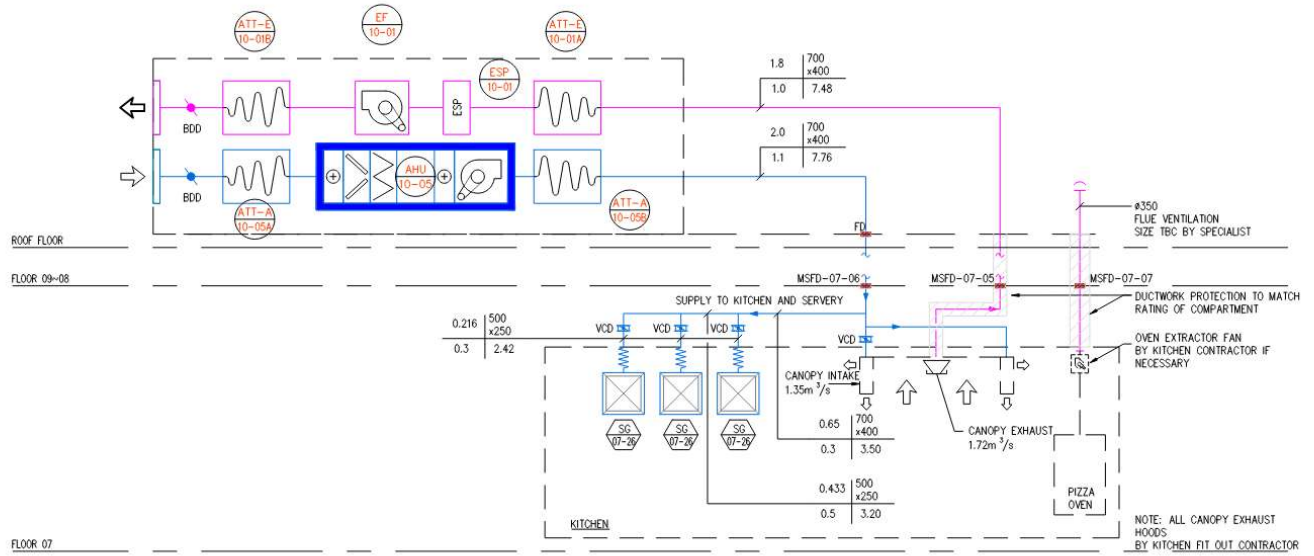
Supply ventilation shall be sized at 95% of the extract requirements, to ensure negative pressure, in accordance with DW172.

Please see below detail, that shows the point in the kitchen supply and extract system of the ESP AG UV filtration unit, that provides the odour & grease control measure to comply with the EMAQ guidance for a high level of odour control.

The below details are also shown on the Mechanical Services Ventilation Services Level LG-01 Schematic 1 of 2 and Mechanical Services Ventilation Services Levels 07-09 Schematic 2 of 2 further down this document.



Old Granada Studios
660-4.0-4.2: Z4 & Z5 Ventilation Strategy Statement



KITCHEN VENTILATION DETAIL 2

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/Medium	Low Level Odour Control	Less than 20
High	High Level Odour Control	20-35
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	Rating	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 -15m/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/grease loading)	Very High	10	Pub (high level of fried food), fried chicken, burgers or fish & chips. Turkish, Middle Eastern or any premises cooking with solid fuel.
	High	7	Vietnamese, Thai, Indian, Japanese, Chinese, Steakhouse
	Medium	3	Cantonese, Italian, French, Pizza (gas fired)
	Low	1	Most pubs (no fried food, mainly reheating and sandwiches etc), Tea rooms.

Site Details

Consultant/Designer	Consolux M&E Consulting Ltd
Site Address	Mollies Motel & Diner, Manchester

Below is an evaluation for the site based on the criteria on the previous page.

Criteria	Rating	Score	Details/ Comments
Dispersion	Moderate	10	Main kitchen extract discharges above flat roof on level 2. Secondary Kitchen extract discharges above flat roof on level 10.
Proximity of Receptors	Close	10	Nearest receptor within 20 metres of the discharge.
Size of Kitchen	Large	5	Estimated >100 daily covers.
Cooking Type	High	10	Varied menu – Steaks, Fried Chicken and Burgers

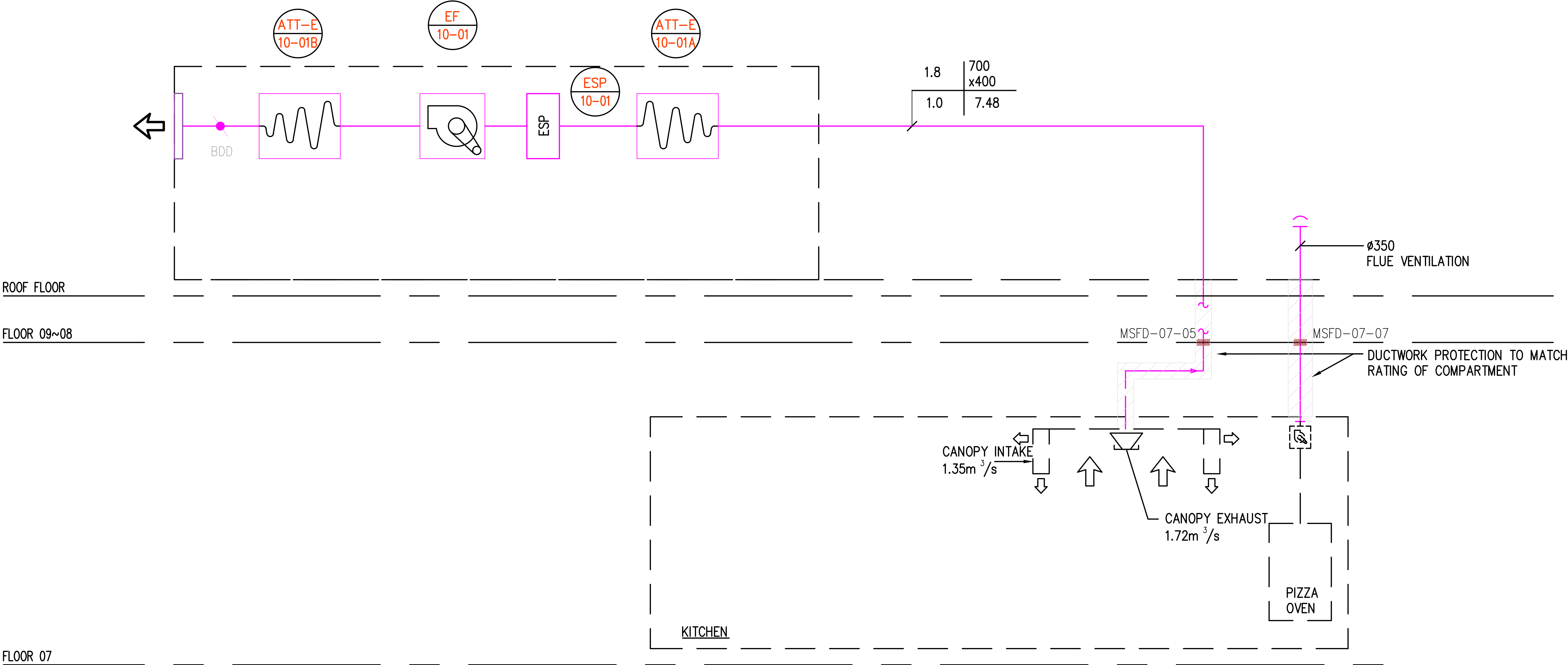
Impact Risk	Odour Control Requirement	Significance Score
High	High Level of Odour	35

Plasma Clean Air Recommendation

Based on a high level of odour control required and taking into consideration the kitchen ventilation design we propose that ESP filtration is implemented to remove grease and smoke particulate, followed by UV ozone system to remove the gaseous odours. This is in-line with EMAQ guidance for a high level of odour control (page 6).

Completed by: Chris Tattersall

Evaluation Date: 05.09.24



KITCHEN VENTILATION DETAIL 2

010203040506070809101112131415161718192021222324252627282930313233343536373839404142434445464748495051525354555657585960616263646566676869707172737475767778798081828384858687888990919293949596979899100

MILLIMETERS

LINEAR SCALE BAR

reference drawings

drawing number	rev	date	supplied by

Kityplan

notes

- DO NOT SCALE FROM THIS DRAWING
- THIS DRAWING IS FOR SPATIAL CO-ORDINATION PURPOSES ONLY. ALL CONTRACTORS TO CHECK THEIR SERVICES BEFORE PROCEEDING WITH SITE INSTALLATION. ANY DISCREPANCIES OR QUERIES PLEASE CONTACT THE CAI CO-ORDINATOR.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS, SPECIFICATIONS AND SCHEDULES. ANY DISCREPANCY TO BE BROUGHT TO ATTENTION OF VAUGHAN PRIOR TO INSTALLATION.
- ANY PENETRATION THROUGH FLOOR, SEEK STRUCTURAL ENGINEERS APPROVAL BEFORE COMMENCEMENT.
- ALL PLANT AND EQUIPMENT SHALL BE INSTALLED FULLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

VENTILATION INSTALLATION

- ALL FAN INSTALLATIONS TO BE COMPLETE WITH ALL ACCESSORIES, CONTROLS AND FITTINGS TO PROVIDE A COMPLETE AND FUNCTIONAL INSTALLATION.
- ALL VENTILATION SYSTEMS AND COMPONENTS TO BE INSTALLED, TESTED AND COMMISSIONED IN ACCORDANCE WITH BUILDING REGULATIONS APPROVED DOCUMENT 'T'.
- ALL DUCTWORK SHALL BE INSTALLED HOT DIP GALVANIZED AS PER DW144.
- ALL DUCTWORK TO BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH DW144.
- ALL DUCT RUNS ASSUME CLEAR PATHS THROUGH CEILING VOIDS AND HAVE NOT ALLOWED FOR DEVIATION THROUGH JOISTS.
- FLEXIBLE DUCTING HAS BEEN ALLOWED FOR THE FINAL UNIT CONNECTION, NO MORE THAN 300mm PER LEG SHOULD BE USED AS PER SPEC GUIDANCE.
- ATTENUATION AND FIRE PROTECTION HAS BEEN EXCLUDED AS WE ARE NOT IN RECEIPT OF A FIRE STRATEGY OR ACOUSTIC REPORT AT THIS STAGE.
- CONDENSATE DRAIN PIPING WILL BE REQUIRED IN 25mm. ALL CONDENSATE PIPING IS TO BE INSULATED WITHIN A COLD SPACE AND HAVE A MINIMUM FALL OF 10 DEGREES.
- ALL DUCTING WITHIN AN UNHEATED SPACE MUST BE INSULATED IN ACCORDANCE WITH PART 'T' OF THE 2006 BUILDING REGULATIONS (FRESH AIR INTAKE AND EXHAUST AIR LEGS ARE TO BE FULLY INSULATED BACK TO THE UNIT).
- A MINIMUM DISTANCE OF 300mm IS REQUIRED BETWEEN EACH SPOT OFF THE UNIT AND ANY DUCTWORK FITTING. FLEXIBLE DUCT SHOULD BE PULLED TAUGHT WITH SMOOTH BENDS ONLY.
- PLEASE NOTE TO COMPLY WITH CURRENT BUILDING REGULATIONS MANUAL BOOST SWITCHES ARE TO BE PROVIDED TO EACH NET AREA THESE ARE TO BE PROVIDED AND FITTED BY THE CONTRACTOR.
- SUPPLY AND EXTRACT VALVES SHALL BE COMMISSIONED / TRIMMED AT THE GRILLE TO ENSURE THE CORRECT FLOW RATE IS ACHIEVED.
- BETWEEN EACH ROOF AND FILL BETWEEN FLOOR LEVELS, IT SHALL ALLOW FOR OFFSETS DURING INSTALLATION.
- GA & F7 FILTRATION SHALL BE UTILISED

status

FOR CONSTRUCTION

client

ARJ CONSTRUCTION LTD.

project

OLD GRANDA STUDIOS
ATHERTON STREET, MANCHESTER
M3 3GS

draw title

MECHANICAL SERVICES
VENTILATION SERVICES
LV 07-09 SCHEMATIC 2 OF 2

draw no.

0765-VAU-ZZ-XX-SCH-M-5704

drawn

CC

date

20/03/24

checked

LM

date

20/03/24

scale

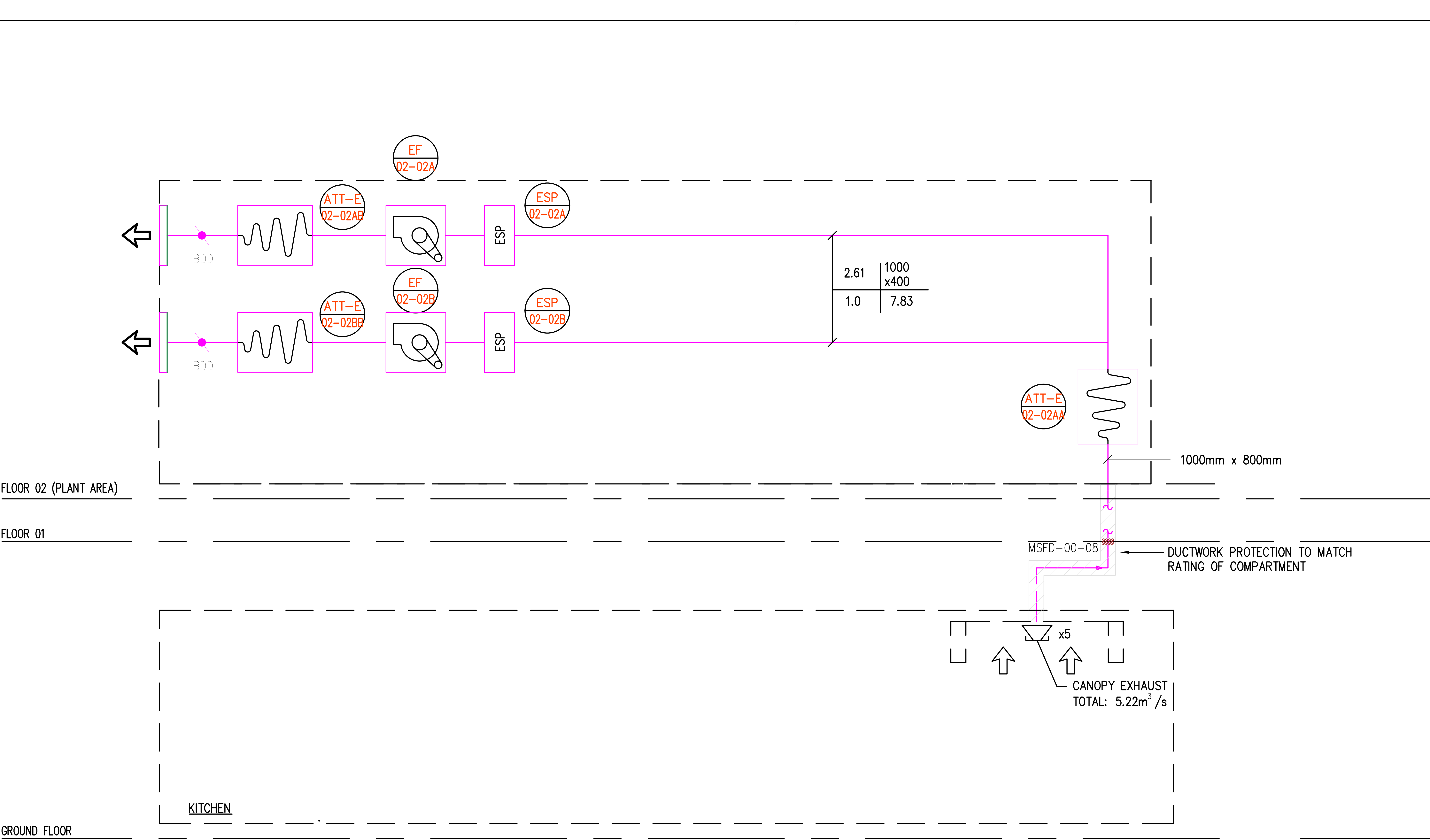
N.T.S.

contract

765

rev

C2



LEGEND

0 10 20 30 40 50 60 70 80 90 100

LINEAR SCALE BAR

reference drawings

drawing number	rev	date	supplied by

Kityplan

notes

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- ATTENUATION AND FIRE PROTECTION HAS BEEN EXCLUDED AS WE ARE NOT IN RECEIPT OF A FIRE STRIKES/ OR ACUSTIC REPORT AT THIS STAGE.
- CONDENSATE DRAIN PIPEWORK WILL BE REQUIRED IN 25mm. ALL CONDENSATE PIPEWORK IS TO BE INSULATED WITH A COLD SPACE AND HAVE A MINIMUM FALL OF 10 DEGREES.
- ALL DUCTING WITHIN AN UNHEATED SPACE MUST BE INSULATED IN ACCORDANCE WITH PART 7T OF THE 2004 BUILDING REGULATIONS. FRESH AIR INTAKE AND EXHAUST AIR LEAKS ARE TO BE FULLY INSULATED BACK TO THE UNIT.
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- PLEASE NOTE TO COMPLY WITH CURRENT BUILDING REGULATIONS MANUAL BOOST SWITCHES ARE TO BE PROVIDED TO EACH NET AREA. THESE ARE TO BE PROVIDED AND FITTED BY THE CONTRACTOR.
- BETWEEN EACH RISE AND FALL BETWEEN FLOOR LEVELS, IT SHALL ALLOW FOR OFFSETS DURING INSTALLATION.
- GA & F7 FILTRATION SHALL BE UTILISED

FLOOR 02 (PLANT AREA)

FLOOR 01

GROUND FLOOR

KITCHEN VENTILATION

VAUGHAN

VAUGHAN ENGINEERING SERVICES LTD.
ALBERTON INDUSTRIAL, 505 ANTON ROAD
NEWTON ABBEY, CO. ANTRIM, BT36 4BP
Tel: 028 9021 2441 Fax: 028 9021 2445
Email: enquiries@vaughan-group.co.uk
Website: www.vaughan-group.co.uk

client ARJ CONSTRUCTION LTD.

project OLD GRANDA STUDIOS
ATHERTON STREET, MANCHESTER
M3 3GS

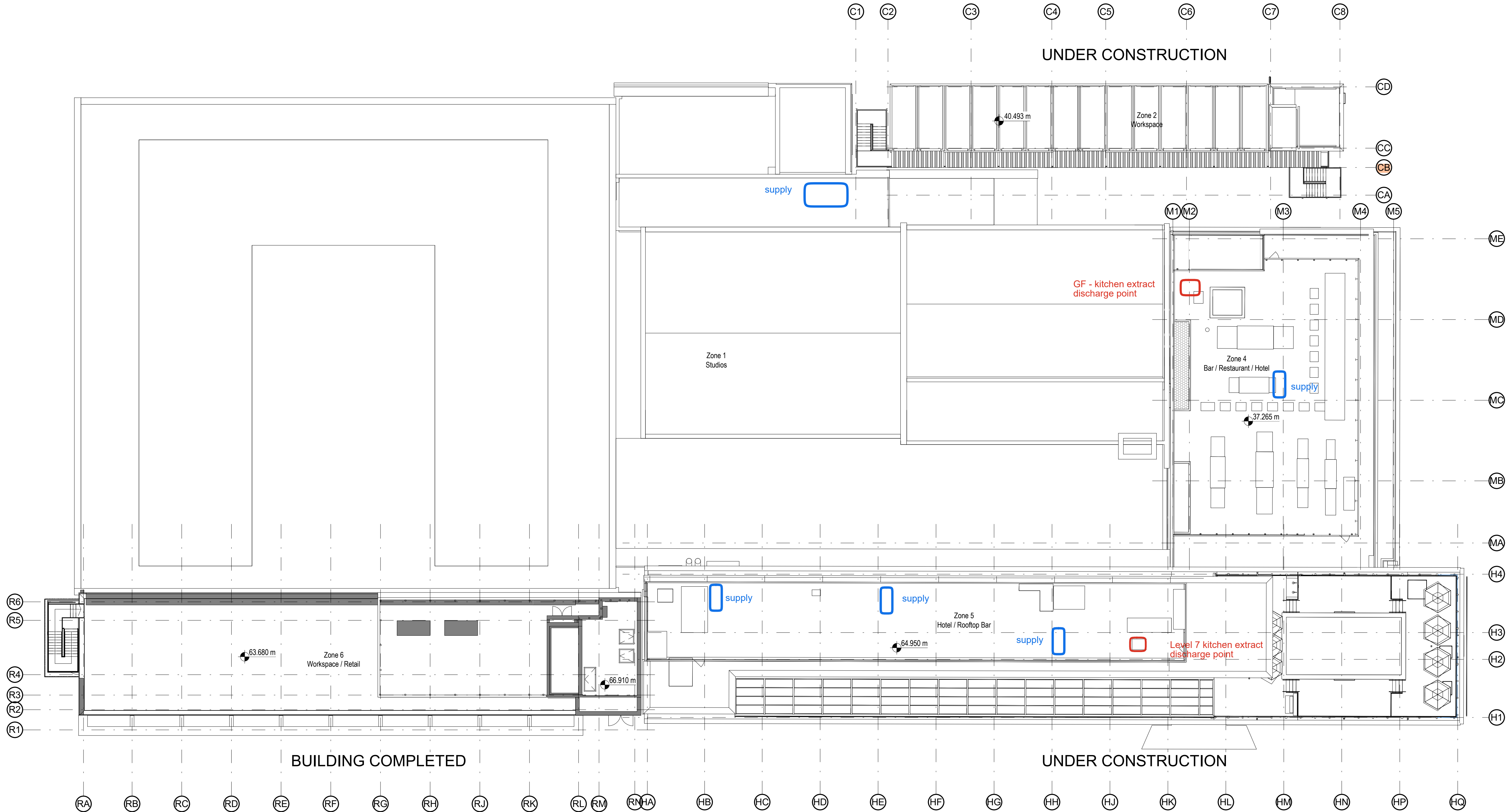
MECHANICAL SERVICES
VENTILATION SERVICES
LV LG-01 SCHEMATIC 1 OF 2

drawn CC date 20/03/24

checked LM date 20/03/24

scale N.T.S. contract 765

C2

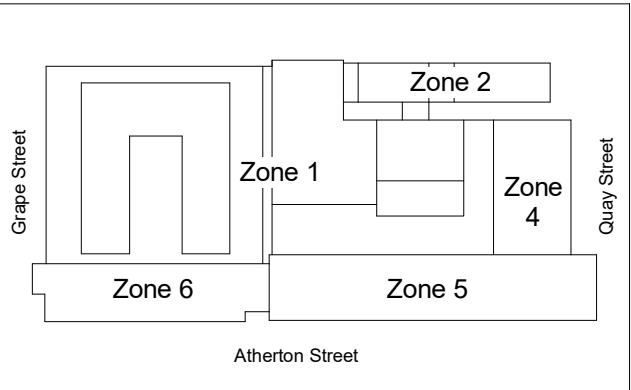
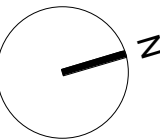


Notes

Do not scale from this drawing.

All dimensions are to be checked prior to construction and any discrepancies are to be identified to the Architect.

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KEY PLAN

E	01/12/23	Planning updates to Zones 4 & 5	CLH
D	01/06/21	Issued for planning amendment	CS
C	30/07/20	Updated for Planning	HM
B	28/02/20	Levels added.	GL
A	14/02/20	First issue	GL

Revisions

Status

PLANNING

Client
Manchester Quays Ltd

Project
OGS
St John's
Manchester

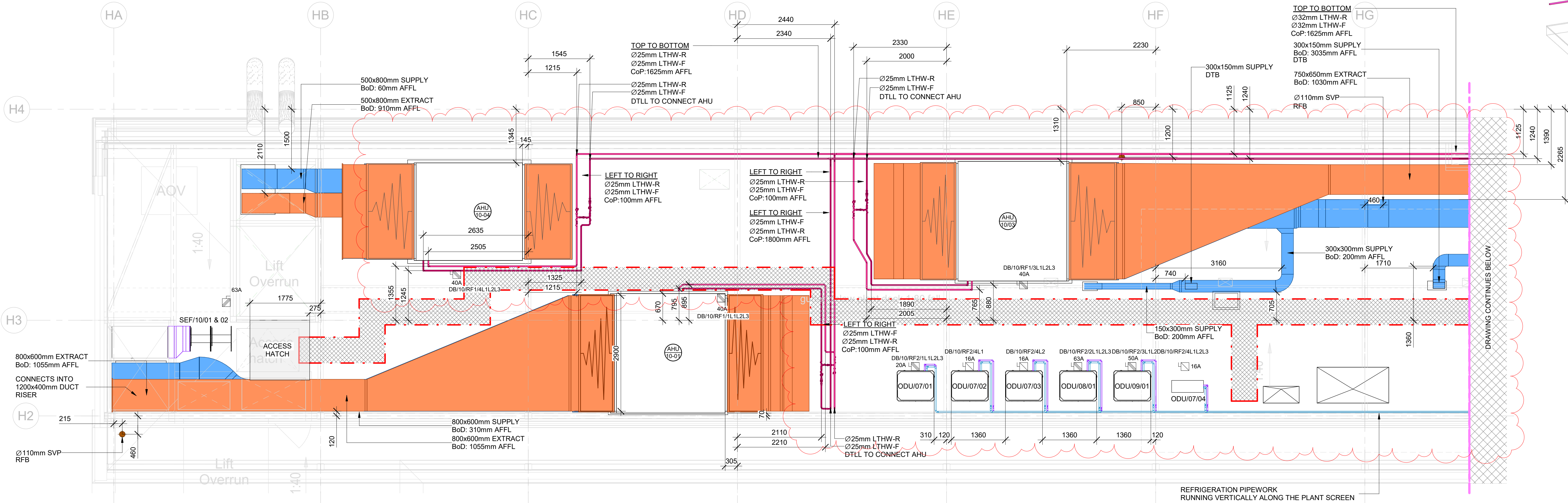
Title
Proposed GA Plan
Roof Plan

Scale	Size	Date	Drawn	Checked
1 : 200	A1	12/03/21	CS	HM

3DReid
www.3DReid.com
Architecture Interiors Masterplanning

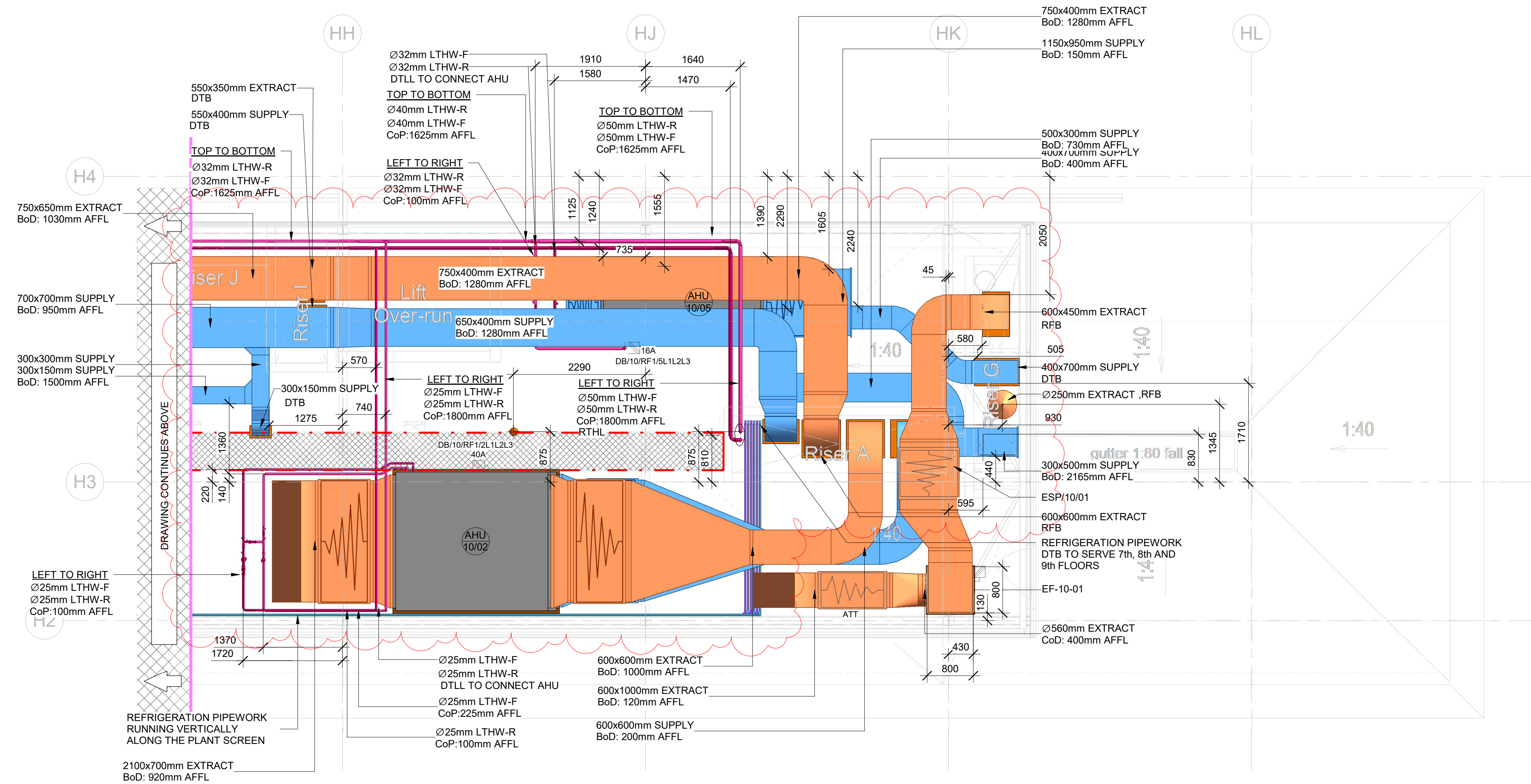
3D
REID

Drawing No. 180146-3DR-Z0-11-DR-D111 Rev. E



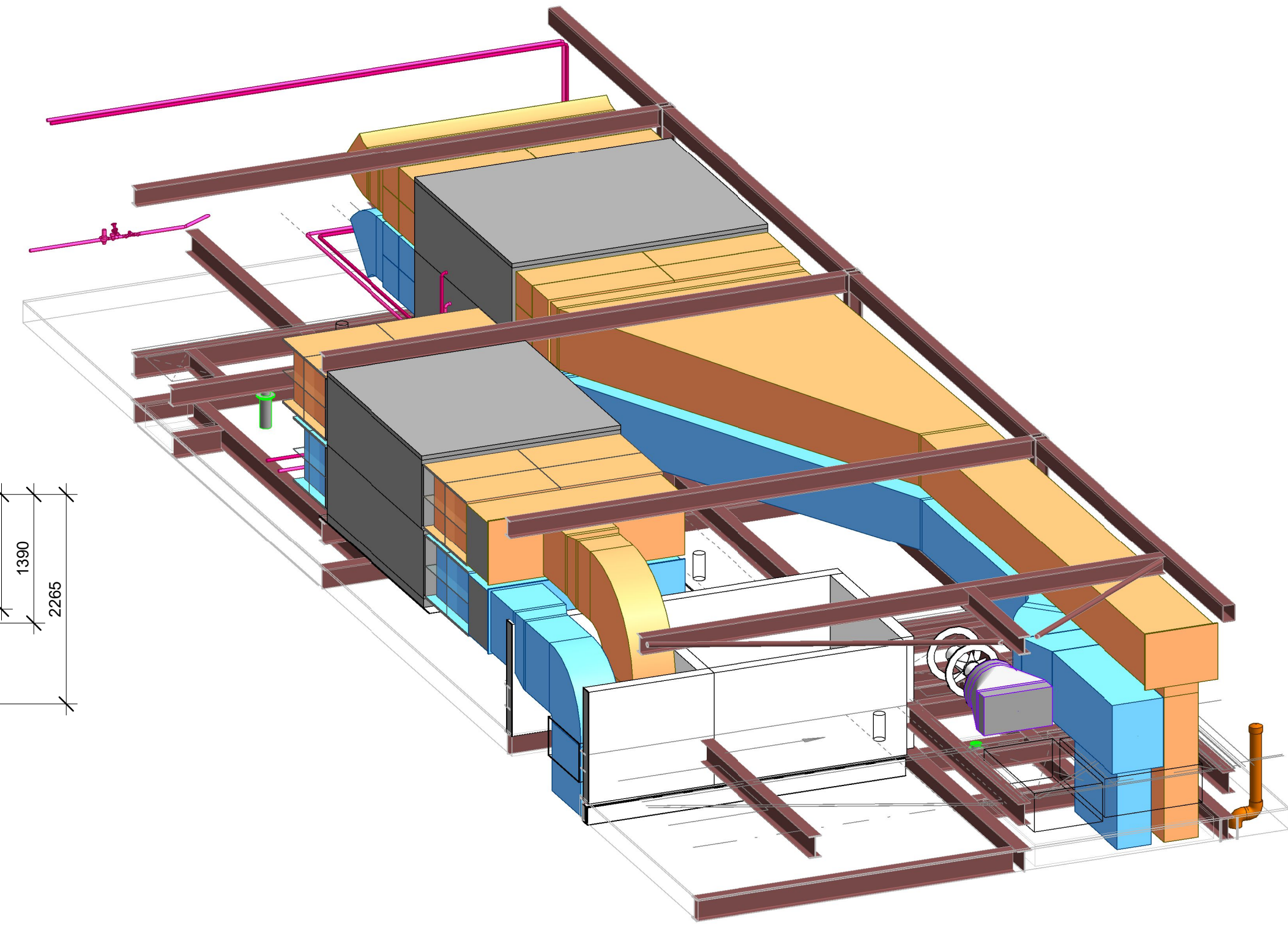
Combined Services / RF Hotel (Left Side)

1 : 50

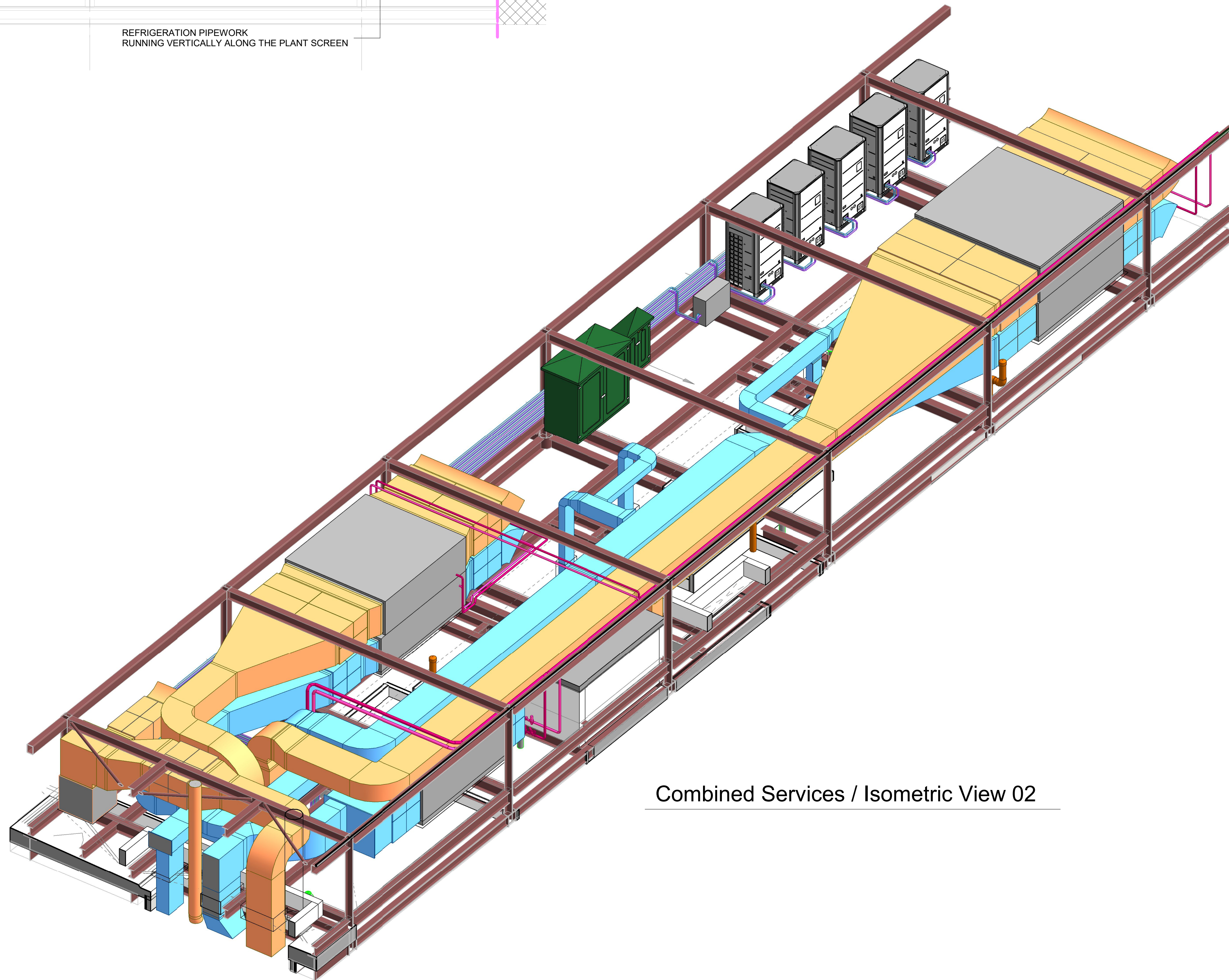


Combined Services / RF Hotel (Right Side)

1 : 50



Combined Services / Isometric View 01



Combined Services / Isometric View 02

0 1 2 MILLIMETER 10

LINEAR SCALE BAR

reference			
drawing	rev	date	supplied

Keyplan

notes

Rev	Issued by	Description	Date
C5	JB	MINOR AMENDMENTS	21.12.23
C4	MM	MINOR AMENDMENTS	07.09.23
C3	ND	FOR CONSTRUCTION	15.08.23
C2	MM	FOR CONSTRUCTION	01.08.23
C1	MM	FOR CONSTRUCTION	02.06.23

status

FOR CONSTRUCTION



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Email: sales@vaughan-group.co.uk
Website: www.vaughan-group.co.uk

client
ARJ CONSTRUCTION LTD

project
OLD GRANADA STUDIOS

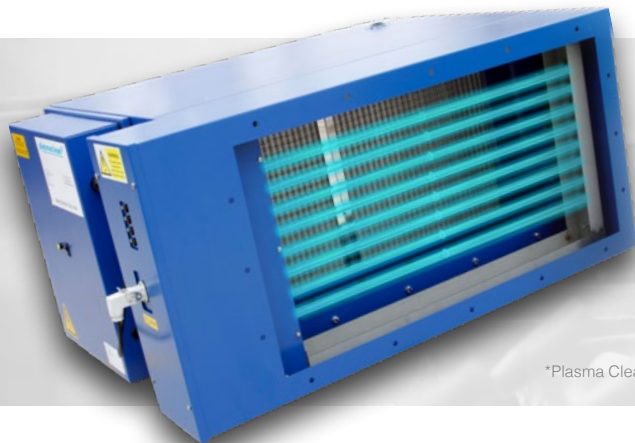
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MECHANICAL SERVICES
COMBINED SERVICES LAYOUT
ROOF LEVEL

drawing no. 0765-VAU-ZZ-RL-DR-M-5101

drawn	MM	date	02.06.23	rev
checked	CWC	date	02.06.23	
scale	1 : 50	contract	765	

C5

The full package in a small footprint



*Plasma Clean is continuously improving its products and services and reserves the right to alter designs without prior notice

Our ESP UV range is up to twice as effective as competitor units. It's also integrated, so you get the full works – grease, smoke and odour control – in one neat package.

There's also a perfectly matched power supply and the UV lamps come with a 10,000-hour lifespan. So you get superior UVC performance over long periods of time.

Benefits

- Offers integrated grease, smoke and odour removal
- Keeps extract ductwork virtually grease-free
- Reduces fire risk
- Cuts the cost of maintenance
- Enables heat recovery with grease-free air.

Related products **Electrostatix 3500/7000 / 10500**
Offering the highest particulate removal efficiency in their class - removing sub-micron particles by 95%
[Find out more](#)



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Earl Business Centre, Dowry Street, Oldham, OL8 2PF

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Introduction to Kitchen Ventilation from Plasma Clean

Grease, odour and smoke emissions produced by commercial kitchens are an increasing concern both for existing establishments and for new build projects. Therefore, it is essential to implement a suitable grease and odour control strategy - as a matter of urgency - to ensure that the kitchen emissions comply with DW/172 and DEFRA guidance. This is not just about protecting the environment from nuisance emissions, but also reducing grease build up in the ductwork, which could present a fire risk if left untreated.

Plasma Clean's Kitchen Ventilation range consists of a range of modular solutions for grease, smoke and odour control which can be used alone or can be combined to provide a site-specific solution. For example, a pizza restaurant will not require the same level of grease, odour and smoke control equipment as a char-grill steak house.

Starting at the canopy, our [Coil Filters](#) are designed to capture 95% of grease particles; between 55-70% more than traditional baffle-type filters. Our [Xtract](#) range releases natural ozone - a superb disinfectant and odour neutraliser - directly into kitchen ventilation systems. Our [Techniclean](#) range includes the canopy mounted **Techniclean CM**, combining high intensity UVC light with ozone technology to break down odour and grease in the air, as well as the **Techniclean Mini, 5000** and **7500** models; perfect for new projects or retrofitting into existing ductwork. High levels of grease and smoke particulate are treated by the [Electrostatix](#) and combining Electrostatic Precipitation with UVC, are our [ESP UV](#) units, to provide highly efficient removal of grease, smoke and odour from a compact unit.

For a final polish - removing residual ozone - [Activated Carbon](#) filters are the ideal choice for low level extraction. Our Carbon Housing allows Activated Carbon filters to sit in 3, 6 or 9 easily mountable Sitesafe Discarb units.

When it comes to Control Panels, our **Air Flow Interlock** range is used to synchronise the operation of all of our Kitchen Ventilation products with detected air flow. The equipment is automatically turned off when the system is shut down, preventing accidental exposure to UVC light and ozone, whilst ensuring energy efficiency for the system. Options are available for Lamp Life Indicators, Lamp Fault and BMS interface.

Filtration with Ozone from Plasma Clean

Each unit incorporates a 5 stage filtration system consisting of:

- Aluminium pre-filter
- Combined electronic Ioniser
- Electrostatic collector cells
- Aluminium post filter
- UVC lamp frame containing 2, 4, 6 or 8 high output UVC lamps

Installation

It is important to achieve uniform distribution of air across the filter surface. Inlet and outlet tapers must be sized correctly and the equipment must be located no less than 1m from any bend. Plasma Clean can offer assistance with the installation design if required. Requires two people plus lifting gear to carry and install.

Maintenance

THIS PRODUCT CONTAINS LAMPS THAT EMIT UVC LIGHT. IMMEDIATE OR PROLONGED EXPOSURE TO UVC LIGHT CAN RESULT IN PAINFUL EYE INJURY, SKIN BURN, PREMATURE SKIN AGING OR SKIN CANCER. MAINTENANCE IS TO BE CARRIED OUT BY FULLY TRAINED PERSONNEL ONLY

A Plasma Clean service contract is available (please enquire) and in any case Plasma Clean would recommend Plasma Clean trained personnel to carry out the following :

- Servicing is normally confined to the regular cleaning of the electrostatic filter components and UVC lamps (detergent followed by isopropyl alcohol).
- The aluminium pre and post filters require washing when dirty
- For maximum efficiency establish a regular cleaning cycle based on routine checks of the ionisers, collector cells and UVC lamps during the first few months of use.

Accessories

Control Panel

Warranty

Terms a1 year manufactures warranty [subject to terms and conditions](#)

Extended 3 year warranty [care plan available](#)

Terms

In accordance with our standard terms of business.

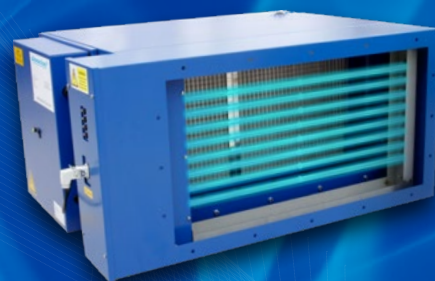
Technical Specifications & Data

	ESP AG 7000/UVC	ESP 10500 AG UVC
Dimensions (HWD)	534x 1103 x 780mm	534 x 1564 x 780mm
Air Volume*	up to 1.94m ³ /s	up to 2.91m ³ /s
Input Voltage	230Vac / 1 phase / 50-60Hz	
Power	up to 600W	up to 800W
Weight	82kg	115kg
Pressure	<115Pa (dirty filters)	

*Air volume is subject to cooking application. Duty is reduced to 1.4m³/s and 2.1m³/s respectively for high grease and odour content.

Number of UVC lamps range from 2-8 subject to application.

Speak to one of our team for further information.





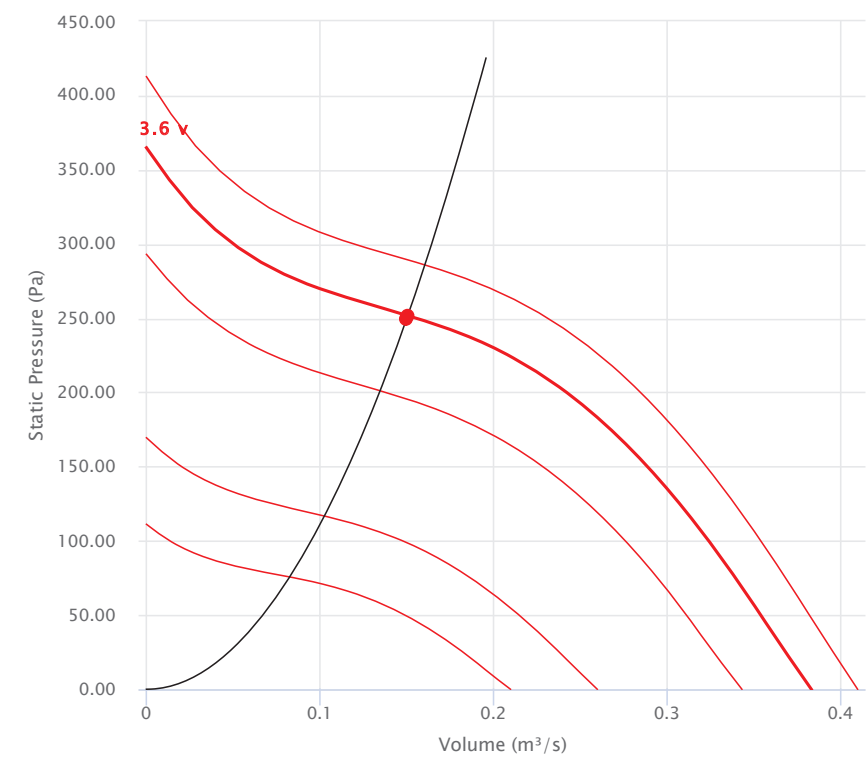
Project Name:	OLD GRANADA STUDIOS MOLLIES HOTEL		
Client:	COMPLETE VENT	Engineer:	Mark Hadfield
Quote Number:	Q 40003	Date:	04/04/2023
Item Reference:	EF 00 01	Item Quantity:	1

MV EC 250 MultiVent In-Line Mixed Flow Fan , EC Technology



MixFlowVent swing out EC-in-line fan with high volume flow and pressure performance for space-saving in-duct installation. Casing manufactured from impact resistant and corrosion resistant polymer, colour light-grey, with integrated mounting frame for easy installation on wall and ceiling as well as connection spigots which fit all standard duct sizes. By loosening the clips the fan unit with terminal box can be rotated to any position and can be removed for maintenance and cleaning purposes. Mixed flow impeller with 8 spatially curved blades made from impact resistant polymers. Dynamically balanced to class G 6.3 VDI 20060 and DIN ISO 1940.

Performance Chart



Product

Ref.No.	6035
Model Code	MV EC 250
Fan Size	250 mm
Maximum airflow temp.	50 °C
Weight	5.3 kg

Performance

Requested Duty	0.150 m³/s @ 250 Pa (Static)
Actual Duty	0.151 m³/s @ 252 Pa (Static)
Fan Nominal Speed	2740 rpm
Estimated Control Voltage	3.6 v
Specific Fan Power	0.58 W/l/s
Output Power	0.104 kW

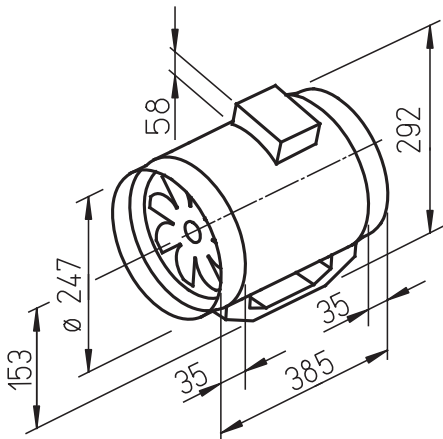
Motor

Rating	0.126 kW
Electrical Supply	230v/1Ph/50Hz
Full Load Current	1 A

Sound

Sound Pressure Level		35 dB(A) at 3m							
Spectrum	Hz	Total	125	250	500	1k	2k	4k	8k
LwA Intake	dB(A)	71	53	64	66	66	64	56	47
LwA Extract	dB(A)	71	52	63	66	65	66	59	49
LwA Breakout	dB(A)	56	38	47	50	49	51	45	37

Dimension and Drawing



*This drawing shows dimensions that should be used as a guide only and are subject to change. Certified drawings are available on request.



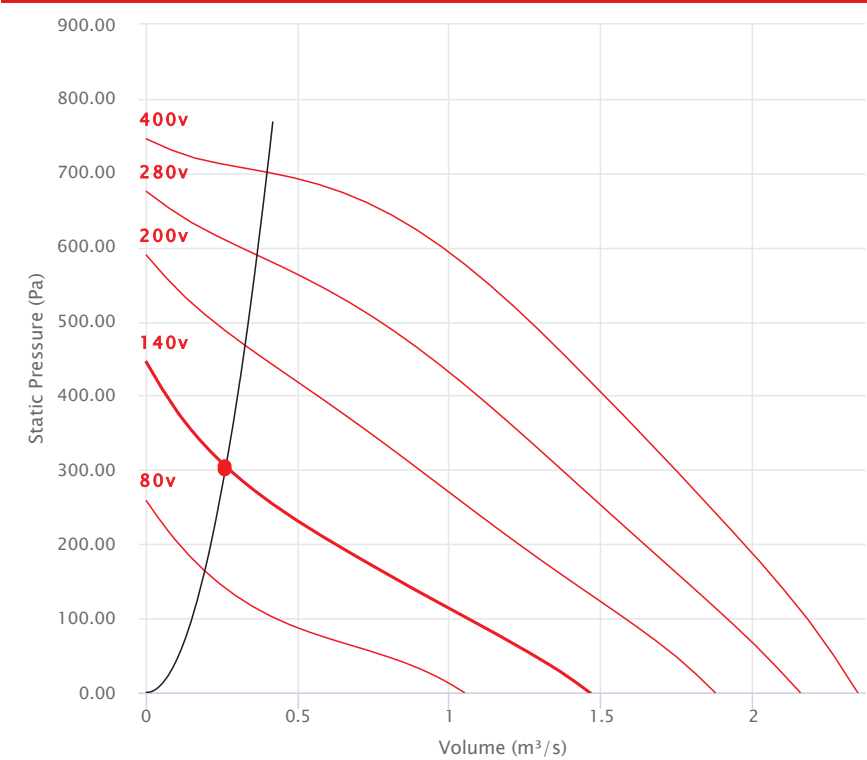
Project Name:	OLD GRANADA STUDIOS MOLLIES HOTEL		
Client:	COMPLETE VENT	Engineer:	Mark Hadfield
Quote Number:	Q 40003	Date:	04/04/2023
Item Reference:	EF 02 01	Item Quantity:	1

KRD 500/4/80/50 A Rectangular Box Fan



Rectangular centrifugal fan with backward curved impeller and swing out motor and impeller unit, for in-line installation in rectangular ducting. Casing made from galvanised steel and flanged on both ends, compact design, service friendly (cleaning) through swing out motor and impeller unit. Centrifugal, backward curved impeller made from polymer. Dynamically balanced for low noise operation. Aerodynamically optimised, intake air flow by means of inlet nozzle. Totally enclosed, 3-phase external rotor motor with thermal contacts wired to the terminal block. Speed control by use of a 5-step transformer controller or an electronic controller (stepless) as well as with a Helios frequency inverter and sinus filter on all poles Maintenance free, low-noise sealed for life ball bearings, tropical protection of windings. Mains supply via pre-assembled terminal box (IP 55).

Performance Chart



Product

Ref.No.	8643
Model Code	KRD 500/4/80/50 A
Maximum airflow temp.	60 °C
Weight	64.0 kg

Performance

Requested Duty	0.260 m³/s @ 300 Pa (Static)
Actual Duty	0.262 m³/s @ 305 Pa (Static)
Fan Nominal Speed	1360 rpm
Specific Fan Power	0.45 W/l/s
Output Power	0.148 kW

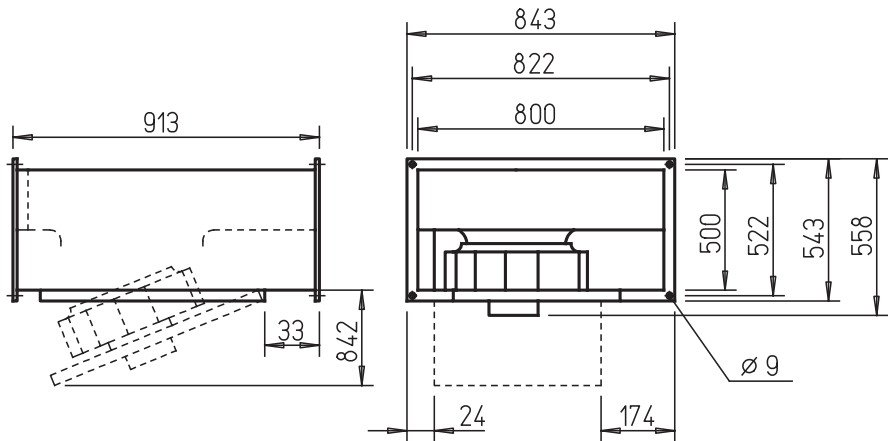
Motor

Rating	1.21 kW
Poles	4
Motor Input Power	0.119 kWh
Electrical Supply	230-400v/3Ph/50Hz
Full Load Current	2.7 / 4.7 A

Sound

Sound Pressure Level		28 dB(A) at 3m							
Spectrum	Hz	Total	125	250	500	1k	2k	4k	8k
LwA Intake	dB(A)	55	51	49	46	45	42	41	40
LwA Extract	dB(A)	62	55	57	55	54	49	46	46
LwA Breakout	dB(A)	49	48	42	38	32	24	21	22

Dimension and Drawing



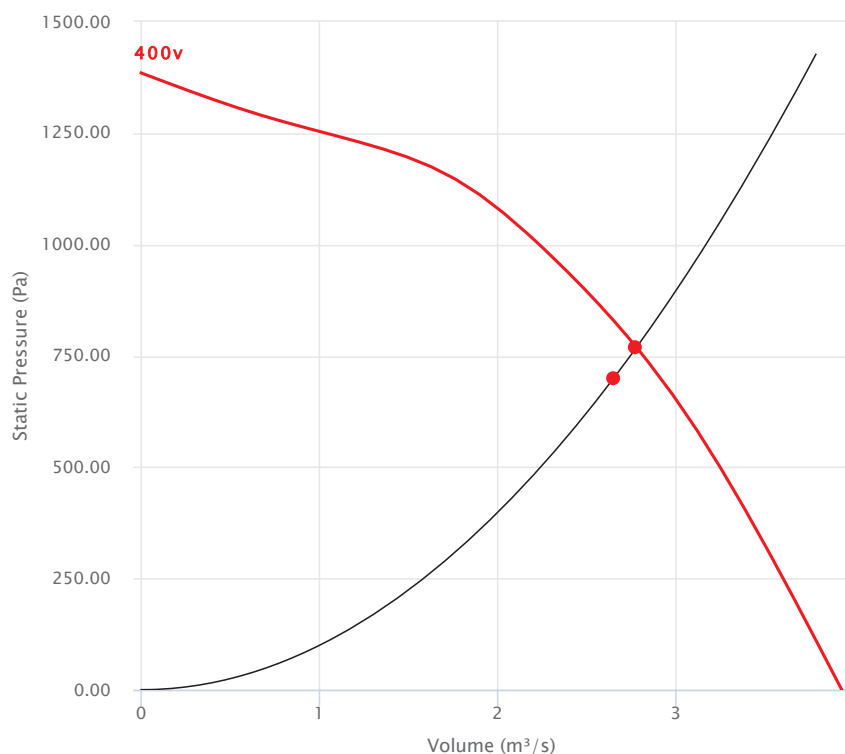
*This drawing shows dimensions that should be used as a guide only and are subject to change. Certified drawings are available on request.

GBD 630/4 T 120 (CENT) GigaBox temperatures to 120° C



Acoustical exhaust unit with supply and extract low-loss duct adapters including flexible sleeves (suitable for temperatures up to 120°C) to reduce vibration transmission. Variable applicable side panels to suit to structural conditions. Motor located outside of the air flow, therefore applicable for extraction of dirty, hot air up to max. 120°C. Supplied with condensate collector and enclosed condensation discharge as standard. Application area: Commercial kitchens and application in ventilation systems of process technology. Simple positioning by standard crane hooks. Self-supporting case framework from aluminium hollow profiles. Double skinned side panels from galvanised sheet steel with 20 cm thick temperature insulating and flame-retardant fibreglass mats. High efficiency backward centrifugal impeller, manufactured aluminium, mounted on galvanised steel support plates, direct driven. The impeller together with the external rotor motor is dynamically balanced to quality standard G 2.5 to DIN ISO 1940 T.1. Motor with closed, maintenance-free design, located outside the air flow. Control is carried out exclusively by frequency inverter, built-in thermal contacts connected to the terminal block, sealed for life low-noise ball bearings. Mains connection to the terminal box (IP54) integrated in the device.

Performance Chart



Product

Ref.No.	5779
Model Code	GBD 630/4 T 120 (CENT)
Fan Size	630 mm
Maximum airflow temp.	120 °C
Weight	105.0 kg

Performance

Requested Duty	2.65 m³/s @ 700 Pa (Static)
Actual Duty	2.78 m³/s @ 768 Pa (Static)
Fan Nominal Speed	1445 rpm
Specific Fan Power	1.16 W/l/s
Output Power	4.40 kW

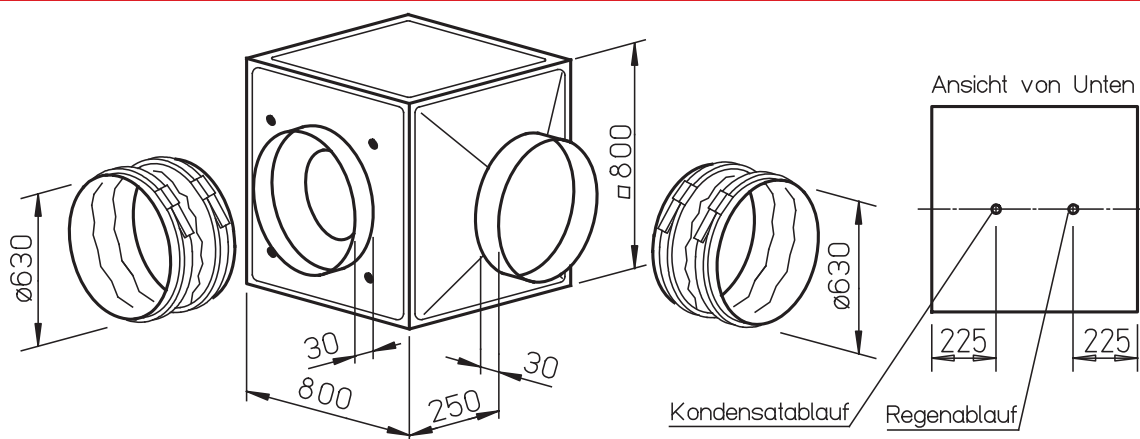
Motor

Rating	4.40 kW
Poles	4
Motor Input Power	3.44 kWh
Electrical Supply	400v/3Ph/50Hz
Full Load Current	8 A
Starting Current	48 A

Sound

Sound Pressure Level		51 dB(A) at 3m							
Spectrum	Hz	Total	125	250	500	1k	2k	4k	8k
LwA Intake	dB(A)	86	73	82	79	78	77	74	66
LwA Extract	dB(A)	89	80	81	83	83	81	76	68
LwA Breakout	dB(A)	72	65	66	64	64	64	60	54

Dimension and Drawing

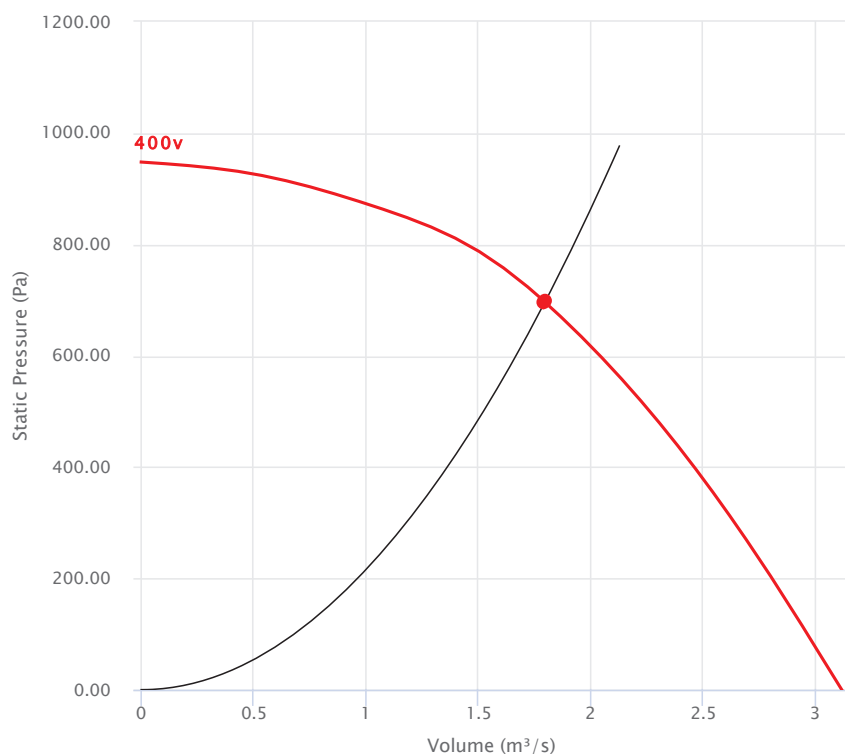


GBD 560/4/4 T 120 (CENT) GigaBox temperatures to 120° C 2 Speed



Acoustical exhaust unit with supply and extract low-loss duct adapters including flexible sleeves (suitable for temperatures up to 120°C) to reduce vibration transmission. Variable applicable side panels to suit to structural conditions. Motor located outside of the air flow, therefore applicable for extraction of dirty, hot air up to max. 120°C. Supplied with condensate collector and enclosed condensation discharge as standard. Application area: Commercial kitchens and application in ventilation systems of process technology. Simple positioning by standard crane hooks. Self-supporting case framework from aluminium hollow profiles. Double skinned side panels from galvanised sheet steel with 20 cm thick temperature insulating and flame-retardant fibreglass mats. High efficiency backward centrifugal impeller, manufactured aluminium, mounted on galvanised steel support plates, direct driven. The impeller together with the external rotor motor is dynamically balanced to quality standard G 2.5 to DIN ISO 1940 T.1. Motor with closed, maintenance-free design, located outside the air flow. Control is carried out exclusively by frequency inverter, built-in thermal contacts connected to the terminal block, sealed for life low-noise ball bearings. Mains connection to the terminal box (IP54) integrated in the device.

Performance Chart



Product

Ref.No.	5778
Model Code	GBD 560/4/4 T 120 (CENT)
Fan Size	560 mm
Maximum airflow temp.	120 °C
Weight	105.0 kg

Performance

Requested Duty	1.80 m³/s @ 700 Pa (Static)
Actual Duty	1.80 m³/s @ 696 Pa (Static)
Fan Nominal Speed	1400 rpm
Specific Fan Power	1.24 W/l/s
Output Power	2.50 kW

Motor

Rating	2.50 / 1.85 kW
Poles	4 / 4
Motor Input Power	2.22 kWh
Electrical Supply	400v/3Ph/50Hz
Full Load Current	3.2 / 6.8 A
Starting Current	8.32 / 17.68 A

Sound

Sound Pressure Level		47 dB(A) at 3m								
Spectrum	Hz	Total	125	250	500	1k	2k	4k	8k	
LwA Intake	dB(A)	82	69	78	75	74	73	70	62	
LwA Extract	dB(A)	85	76	77	79	79	77	72	64	
LwA Breakout	dB(A)	68	61	62	60	60	60	56	50	

Dimension and Drawing

