

Technical specification, general survey
Project Agar Grove, london AHU's

Unit specification	AHU 1	
GOLD RX		
Manufactured by Swegon		
Unit size	04	
Supply air flow	0.250	m ³ /s
Total pressure drop		
Outdoor air duct		Pa
Supply air duct	150	Pa
Extract air flow	0.250	m ³ /s
Total pressure drop		
Extract air duct	150	Pa
Exhaust air duct		Pa
Design outdoor temperature, summer	30.0	°C
Lowest design outdoor air temperature	-4.0	°C
Supply air temperature, summer	22.8	°C
Required supply air temperature, winter (ERS selected)	22.0	°C
Specific fan power efficiency rating, SFPv (clean filters)	1.24	kW/(m ³ /s)



With computer-based IQlogic control system		
Painted panels with 50 mm fire retardant insulation		
Electrical connections	1-phase, 3-wire, 230 V-10/+15%, 50 Hz, 10 A	
alternative	3-phase, 5-wire, 400 V-10/+15%, 50 Hz, 10 A	
Rotary heat exchanger, RECONomic		
Temperature efficiency of supply air	86.0	%

Functional sections viewed in the direction of air flow

	Velocity m/s	Temp., winter °C	Temp., summer °C	Capacity kW	Pressure Pa
Supply air					
English	0.80				8
Silencer	0.98				6
Filter class F7	0.80				62
Rotary heat exchanger	1.50	-4.0 / 17.6	30.0 / 22.2		84
Direct-driven fan GOLD Wing+		17.6 / 18.2	22.2 / 22.8	(Electric) 0.17	321
End section, supply air					6
Silencer	3.21				5
Extract air					
Extra pressure (leakage direction)					0
Silencer	3.21				5
End section, extract air					6
Filter class F7	0.80				62
Rotary heat exchanger	1.50	21.0 / -0.6	21.0 / 28.8		84
Direct-driven fan GOLD Wing+		-0.6 / -0.1	28.8 / 29.3	(Electric) 0.18	325
Silencer	0.98				6
End section, exhaust air					6
Exhaust hood outdoor					6

Sound power level to ISO 5136 (to the ducting) and ISO 3741 (to the surroundings) respectively:
 Noise reduction for function section included to duct.

Frequency band	Hz	63	125	250	500	1k	2k	4k	8k		All	
To supply air duct		66	56	52	41	33	29	38	43	dB	49	dB(A)
To outdoor air duct		61	54	41	33	24	28	25	27	dB	41	dB(A)
To extract air duct		61	53	46	27	9	5	12	21	dB	41	dB(A)
To exhaust air duct		66	57	47	47	48	54	51	49	dB	58	dB(A)
To surroundings incl. exh. air		62	54	45	45	34	34	28	28	dB	46	dB(A)

Technical specification, general survey
Project Agar Grove, london AHU's

Unit specification	AHU 2	
GOLD RX		
Manufactured by Swegon		
Unit size	07	
Supply air flow	0.500	m ³ /s
Total pressure drop		
Outdoor air duct		Pa
Supply air duct	200	Pa
Extract air flow	0.500	m ³ /s
Total pressure drop		
Extract air duct	200	Pa
Exhaust air duct		Pa
Design outdoor temperature, summer	30.0	°C
Lowest design outdoor air temperature	-4.0	°C
Supply air temperature, summer	22.9	°C
Required supply air temperature, winter (ERS selected)	22.0	°C
Specific fan power efficiency rating, SFPv (clean filters)	1.45	kW/(m ³ /s)



With computer-based IQlogic control system

Painted panels with 50 mm fire retardant insulation

Electrical connections 1-phase, 3-wire, 230 V-10/+15%, 50 Hz, 10 A

alternative 3-phase, 5-wire, 400 V-10/+15%, 50 Hz, 10 A

Rotary heat exchanger, RECONomic

Temperature efficiency of supply air 85.5 %

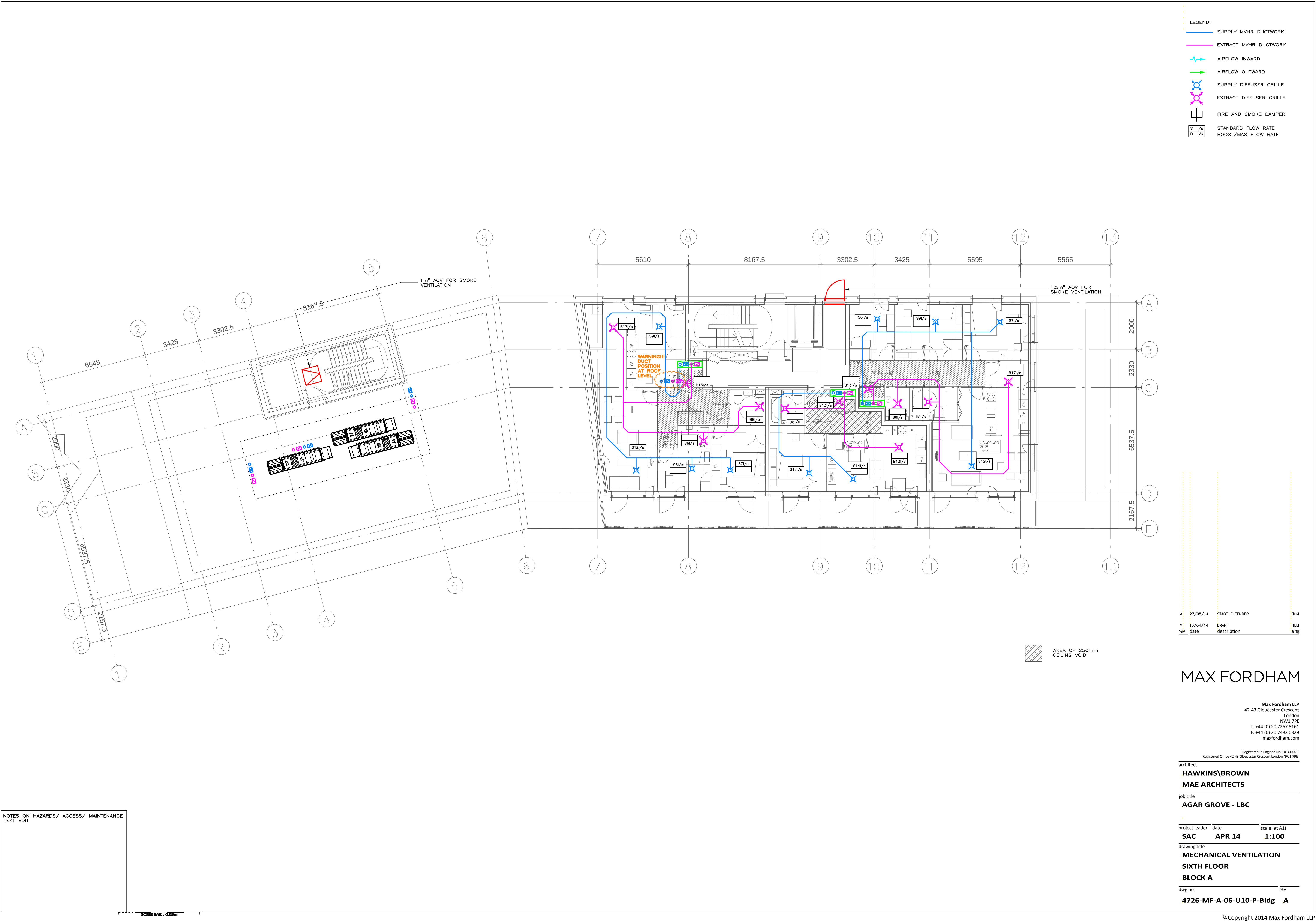
Functional sections viewed in the direction of air flow

	Velocity m/s	Temp., winter °C	Temp., summer °C	Capacity kW	Pressure Pa
Supply air					
English	1.08				12
Silencer	1.29				10
Filter class F7	1.08				68
Rotary heat exchanger	1.79	-4.0 / 17.4	30.0 / 22.3		106
Direct-driven fan GOLD Wing+		17.4 / 18.0	22.3 / 22.9	(Electric) 0.37	418
End section, supply air					13
Silencer	3.98				9
Extract air					
Extra pressure (leakage direction)					0
Silencer	3.98				9
End section, extract air					11
Filter class F7	1.08				69
Rotary heat exchanger	1.79	21.0 / -0.4	21.0 / 28.7		106
Direct-driven fan GOLD Wing+		-0.4 / 0.2	28.7 / 29.3	(Electric) 0.42	425
Silencer	1.29				10
End section, exhaust air					10
Exhaust hood outdoor					10

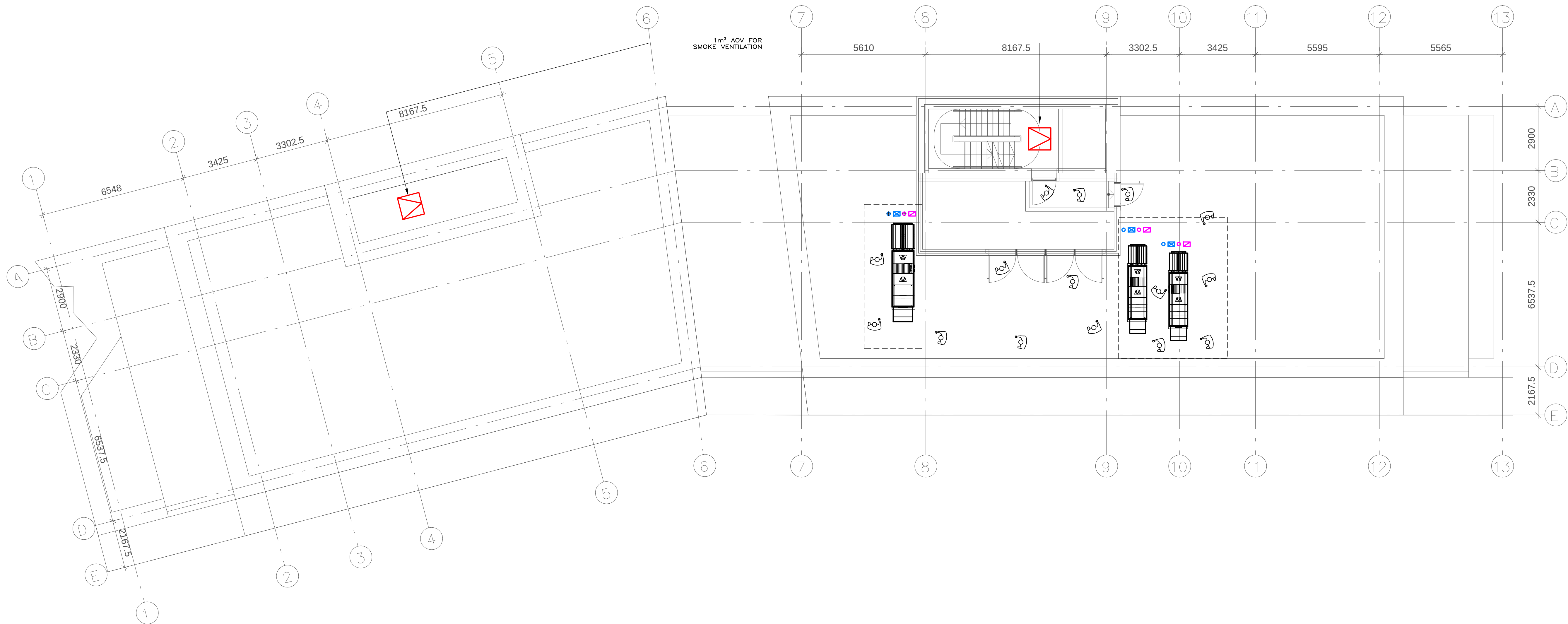
Sound power level to ISO 5136 (to the ducting) and ISO 3741 (to the surroundings) respectively:

Noise reduction for function section included to duct.

Frequency band	Hz	63	125	250	500	1k	2k	4k	8k	All	
To supply air duct	71	63	56	44	36	34	44	49	dB	54	dB(A)
To outdoor air duct	66	59	42	43	32	36	32	32	dB	47	dB(A)
To extract air duct	67	60	49	36	16	14	22	29	dB	47	dB(A)
To exhaust air duct	74	66	53	55	56	60	58	56	dB	65	dB(A)
To surroundings incl. exh. air	69	62	50	52	41	39	34	34	dB	52	dB(A)



- LEGEND:
- SUPPLY MVHR DUCTWORK
 - EXTRACT MVHR DUCTWORK
 - AIRFLOW INWARD
 - AIRFLOW OUTWARD
 - SUPPLY DIFFUSER GRILLE
 - EXTRACT DIFFUSER GRILLE
 - FIRE AND SMOKE DAMPER
 - STANDARD FLOW RATE
BOOST/MAX FLOW RATE



A	27/05/14	STAGE E TENDER	TLM
•	15/04/14	DRAFT	TLM
rev.	date	description	eng

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job title
AGAR GROVE - LBC

project leader date scale (at A1)
SAC APR 14 1:100

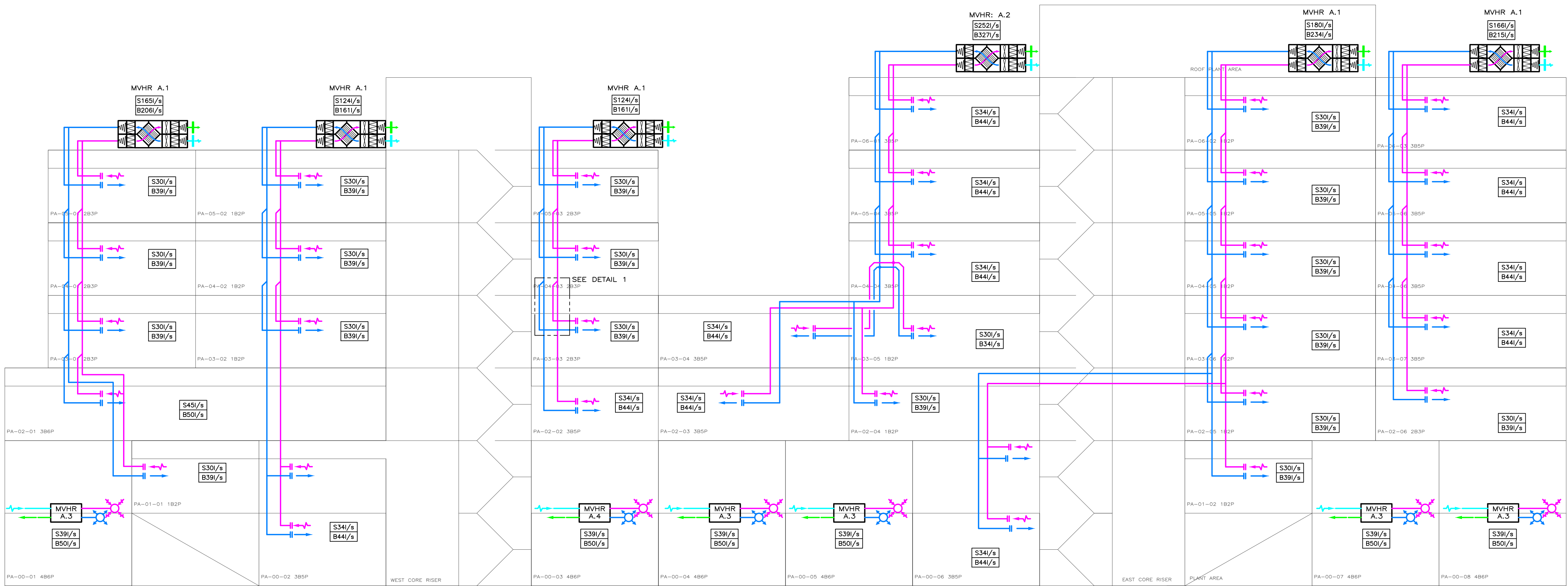
drawing title
MECHANICAL VENTILATION
SEVENTH FLOOR
BLOCK A

dwg no rev
4726-MF-A-07-U10-P-Bldg A

NOTES ON HAZARDS/ ACCESS/ MAINTENANCE
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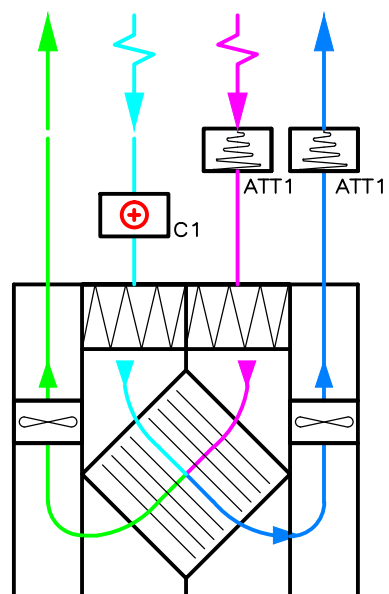
SCALE BAR : 0.05m

- LEGEND:
- SUPPLY MVHR DUCTWORK
 - EXTRACT MVHR DUCTWORK
 - AIRFLOW INWARD
 - AIRFLOW OUTWARD
 - SUPPLY DIFFUSER GRILLE
 - EXTRACT DIFFUSER GRILLE
 - FIRE AND SMOKE DAMPER
 - S I/s
B I/s
 - STANDARD FLOW RATE
BOOST/MAX FLOW RATE

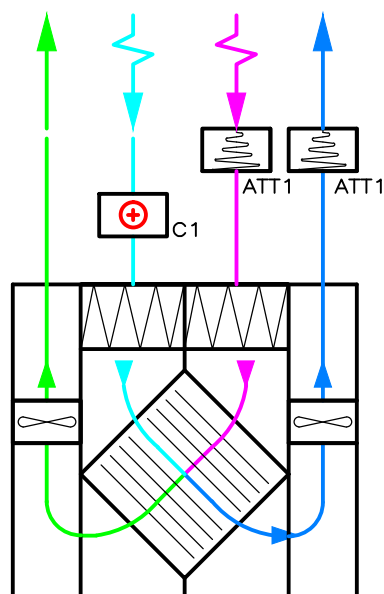


27/05/14 STAGE E TENDER TLM
rev. date description eng

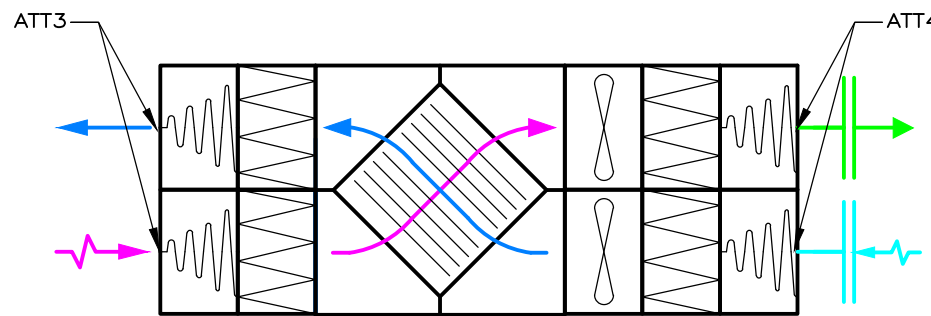
MVHR A.3
WALL MOUNTED 'RIGHT HAND UNIT'



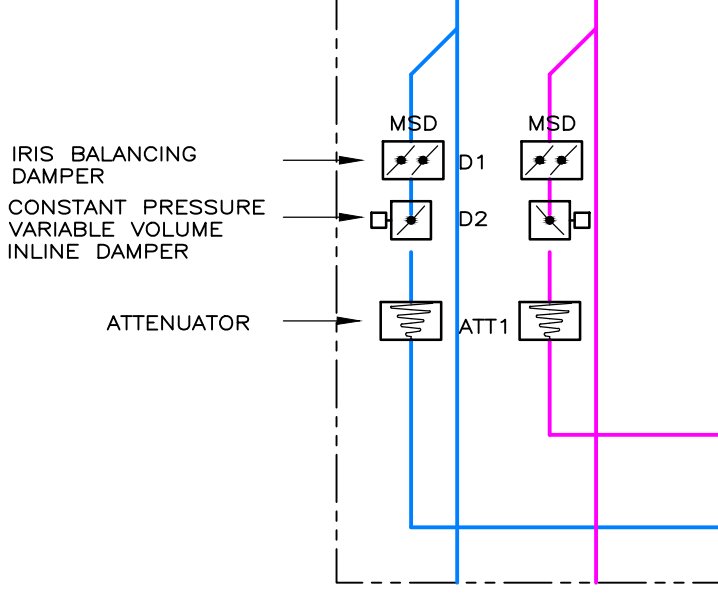
MVHR A.4
WALL MOUNTED 'LEFT HAND UNIT'



MVHR A.1, A.2
WALL MOUNTED 'LEFT HAND UNIT'



DETAIL 1
TYPICAL SHUNT DUCT SCHEMATIC



NOTES ON HAZARDS/ ACCESS/ MAINTENANCE
TEXT EDIT

SCALE BAR : 0.05m

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SAC APR 14 NTS

drawing title
**MECHANICAL VENTILATION
SCHEMATIC**

BLOCK A

dwg no rev

4726-MF-A-SC-U10-E-Bldg *