SILENCER SCHEDULE

MARK		SHAPE CONFIGURATION	DESIGN AIR VOLUME		DESIGN AIR VELOCITY		PRESSURE DROP		W		H		INSERTION LOSS (DB)								NOTES
			CFM	L/S	FPM FPM	M/S	INCH W.C.	PA	INCH	MM	INCH	MM	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
S	1	U-SHAPE	325	153	400	2.03	0.10	24.88	14	356	6	152	13	11	17	28	39	40	32	26	
S	2	U-SHAPE	179	84	400	2.03	0.10	24.88	10	254	10	254	13	11	17	28	39	40	32	26	
S	3	L-SHAPE	172	81	400	2.03	0.10	24.88	8	203	8	203	13	11	17	28	39	40	32	26	
S	4	L-SHAPE	173	82	400	2.03	0.10	24.88	8	203	8	203	13	11	17	28	39	40	32	26	
S	5	L-SHAPE	119	56	400	2.03	0.10	24.88	8	203	8	203	13	11	17	28	39	40	32	26	
S	6	L-SHAPE	63	30	400	2.03	0.10	24.88	6	152	6	152	13	11	17	28	39	40	32	26	
S	7	L-SHAPE	63	30	400	2.03	0.10	24.88	6	152	6	152	13	11	17	28	39	40	32	26	
S	8	L-SHAPE	63	30	400	2.03	0.10	24.88	6	152	6	152	13	11	17	28	39	40	32	26	
S	9	L-SHAPE	63	30	400	2.03	0.10	24.88	6	152	6	152	13	11	17	28	39	40	32	26	
S	10	L-SHAPE	63	30	400	2.03	0.10	24.88	6	152	6	152	13	11	17	28	39	40	32	26	
S	11	L-SHAPE	63	30	400	2.03	0.10	24.88	6	152	6	152	13	11	17	28	39	40	32	26	
S	12	L-SHAPE	63	30	400	2.03	0.10	24.88	6	152	6	152	13	11	17	28	39	40	32	26	
S	13	L-SHAPE	63	30	400	2.03	0.10	24.88	6	152	6	152	13	11	17	28	39	40	32	26	
S	14	L-SHAPE	63	30	400	2.03	0.10	24.88	6	152	6	152	13	11	17	28	39	40	32	26	
S	15	U-SHAPE	75	35	400	2.03	0.10	24.88	8	203	8	203	13	11	17	28	39	40	32	26	
S	16	U-SHAPE	75	35	400	2.03	0.10	24.88	8	203	8	203	13	11	17	28	39	40	32	26	
S	17	U-SHAPE	75	35	400	2.03	0.10	24.88	8	203	8	203	13	11	17	28	39	40	32	26	
S	18	L-SHAPE	50	24	400	2.03	0.10	24.88	6	152	6	152	13	11	17	28	39	40	32	26	
S	19	U-SHAPE	50	24	400	2.03	0.10	24.88	6	152	6	152	13	11	17	28	39	40	32	26	

DUCT MOUNTED CONTROL DAMPER SCHEDULE

MARK		WIDTH/DIA		HEIGHT		DESIGN AIRFLOW		THERMALLY INSULATED	ACTUATOR TYPE	OPERATION	RESPONSE TIME SEC	CONTROLLED BY	COMMENTS
		INCH	MM	INCH	MM	CFM	L/S						
MD	1	24	610	30	762	1800	850	Yes	24V	Two Position	90s	DDC	
MD	2	20	508	20	508	1800	850	Yes	24V	Two Position	90s	DDC	
MD	3	18	457	18	457	950	448	Yes	24V	Two Position	90s	DDC	
MD	4	24	610	30	762	950	448	Yes	24V	Two Position	90s	DDC	
MD	5	18	457	18	457	1550	732	Yes	24V	Two Position	90s	DDC	
MD	6	24	610	30	762	1550	732	Yes	24V	Two Position	90s	DDC	
MD	7	24	610	24	610	4000	1888	Yes	24V	Two Position	90s	DDC	
MD	8	16	406	16	406	2000	944	Yes	24V	Two Position	90s	DDC	1
MD	9	24	610	30	762	2000	944	Yes	24V	Two Position	90s	DDC	

1. MD-8 TO BE ORDERED AS PART OF EF-4 ASSEMBLY, FACTORY INSTALLED IN THE FAN WALL HOUSING. REFER TO FAN SCHEDULE.

DIFFUSER & GRILLES SCHEDULE

MARK		DIFFUSER/GRILLE TYPE	NOMINAL DUCT SIZE				MODULE SIZE				MOUNTING SURFACE	DAMPER	COLOUR	NOTES
			WIDTH / DIAMETER		HEIGHT		WIDTH		HEIGHT					
			INCH	MM	INCH	MM	INCH	MM	INCH	MM				
E	1	EGG CRATE GRILLE	6	150	6	150	6	150	6	150	T-BAR	NONE	WHITE	
E	2	EGG CRATE GRILLE	8	200	8	200	8	200	8	200	DRYWALL	NONE	WHITE	
E	3	EGG CRATE GRILLE	16	400	12	300	16	400	12	300	CONCRETE	NONE	WHITE	
E	4	EGG CRATE GRILLE	6	150	6	150	6	150	6	150	DUCT	NONE	WHITE	
E	5	EGG CRATE GRILLE	10	250	10	250	10	250	10	250	DRYWALL	NONE	WHITE	
E	6	EGG CRATE GRILLE	6	150	6	150	6	150	6	150	DRYWALL	NONE	WHITE	
R	1	LINEAR BAR GRILLE	24	600	6	150	25	650	7	175	FLOOR	NONE	MILLED	
R	2	EGG CRATE GRILLE	6	150	6	150	6	150	6	150	T-BAR	NONE	WHITE	
R	3	EGG CRATE GRILLE	24	600	6	150	24	600	6	150	T-BAR	NONE	WHITE	
R	5	EGG CRATE GRILLE	48	1225	12	300	48	1225	12	300	T-BAR	NONE	WHITE	
R	6	HEAVY DUTY LOUVERED GRILLE - 19MM SPACING	36	925	20	500	36	925	20	500	CONCRETE	NONE	WHITE	
R	7	LOUVERED GRILLE	16	400	8	200	16	400	8	200	DRYWALL	NONE	MILLED	
R	8	LOUVERED GRILLE	24	600	12	300	24	600	12	300	DRYWALL	NONE	MILLED	
R	9	LINEAR BAR GRILLE	16	400	6	150	17	425	7	175	FLOOR	NONE	MILLED	
S	1	HIGH CAPACITY DRUM LOUVER - SPLIT BLADE	30	750	10	250	30	750	10	250	DUCT	NONE	WHITE	
S	2	SQUARE CONE DIFFUSER	6	150			24	600	24	600	T-BAR	NONE	WHITE	
S	3	SQUARE CONE DIFFUSER	12	300			24	600	24	600	T-BAR	NONE	WHITE	
S	5	LOUVRED GRILLE	12	300	12	300	12	300	12	300	DRYWALL	NONE	WHITE	
S	9	SQUARE CONE DIFFUSER	6	150			12	300	12	300	T-BAR	NONE	WHITE	
S	10	EGG CRATE GRILLE	16	400	12	300	16	400	12	300	CONCRETE	NONE	WHITE	
S	12	EGG CRATE GRILLE	6	150	6	150	6	150	6	150	CONCRETE	NONE	WHITE	
S	13	EGG CRATE GRILLE	6	150	6	150	6	150	6	150	DUCT	NONE	WHITE	
S	14	LOUVERED GRILLE	10	250	10	250	10	250	10	250	DRYWALL	NONE	MILLED	
S	15	LOUVERED GRILLE	10	250	6	150	10	250	6	150	DRYWALL	NONE	MILLED	
S	16	EGG CRATE GRILLE	6	150	6	150	6	150	6	150	DRYWALL	NONE	WHITE	
S	17	LINEAR FLOOR GRILLE	16	400	6	150	16	400	6	150	FLOOR	NONE	MILLED	
S	18	LOUVERED GRILLE	8	200	8	200	8	200	8	200	DRYWALL	NONE	WHITE	
S	19	ROUND CONE DIFFUSER	14	350	0	0	32	800	32	800	DUCT	NONE	WHITE	
T	1	EGG CRATE GRILLE	6	150	6	150	6	150	6	150	T-BAR	NONE	WHITE	
T	2	EGG CRATE GRILLE	8	200	8	200	8	200	8	200	DUCT	NONE	WHITE	

VENTILATION SCHEDULE - ASHRAE 62.1 - 2016

AIR SYSTEM	ZONE TYPE	SUPPLY AIR (Vpz)	AREA	ZONE POPULATION (Pz)	OUTDOOR AIR RATE		AIR DISTRIBUTION EFFECTIVENESS (Ez)	SPACE OUTDOOR AIR (Voz)
					PER AREA (Ra)	PER PERSON (Rp)		
ERV-1	General - Corridors _ Ashrae 62.1_16	393 CFM	1613 SF	8.260072	0.06 CFM/SF	0 CFM	0.8	97
ERV-1	Office Buildings - Occupiable storage rooms for dry materials _ Ashrae 62.1_16	143 CFM	390 SF	1.291524	0.06 CFM/SF	5 CFM	0.8	30
ERV-1	Educational Facilities - Lecture classroom _ Ashrae 62.1_16	2624 CFM	844 SF	20	0.06 CFM/SF	8 CFM	0.8	201
ERV-1	Office Buildings - Office space - Enclosed _ Ashrae 62.1_90.1_10	1023 CFM	635 SF	7	0.06 CFM/SF	5 CFM	0.8	73
ERV-1	Hotels, Motels , Resorts, Dormitories - Barracks sleeping areas _ Ashrae 62.1_16	785 CFM	705 SF	7.834195	0.06 CFM/SF	5 CFM	0.8	81
ERV-1	Sports and Entertainment - Health club/weight rooms _ Ashrae 62.1_16	1249 CFM	740 SF	6	0.06 CFM/SF	20 CFM	0.8	164
ERV-1	Food and Beverage Service - Kitchen (cooking) _ Ashrae 62.1_16	316 CFM	862 SF	14	0.12 CFM/SF	8 CFM	0.8	208
ERV-1	Hotels, Motels , Resorts, Dormitories - Bedroom/living room _ Ashrae 62.1_16	748 CFM	822 SF	11	0.06 CFM/SF	5 CFM	0.8	104
ERV-1								
ERV-2	Office Buildings - Occupiable storage rooms for dry materials _ Ashrae 62.1_16	450 CFM	645 SF	2.621385	0.06 CFM/SF	5 CFM	0.8	52
ERV-2	Parking garage - Parking garages _ Ashrae 62.1_16 - TABLE 6.5	352 CFM	1011 SF	3.14801	0.06 CFM/SF	5 CFM	0.8	76
ERV-2								
F-3	Office Buildings - Occupiable storage rooms for dry materials _ Ashrae 62.1_16	2473 CFM	666 SF	2.408084	0.06 CFM/SF	5 CFM	0.8	52
F-3								

SYSTEM SUMMARY:

ERV-1: TOTAL OUTDOOR AIR SUPPLY REQURIED (Vot) --> 1221 CFM (576 L/S)
TOTAL OUTDOOR AIR SUPPLY PROVIDED --> 1600 CFM (755 L/S)
TOTAL EXHAUST AIR REQURIED --> 308 CFM (145 L/S)
TOTAL EXHAUST AIR PROVIDED --> 1600 CFM (755 L/S)

ERV-2: TOTAL OUTDOOR AIR SUPPLY REQURIED (Vot) --> 0 CFM (L/S)
TOTAL OUTDOOR AIR SUPPLY PROVIDED --> 900 CFM (425 L/S)
TOTAL EXHAUST AIR REQURIED --> 752 CFM (355 L/S)
TOTAL EXHAUST AIR PROVIDED --> 950 CFM (448 L/S)

DUCT MOUNTED HYDRONIC COIL SCHEDULE

MARK		SERVES	HEATING CAPACITY		COOLING CAPACITY					AIR TEMPERATURES										FLUID TEMPERATURES				MAX DIMENSIONS MM		MAX VELOCITY		MEDIUM	SUPPLY AIRFLOW		AIR PRESSURE DROP		FLUID FLOW		FLUID PRESSURE DROP		NOTES
					TOTAL			SENSIBLE		EDB		EWB		LDB		LWB		EWT		LWT																	
			BTUH	KW	BTUH	KW	TONS	BTUH	KW	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	HEIGHT	WIDTH	FPM	M/S		CFM	L/S	INCH W.C.	PA	GPM	L/S	ft-H2O	kPa	
HCC	1	ERV-1 SUPPLY	30000.0	8.8	78400	23	7	40100.0	12	78.4	25.8	69.9	21.1	55.0	12.8	54.5	12.5	45	7	55	13	864	610	400	2.03	WATER	1600	755	0.25	62	15	1	10.1	30	

GOOSE NECK SCHEDULE

MARK		THROAT LENGTH		THROAT WIDTH		DESCRIPTION
		INCH	MM	INCH	MM	
GN	1	4"	102	4"	100	GOOSENECK FOR LAUNDRY DRYER EXHAUST.

LINEAR SLOT DIFFUSER SCHEDULE

MARK		DIFFUSER/GRILLE TYPE	NOMINAL DUCT SIZE DIAMETER		SLOT WIDTH		SLOT QUANTITY	TOTAL DIFFUSER LENGTH		MOUNTING SURFACE	FRAME TYPE	DIFFUSER PLENUM	COLOUR
			INCH	MM	INCH	MM		FEET	MM				
S	6	LINEAR SLOT DIFFUSER	6	150	1.5	38	2	7	2134	DRYWALL	FLANGE FRAME CONCEALED MOUNTING	SDB, INSULATED, WITH INTEGRATED BALANCING DAMPER	MILLED
S	7	LINEAR SLOT DIFFUSER	6	150	1	25	1	15	4572	DRYWALL	FLANGE FRAME CONCEALED MOUNTING	SDB, INSULATED, WITH INTEGRATED BALANCING DAMPER	MILLED
S	8	LINEAR SLOT DIFFUSER	6	150	1	25	1	20	6096	DRYWALL	FLANGE FRAME CONCEALED MOUNTING	SDB, INSULATED, WITH INTEGRATED BALANCING DAMPER	MILLED

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Member
23527
2023-02-03
REGISTERED PROFESSIONAL ENGINEER

Project
WFPS STATION 9
1083 AUTUMNWOOD DRIVE

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MECHANICAL SCHEDULES

Project No. 22028
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