DUCT TAGS:

MAX AIR FLOW RATE THROUGH DUCT OF THIS SIZE

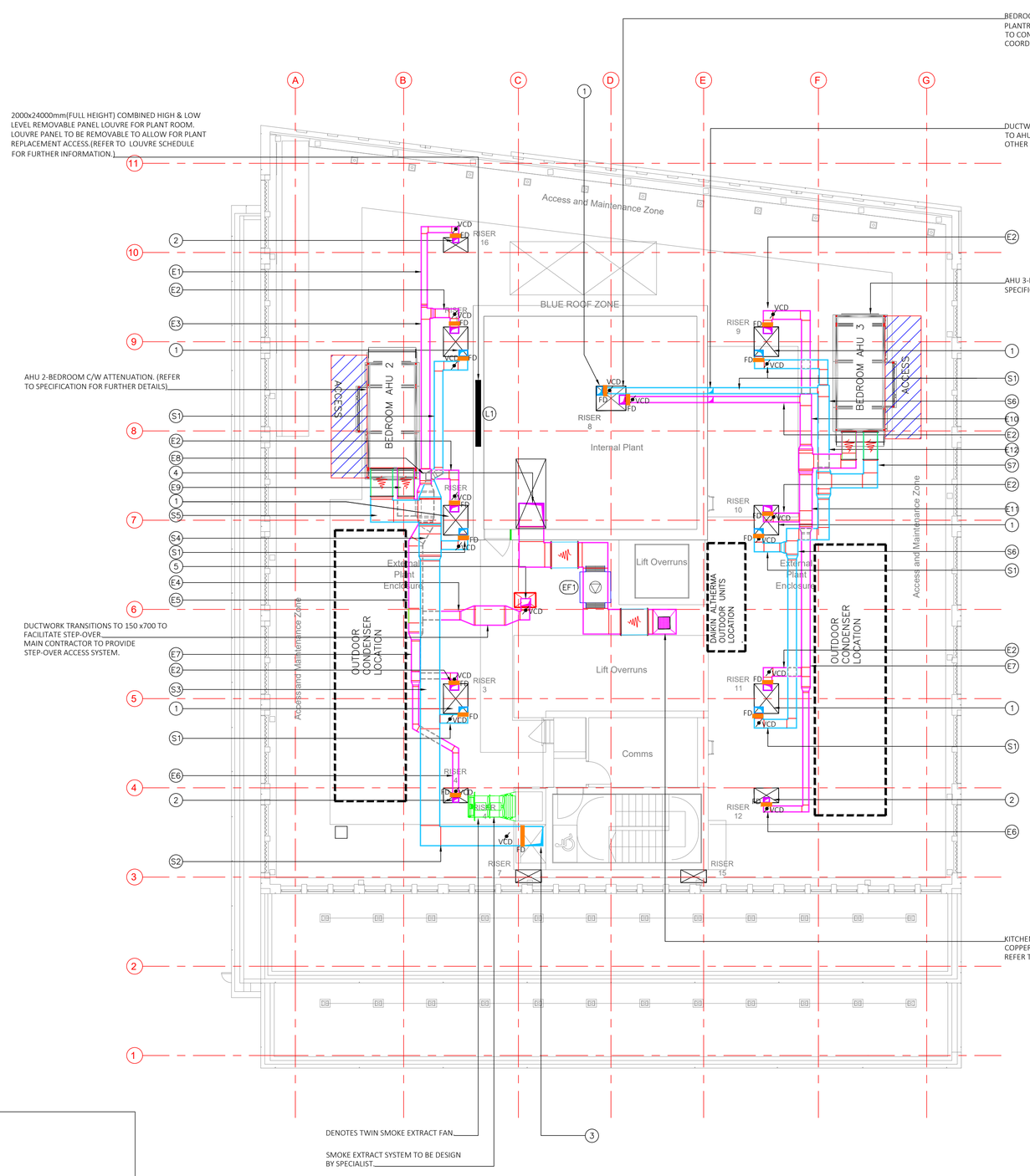
AIR VELOCITY

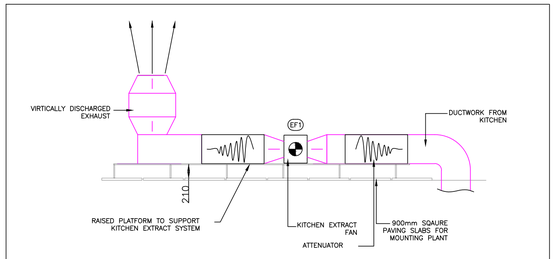
DUCT SIZE

m3/s | m/s
mm

S1	0.28	4.6	E1	0.18	4.5
	200x300			200x200	
S2	2.53	4.8	E2	0.28	4.6
	700x750			200x300	
S3	2.81	4.6	E3	0.46	4.3
	800x750			350x300	
S4	3.09	4.8	E4	0.48	4.5
	800x800			350x300	
S5	3.37	4.6	E5	0.9	4.5
	800x900			500x400	
S6	0.56	4.67	E6	0.14	4.6
	400x300			200x150	
S7	1.12	4.4	E7	0.42	4.6
	400x300			300x300	
			E8	0.74	4.6
				400x400	
			E9	1.16	4.5
				600x600	
			E10	0.56	4.67
				400x300	
			E11	0.7	4.4
				450x350	
			E12	1.26	4.5
				550x500	

DUE TO THE LONG RUN IF ELECTRICAL CABLING ALL POWER SUPPLIES FOR AHU & KITCHEN KITCHEN TO BE POWERED FROM THE MECHANICAL CONTROL PANEL LOCATED WITHIN PLANTROOM AT ROOF LEVEL.





DETAIL 1: MOUNTING OF KITCHEN EXTRACT FAN AND ATTENUATORS ON ROOF (NTS)

LEGEND (VENTILATION):

- VCD — VOLUME CONTROL DAMPER
- FD — FIRE DAMPER
- DENOTES ATTENUATOR
- DENOTES CROSS TALK ATTENUATOR
- INSULATED SUPPL DUCTWORK
- INSULATED EXTRACT DUCTWORK
- DENOTES 4 WAY BLOW DIFFUSER.
- VG?? — LINEAR SLOT DIFFUSER.(REFER TO REFERENCE TAG FOR FURTHER DETAILS)
- RG?? — RETURN AIR LINEAR SLOT DIFFUSER.(REFER TO REFERENCE TAG FOR FURTHER DETAILS)
- AH — DENOTES 600x600/ 450x450 ACCESS HATCH
- CO2 — CARBON DIOXIDE SENSOR.
- MVCD — MOTORISED VOLUME CONTROL DAMPER
- LWC — LOUVRE UNDER MAIN CONTRACT.

GENERAL NOTES (VENTILATION):

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL AND INTERIOR DESIGN DRAWINGS.

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT MEP LAYOUTS, SCHEMATICS AND SPECIFICATIONS.

DO NOT SCALE. VERIFY ALL DIMENSIONS BY SITE MEASUREMENT.

ALL VENTILATION DUCTWORK PASSING THROUGH FLOOR SLABS OR INTERNAL FIRE COMPARTMENT WALLS ARE TO BE FITTED WITH A FIRE DAMPER.

MECHANICAL CONTRACTOR TO PROVIDE COORDINATED FABRICATION INSTALLATION DRAWINGS FOR COMMENT PRIOR TO INSTALLATION.

ALL PLANT, EQUIPMENT AND ANCILLARY POSITIONS ARE INDICATIVE. FINAL LOCATIONS TO BE AGREED WITH THE CONSULTING ENGINEERS FURTHER TO REVIEW OF THE CONTRACTORS COORDINATED INSTALLATION DRAWINGS.

ALL INTERNAL DUCTWORK TO BE INSULATED IN 25mm DUCTWRAP & VAPOUR SEALED TO AVOID CONDENSATION UNLESS OTHERWISE STATED.

ALL EXTERNAL DUCTWORK TO BE INSULATED WITH 40mm FLEXIBLE GLASS FIBRE MAT WITH FOIL BACKING, JOINTS TO BE FULLY TAPED AND PVC CLAMPING BANDS FITTED AT 500mm CENTRES. DENSITY 45kg/m3, THERMAL CONDUCTIVITY 0.037. EXTERNAL DUCTWORK SHALL BE FINALLY FITTED WITH VENTURE CLAD TO ENSURE WATERPROOF FINISH, A SECTION OF GALVANISED SHEET METAL SHALL BE PLACED BETWEEN THE INSULATION AND VENTURE CLAD WITH EDGE OVERLAP TO PROVIDE MECHANICAL PROTECTION.

FIRE DAMPERS ARE TO BE COMPLETE WITH FIXING FRAMES SUITABLE FOR THE FIRE COMPARTMENT PARTITION INTO WHICH THEY ARE BEING INSTALLED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT FIRE DAMPERS ARE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS FIXING DETAILS AND TO FULLY COMPLY WITH THE FOLLOWING EXTRACTS FROM DW 145 AND BS9999 RESPECTIVELY, NO DEVIATION WILL BE DEEMED ACCEPTABLE:

- 'THE FIRE DAMPER SHOULD BE FIXED EITHER WITHIN OR DIRECTLY ADJACENT TO THE FIRE SEPARATING ELEMENT AND BE SUPPORTED INDEPENDENTLY OF THE CONNECTING DUCTWORK, I.E. IF THE DUCTWORK WERE TO BE REMOVED FROM BOTH SIDES OF THE DAMPER IT WOULD CONTINUE TO BE AN INTEGRAL MEMBER OF THE BARRIER IT PROTECTS.'

- 'THE DAMPER SHOULD BE MOUNTED IN THE WALL OR FLOOR AND SHOULD BE SUPPORTED/RESTRAINED INDEPENDENTLY OF THE DUCT WORK.'

ACCESS DOORS SHALL BE INSTALLED IN THE DUCT WORK ADJACENT FIRE DAMPERS IN ACCORDANCE WITH DW.144.

REFER TO FIRE STRATEGY DRAWINGS TO DETERMINE THE FIRE RATING OF SPECIFIC DAMPERS THROUGH EACH FIRE RATED RATED COMPARTMENT / WALL.

REFER TO VENT GRILLE AND LOUVRE SCHEDULE FOR FURTHER DETAILS.

MAIN VENTILATION DUCT SIZES SHOWN ONLY. FOR FURTHER DETAILS REFER TO DETAILED BEDROOM SERVICES LAYOUT.

ALL PLANT, GRILLE AND LOUVRE POSITIONS ARE INDICATIVE AND ARE TO BE CO-ORDINATED WITH THE ARCHITECT AND OTHER SERVICES TO ENSURE NO CLASHES PLUS INCORPORATION INTO THE ARCHITECT RCPs.

DRAWING NOTES:

1. INSULATED SUPPLY & EXTRACT DUCTWORK DTB TO SERVE DOUBLE BEDROOM RISER. FOR DUCTWORK SIZING & FLOW RATES REFER TO VENTILATION SCHEMATIC 3919/M603-1&2.
2. INSULATED EXTRACT DUCTWORK DTB TO SERVE SINGLE BEDROOM RISER. FOR DUCTWORK SIZING & FLOW RATES REFER TO VENTILATION SCHEMATIC 3919/M603-1&2.
3. 700x750 BEDROOM & CORRIDOR INSULATED SUPPLY DUCT DTB WITHIN RISER. REFER TO VENTILATION SCHEMATIC 3919/M603-1&2 FOR FURTHER INFORMATION.
4. 900 X 850 INSULATED FIRE RATED KITCHEN EXTRACT DUCT DROPS TO BELOW WITHIN RISER. CLEANING DOORS AS LISTED: ON VERTICAL DUCTWORK 2NO. PER FLOOR (ONE HIGH LEVEL & ONE LOW LEVEL). ON HORIZONTAL DUCTWORK, A CLEANING DOOR AT EVERY OFFSET & EVER 2M.
5. 350x300 INSULATED EXTRACT DUCTWORK DTB TO SERVE LINEN ROOM & CORRIDORS. REFER TO VENTILATION SCHEMATIC 3919/M603-1&2 FOR FURTHER INFORMATION.

INCLUDE ALL NECESSARY OFFSETS OF SERVICES IN CEILING VOIDS, SERVICE DUCTS AND ALL OTHER AREAS TO ACHIEVE CROSSOVERS AND CO-ORDINATION OF MECHANICAL AND ELECTRICAL SERVICES.

REV	DATE	DESCRIPTION	DR	CK
T1	22/01/20	ISSUED FOR TENDER	DML	GK

Caldwell

ARCHITECT
SIMPSON HAUGH

JOB
CHARLES STREET
MANCHESTER

DRAWING
MECHANICAL SERVICES INSTALLATION

VENTILATION

LEVEL 16

DRAWING No./REVISION
3919/M306

SCALE/PRINTED AT	DATE	DRAWN	CHECKED
1:100@A1	JAN'20	DML	GJK

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