MOTORIZED DAMPER SCHEDULE

DESIGNATION	MD-1	MD-2A, MD-2B	MD-3	MD-4	MD-5	MD-6	MD-7	MD-8
SERVICE	INTAKE	EXHAUST	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE	OUTSIDE AIR
DAMPER WIDTH	54"	48"	42"	42"	42"	42"	40"	40"
DAMPER HEIGHT	54"	48"	42"	42"	42"	42"	40"	40"
CFM MAX.	10,000	10,000	5,000	5,000	5,000	5,000	10,000	10,000
FACE VELOCITY (FT/MIN)	493	625	410	410	410	410	900	900
PRESSURE LOSS ACROSS DAMPER (WC)	0.08	0.09	0.04	0.04	0.04	0.04	.19"	0.03
BLADE ACTION	PARALLEL	PARALLEL	PARALLEL	PARALLEL	PARALLEL	PARALLEL	OPPOSED	OPPOSED
DAMPER RESPONSE	POWER OPEN-FAIL CLOSED	POWER OPEN-FAIL CLOSED	POWER OPEN-FAIL CLOSED	POWER OPEN-FAIL CLOSED	POWER OPEN-FAIL CLOSED	POWER OPEN-FAIL CLOSED	MODULATING -FAIL OPEN	MODULATING-FAIL CLOSED
FRAME AND BLADE MATERIAL	EXTRUDED ALUMINUM	EXTRUDED ALUMINUM	EXTRUDED ALUMINUM	EXTRUDED ALUMINUM	EXTRUDED ALUMINUM	EXTRUDED ALUMINUM	EXTRUDED ALUMINUM	EXTRUDED ALUMINUM
LINKAGE	CONCEALED IN FRAME	CONCEALED IN FRAME	CONCEALED IN FRAME	CONCEALED IN FRAME	CONCEALED IN FRAME	CONCEALED IN FRAME	CONCEALED IN FRAME	CONCEALED IN FRAME
BLADES	W/THERMAL ISOLATION BREAKS	W/THERMAL ISOLATION BREAKS	W/THERMAL ISOLATION BREAKS	W/THERMAL ISOLATION BREAKS	W/THERMAL ISOLATION BREAKS	W/THERMAL ISOLATION BREAKS	W/THERMAL ISOLATION BREAKS	W/THERMAL ISOLATION BREAKS
FRAME	THERMALLY ISOLATED	THERMALLY ISOLATED	THERMALLY ISOLATED	THERMALLY ISOLATED	THERMALLY ISOLATED	THERMALLY ISOLATED	THERMALLY ISOLATED	THERMALLY ISOLATED
VOLTAGE	120V	120V	120V	120V	120V	120V	120V	120V
REQUIRED TORQUE FOR DAMPER OPERATION	200 IN-LBS	160 IN-LBS	120 IN-LBS	120 IN-LBS	120 IN-LBS	120 IN-LBS	120 IN-LBS	120 IN-LBS
LOCATION	OPERATING GALLERY (SF-2)	OPEN AREA (EF-2A, EF-2B)	OPEN AREA (LV-3)	OPEN AREA (LV-4)	HALLWAY LOWER (LV-5)	HALLWAY UPPER (LV-6)	COMPRESSOR-HVAC (SF-1)	COMPRESSOR-HVAC (SF-1)
MODEL	TED50XT	TED50XT	TED50XT	TED50XT	TED50XT	TED50XT	TED50XT	TED50XT
MANUFACTURER	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN
NOTES:	2,3	2,3	1,2,3	1,2,3	1,2,3	1,2,3	2,3	2,3

NOTES:
1. PROVIDE ACTUATOR EQUIVALENT TO A BELIMO NF SERIES WITH 90 INCH LBS OF TORQUE.
2. FRAME TYPE AND FINAL SIZE TO BE COORDINATED WITH DUCT CONSTRUCTION.
3. ACTUATOR TO BE OUTSIDE OF AIR STREAM

AIR COOLED CONDENSING UNIT

DESIGNATION	CU-1	CU-2A,2B	CU-3	CU-4	CU-5	CU-6
CAPACITY (NOMINAL TONS)	35	18	21	40	2	1.5
COMPRESSOR TYPE	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
QUANTITY	4	4	4	4	1	1
NUMBER OF CIRCUITS	2	2	2	2	1	1
CONDENSER FAN QUANTITY	4	4	4	4	1	1
VOLTAGE	460/3	460/3	460/3	460/3	460/3	460/3
MAXIMUM OVERCURRENT	100	50	70	100	15	15
UNIT FLA	80	38	50	80	6	6
MCA	84	42	55	84	8	8
REFRIGERANT	410A	410A	410A	410A	410A	410A
EER @ OPERATING CONDITIONS	13	11.6	11.3	13	11.2	11.2
LENGTH	125	91"	95	125	65	65
WIDTH	85	65"	65	85	30	30
HEIGHT	70	62"	65	70	60	60
WEIGHT (LBS)	2446	1400	1472	2446	358	358
AMBIENT AIR TEMP DEG F DB/WB	93/74	93/74	93/74	93/74	93/74	93/74
LIQUID LINE SIZE	1		0.75	1	0.5"	0.5"
SUCTION LINE SIZE	1.75		1.5	1.75	1"	1"
AREA\SYSTEM SERVED	AHU-1	AHU-2A,2B	AHU-3	AHU-4	AHU-5	AHU-6
MODEL	CFA	CFA	CFA	CFA	CFA	CFA
MANUFACTURER	AAON	AAON	AAON	AAON	AAON	AAON

NOTES
1. REFER TO AHU SCHEDULE FOR ACTUAL CAPACITIES.
2. PROVIDE WITH HIGH AND LOW HEAD PRESSURE CONTROLLER, LOW AMBIENT START KIT, CYCLE PROTECTOR, AND FILTER DRYER.

FAN SCHEDULE

DESIGNATION	MC-1A,1B,1C,1D	MC-2A,2B,2C	MC-3A,3B	EF-1	EF-2A,2B	EF-3	EF-4	EF-5	EF-6	EF-7	EF-8	CF-1	CF-2A,2B,2C	CF-3A,3B,3C	SF-1	SF-2
CFM	9,350	9,350	9,350	7,400	10,000	4,300	75	175	240	310	100	182,000	46,000	46,000	10,200	11,000
ESP IN WG	NA	NA	NA	11"	.25"	1"	.5"	.5"	.5"	.5"	.5"	N/A	N/A	N/A	1	1
RPM	1,725	1,725	1,725	1449	860	1120	921	1487	1430	1380	921	73	292	292	947	960
FAN TYPE	MAN COOLER	MAN COOLER	MAN COOLER	UTILITY SET	WALL PROPELLER	WALL CENTRIFUGAL	CEILING CABINET FAN	WALL CENTRIFUGAL	WALL CENTRIFUGAL	WALL CENTRIFUGAL	CEILING CABINET FAN	CEILING FAN	CEILING FAN	CEILING FAN	INLINE CENTRIFUGAL	WALL PROPELLER
DRIVE TYPE	DIRECT	DIRECT	DIRECT	BELT	DIRECT	BELT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	BELT	BELT
WHEEL DIAMETER	30"	30"	30"	33"	36"	19"	--	9"	9"	9"	--	16'	60"	60"	30"	42"
WHEEL TYPE	PROPELLER	PROPELLER	PROPELLER	RADIAL	PROPELLER	CENTRIFUGAL	STANDARD	CENTRIFUGAL	CENTRIFUGAL	WALL CENTRIFUGAL	STANDARD	CEILING	CEILING	CEILING	CENTRIFUGAL	PROPELLER
INLET SIZE	NA	NA	NA	19" DIA	48"x48"	20"x20"	STANDARD	10"x10"	10"x10"	10"x10"	STANDARD	N/A	N/A	N/A	40"x40"	54"x54"
MOTOR HP	.33	.33	.33	25	1.5	1.5	36 WATTS	0.125	0.125	0.125	36 WATTS	1.5	101 WATTS	101 WATTS	5	5
MOTOR VOLTAGE/PHASE	115	115	115	460/3	460/3	460/3	120/1	120/1	120/1	120/1	120/1	460/3	110/1	110/1	460/3	460/3
LENGTH	14"	14"	14"	55"	32"	36"	15"	21" DIAMETER	21" DIAMETER	21" DIAMETER	15"	16' DIA	60" DIAMETER	60" DIAMETER	42	30"
WIDTH	33" DIA	33" DIA	33" DIA	34"	48"	40" DIA	15"	-NA-	-NA-	-NA-	15"	N/A	N/A	N/A	44	54"
HEIGHT	NA	NA	NA	63"	48"	--	12"	16"	16"	16"	12"	48"	16" DOWNROD	36" DOWNROD	44	54"
WEIGHT LBS	44	44	44	1200	275	158	15	35	35	35	15	275	25	25	548	379
MODEL	30CAC-IHPWD	30CAC-IHPWD	30CAC-IHPWD	SERIES 20	36EW	195 ACWB	GC-166	90W15DH	90W15DH	100W15DH	GC-166	HVLS	CP60 HPWP	CP60 HPWP	300SQN	42EW
MANUFACTURER	COOK	COOK	COOK	NEW YORK BLOWER	COOK	COOK	COOK	COOK	COOK	COOK	COOK	RUPP	CANARM	CANARM	COOK	COOK
LOCATION SERVED	CLEARWELL	CIRCULATION	COMPRESSOR / HVAC ROOM	BELT PRESS EXH	CIRCULATION	CHEM DIST. ROOM	RESTROOM	FIRE RISER	HVAC ROOM	CHEMICAL HOOD	SOILED GEAR	CIRCULATION	OPERATING GALLERY	OPERATING GALLERY	COMPRESSOR / HVAC ROOM	CLEARWELL
NOTES:	3,12	3,12	3,12	11	2	1	5,7	6,7,8	6,7,8	8,9	5,7	4	10	10	1	1,2

NOTES:
1. PROVIDE WITH AUTO BELT TENSIONER.
2. PROVIDE WITH FAN SIDE INLET SCREEN
3. AIR VELOCITY AT 40' THROW SHALL BE A MINIMUM OF 100 FPM.
4. HORIZONTAL AIR VELOCITY SHALL BE 42 FPM AT 4' ABOVE FINISHED FLOOR MEASURED 70' FROM CENTERLINE OF FAN WHEN FAN IS INSTALLED AT 20' ABOVE FINISHED FLOOR. FAN SHALL BE DOWNFLOW.
5. FURNISH WITH ALUMINUM FACE GRILLE AND WALL CAP WITH ALUMINUM BACKDRAFT DAMPER.
6. FURNISH WITH AN INDUSTRIAL WALL MOUNTED LINE VOLTAGE THERMOSTAT EQUIVALENT TO A CHROMOLOX WCRT.
7. FURNISH WITH ALUMINUM BACKDRAFT DAMPER.
8. FURNISH WITH PRE-WIRED FAN SPEED CONTROLLER.
9. FURNISH WITH HERESITE COATING ON FAN.
10. FURNISH WITH A FRMC5 CEILING FAN CONTROLLER CAPABLE OF CONTROLLING A MINIMUM OF 3 FANS. FANS TO BE UPFLOW RUN ON HIGH SPEED DURING WINTER.
11. ALL PORTIONS OF THE FAN IN CONTACT WITH THE AIR STREAM SHALL BE CONSTRUCTED OF TYPE 304 STAINLESS STEEL.
12. PROVIDE WITH A WALL OR BEAM/COLUMN MOUNT AS APPROPRIATE.

SUPPLY GRILLE SCHEDULE

DESIGNATION	SG-1	SG-2	SG-3	SG-4	SG-5
FACE/MODULE SIZE	24x12	18x12	24x16	50x10	30x16
TYPE	DOUBLE DEFL	DOUBLE DEFL	DOUBLE DEFL	DRUM LOUVER	DOUBLE DEFL
BLADE SPACING	3/4"	3/4"	3/4"	5"	3/4"
DEFLECTION	22.5°	22.5°	22.5°	0°	22.5°
CFM FOR NC RATING	1092	945	1476	1433	1866
NC LEVEL	29	28	26	16	27
MATERIAL OF CONST	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM
MODEL	S300FL	300FL	300FL	DL	300FL
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS

NOTES:
1. CONTRACTOR SHALL COORDINATE FRAME TYPE WITH BUILDING CONSTRUCTION.
2. MAXIMUM PRESSURE DROP THRU GRILLE SHALL BE LESS THAN 0.08" WC AT THE CFM FOR NC RATING

WALL AIR CONDITIONING UNIT SCHEDULE

	DESIGNATION	WAC-1,2,3,4,5,6
FAN	CFM MAX	1,900
FAN	CFM MIN	1,900
FAN	CFM OA MINIMUM	0
FAN	CFM OA MAXIMUM	800
FAN	ESP IN WG	.25"
FAN	RPM	1,035
ELEC	MAX EXTERNAL FUSE	25
ELEC	MIN CIRCUIT AMPACITY	18
ELEC	VOLTAGE	460/3
COOL/HEAT	MBH SENS	49.0
COOL/HEAT	MBH TOTAL	78.9
COOL/HEAT	EER RATING	10.0
COOL/HEAT	EAT DEG F DB/WB	80/67
COOL/HEAT	LAT DEG F DB	60
COOL/HEAT	CONDENSER TEMP	95
COOL/HEAT	REFRIGERANT	R-410
COOL/HEAT	ELECTRIC STRIP HEAT	9.0 KW
	DEPTH	23"
	HEIGHT	93"
	WIDTH	42"
	OPERATING WEIGHT	700 LBS
	FILTERS	2" PLEATED
	RETURN AIR OPENING SIZE	30"W x 16"H
	SUPPLY AIR OPENING SIZE	30"W x 10"H
	LOCATION	HEADWORKS ELEC ROOM
	MODEL	W72XXPC
	MANUFACTURER	BARD

NOTES:
1. PROVIDE 100% OA ECONOMISER AND FACTORY MATCHING WALL CURB.
2. PROVIDE DUCT TRANSITION FROM GRILLES TO HVAC UNIT.
3. INSTALL PER FACTORY INSTRUCTION. COORDINATE
WITH OTHER TRADES FOR WALL PENETRATIONS.
4. PROVIDE WITH FACTORY MASTER CONTROLLER.
5. PROVIDE WITH SINGLE POINT ELECTRICAL CONNECTION FOR EACH UNIT AND FACTORY DISCONNECT.
6. ECONOMIZER SECTIONS SHALL BE CAPABLE OF RELIEVING SAME AMOUNT OF OUTSIDE AIR THAT IS DRAWN INTO UNIT.

LOUVER SCHEDULE

DESIGNATION	LV-1	LV-2A	LV-2B	LV-3	LV-4	LV-5	LV-6	LV-7	LV-8	LV-9	LV-10	LV-11
FREE AREA SQFT	46.5	9.08	9.08	6.7	6.7	6.7	6.7	11.7	14.6	1.87	14.6	3.18
CFM	33,500	10,000	10,000	5,000	5,000	5,000	5,000	11,000	11,000	1,000	10,000	3,000
FACE VELOCITY (FT/SEC)	720	1101	1101	746	746	746	746	940	753	535	685	943
AIR FLOW DIRECTION	INTAKE	EXHAUST	EXHAUST	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE	EXHAUST	EXHAUST	EXHAUST	EXHAUST
LENGTH (IN)	120"	48"	48"	42"	42"	42"	42"	54"	60"	24"	60"	30"
HEIGHT (IN)	96"	48"	48"	42"	42"	42"	42"	54"	60"	24"	60"	30"
DEPTH (IN)	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
SP IN WG	0.07"	.14"	.14"	.07"	.07"	.07"	.07"	.15"	.06"	.06"	.06"	0.15
MATERIAL	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM
TYPE	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
MODEL	ELF6375	ELF6375	ELF6375	ELF6375	ELF6375	ELF6375	ELF6375	ELF6375	ELF6375	ELF6375	ELF6375	ELF6375
LOCATION	COMPRESSOR / HVAC ROOM	OPEN AREA	OPEN AREA	OPEN AREA	OPEN AREA	HALLWAY LOWER	HALLWAY UPPER	OPERATING GALLERY	OPERATING GALLERY	FIRE RISER ROOM	COMPRESSOR HVAC ROOM	ELEC ROOM HEADWORKS
MANUFACTURER	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN	RUSKIN
NOTES	1	1	1	1	1	1	1	1	1	1	1	1

NOTES:
1. PROVIDE WITH DRAINABLE BLADES AND 1"x1" BIRD SCREEN.

AIR HANDLING UNIT SCHEDULE

	DESIGNATION	AHU-1	AHU-2A,2B	AHU-3	AHU-4	AHU-5	AHU-6
GENERAL	CFM MAX	7,000	6,000	4,300	6,000	500	500
GENERAL	CFM MIN	7,000	6,000	4,300	3,000	500	500
GENERAL	OA RATE	100%	0%-100%	100%	100%	325	50
GENERAL	ECONOMIZER	NO	YES	NO	NO	NO	NO
GENERAL	ESP IN WG	1"	.75"	1"	1"	0.75"	0.75"
GENERAL	FAN RPM	1,414	1,350	1,613	1,222	3,450	3,450
GENERAL	WHEEL DIAMETER	24.5"	17.8"	18.5	24.5	25.0	25.0
GENERAL	WHEEL TYPE	PLENUM	PLENUM	PLENUM	PLENUM	PLENUM	PLENUM
GENERAL	WHEEL CLASS	I	I	I	I	I	I
GENERAL	HP	7.5	7.5	7.5	7.5	1	1
GENERAL	MOTOR RPM	1760	1760	1760	1760	1760	1760
GENERAL	MOTOR TYPE	ODP AND ECM	ODP AND ECM	ODP AND ECM	ODP AND ECM	ODP AND ECM	ODP AND ECM
GENERAL	VOLTAGE	460	460	460	460	208	208
GENERAL	FLA	196	8.4	107	196	28.5	28.5
GENERAL	MAX OVERCURRENT	250	15	125	250	35	35
HEATING	EAT DEG F	17	NA	17	17	34	65
HEATING	LAT DEG F	75	NA	77	62	76	74
HEATING	FUEL	DX	NA	DX	DX	DX	DX
HEATING	HEAT PUMP COIL CAPACITY MBH	435	NA	265	289	22.5	3.1
HEATING	SUPPLEMENTAL HEATING CAPACITY (KW	128	NA	78	85	6.6	1.0
COOLING	MBH SENS	290	195	170	NA	17.1	11.8
COOLING	MBH TOTAL	430	210	250	NA	24	14.5
COOLING	EAT DEG F DB/WB	93/74	85/65	93/74	NA	87/71	77/64
COOLING	LAT DEG F DB	56	55	55	NA	55	55
	AREA SERVED	FILTER PRESS	ELEC RM	CHEM ROOM	CLEARWELL	SAMPLE PREP	CONTROL RM
	LOCATION	MECH RM	MECH RM	MECH RM	MECH RM	OFFICE MECH	OFFICE MECH
	UNIT ORIENTATION	HORIZONTAL	VERTICAL	HORIZONTAL	HORIZONTAL	VERTICAL	VERTICAL
	ORIENTATION INLET (OUTSIDE AIR)	VERTICAL UP	VERTICAL UP	VERTICAL UP	VERTICAL UP	NA	NA
	ORIENTATION OUTLET (DISCHARGE AIR)	VERTICAL DOWN	VERTICAL UP	VERTICAL DOWN	VERTICAL UP	VERTICAL UP	VERTICAL UP
	ORIENTATION INLET (RETURN AIR)	NA	NA	NA	NA	SIDE	SIDE
	FILTER	2" MERV 13	2" MERV 13	2" MERV 13	2" MERV 13	2" MERV 13	2" MERV 13
	LENGTH MAX	262	250	192	250	31	31
	HEIGHT MAX	48	48	48	48	56	56
	WIDTH MAX	84	85	62	85	33	33
	OPERATING WEIGHT	4100 LBS	1,600 LBS	2600 LBS	4000 LBS	405	405
	MODEL	M2	V3	M2	M2	V3	V3
	MANUFACTURER	AAON	AAON	AAON	AAON	AAON	AAON
	NOTES	2,3,6	1,3,6	2,3,6	2,3,4,6	3,5	3,5

NOTES:
1 PROVIDE DUCT SMOKE DETECTOR IN THE RETURN DUCT IN ACCORDANCE WITH NFPA 90A.
2 PROVIDE DUAL CIRCUITED COOLING/HEAT PUMP COIL WITH A HORIZONTAL COIL SPLIT. LEAD COOLING COIL SHALL BE LOWER COIL DURING COOLING MODE.
3 FURNISH WITH STAND ALONE CONTROLS WITH DISCONNECT, STEP-DOWN TRANSFORMER AND REMOTE ADJUSTABLE WALL TEMPERATURE SENSOR.
4 PROVIDE WITH REMOTE HUMIDITY SENSOR TO CONTROL FAN AIR VOLUME.
5 PROVIDE WITH REMOTE HUMIDITY SENSOR TO CONTROL ROOM HUMIDITY.
6 PROVIDE WITH UNIT MOUNTED SERVICE LIGHTS.

FILTER HOUSING SCHEDULE

DESIGNATION	FILTER-1
FLOW RATE PEAK (CFM)	7,400
FILTER TYPE	MULTI-STAGE-DRAW-THRU
FIRST STAGE	30% OR MERV 8
NUMBER OF FILTERS	4
FILTER SIZE	24"x24"x2"
INITIAL/FINAL PRESSURE DROP (INCHES WC)	0.31"/75"
AVERAGE FACE VELOCITY	463
SECOND STAGE	90% OR MERV 14
NUMBER OF FILTERS	4
FILTER SIZE	24"x24"x13"
INITIAL/FINAL PRESSURE DROP (INCHES WC)	0.60"/1.2"
AVERAGE FACE VELOCITY	463
THIRD STAGE	HEPA 99.99% @ 0.3 MICRON
NUMBER OF FILTERS	4
FILTER SIZE	24"x24"x11.5"
INITIAL/FINAL PRESSURE DROP (INCHES WC)	1.30"/2"
AVERAGE FACE VELOCITY	463
HEIGHT	72"
WIDTH	59"
LENGTH	96"
WEIGHT	1600 LBS
MODEL	GN SERIES
MANUFACTURER	CAMFIL FARR

NOTES:
1. PROVIDE WITH DIFFERENTIAL PRESSURE INDICATION AND SWITCH ACROSS EACH FILTER BANK.
2. REFER TO SECTION 23 34 00, HVAC FANS, FOR ADDITIONAL REQUIREMENTS.
3. INITIAL PRESSURE DROP IS BASED ON 500 FPM FACE VELOCITY.

DUCTWORK SCHEDULE

			SMACNA DUCT CONSTRUCTION CRITERIA			INSULATION REQUIREMENTS				
			PRESSURE CLASS	MATERIALS OF	SEAL CLASS	DUCTWORK EXTERNAL		DUCTWORK INTERNAL		
						INSULATION TYPE	THICKNESS	INSULATION TYPE	THICKNESS	APPLICABLE
SYSTEM	SERVICE	SECTION	(IN W.G.)	CONSTRUCTION			INCHES		INCHES	REMARKS
AHU-2A,2B,4,5 WAC-1,2,3,4,5,6	SUPPLY AIR, RETURN AIR	ALL	2"	GALVANIZED	B	NONE	NONE	D3 - ELASTOMERIC LINING	1"	1,2,3
AHU-1,3	SUPPLY AIR	ALL	2"	STAINLESS 304L	B	NONE	NONE	D3 - ELASTOMERIC LINING	1"	1,2
ALL	OUTSIDE AIR	PLENUM TO UNIT	2"	GALVANIZED	B	D2 - RIGID FIBERGLASS	1-1/2"	NONE	NONE	1,4
ALL	TRANSFER AIR	ALL	2"	GALVANIZED	A	NONE	NONE	D3 - ELASTOMERIC LINING	1/2"	1
EF-3, EF-7	EXHAUST AIR	ALL	2"	STAINLESS 304L	B	NONE	NONE	NONE	NONE	1
EF-2A,2B,4,5,6,8	EXHAUST AIR	ALL	2"	GALVANIZED	B	NONE	NONE	NONE	NONE	1
EF-1	EXHAUST AIR	FAN SUCTION	(-)15"	STAINLESS 304L	A	NONE	NONE	NONE	NONE	1
		FAN DISCHARGE				D2 - RIGID FIBERGLASS	1-1/2"	NONE	NONE	1,5

1. REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON DUCTWORK AND INSULATION REQUIREMENTS.
2. INTERNALLY INSULATE ALL SUPPLY AIR DUCTWORK.
3. INTERNALLY INSULATE RETURN AIR DUCTWORK AND MIXING BOXES FROM CONNECTION AT AIR HANDLER TO FIRST INTERIOR PENETRATION.
4. EXTERNALLY INSULATE EXHAUST AND OUTSIDE AIR DUCTWORK AND PLENUM FROM EXTERIOR WALL TO CONNECTION AT EQUIPMENT.
5. EXTERNALLY INSULATE EXHAUST FROM FAN DISCHARGE TO DISCHARGE STACK. PROVIDE ALUMINUM JACKET ON EXTERIOR DUCTWORK.

SEAL CLASS A ALL TRANSVERSE JOINTS LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS
SEAL CLASS B ALL TRANSVERSE JOINTS AND LONGITUDINAL JOINTS AND SEAMS
SEAL CLASS C TRANSVERSE JOINTS ONLY

FUME HOOD SCHEDULE

DESIGNATION	FH-1
HOOD TYPE	BENCHTOP FUME HOOD
CFM	310
DUCT COLLAR SIZE	10" ROUND
FACE VELOCITY	100 FPM @ 18" OPENING
AIR PRESSURE LOSS	0.05"
SASH OPENING WIDTH	26" W
SASH OPENING HEIGHT MAXIMUM	28"
SASH OPENING HEIGHT NORMAL	18"
AIR FLOW	CONSTANT WITH BYPASS
TYPE	DUCTED EXHAUST
WIDTH OVERALL	36"
HEIGHT OVERALL	60"
DEPTH OVERALL	32"
WEIGHT	100 LBS
LOCATION	SAMPLE PREP
MODEL	PROTECTOR XL
MANUFACTURER	LABCONCO
NOTES	1

NOTES:
1. PROVIDE WITH A CUP SINK AND 15 AMP DUPLEX ELECTRICAL OUTLET.
2. PROVIDE WITH DIGITAL AIR FLOW MONITORING SYSTEM.

3. REFER TO CONTROL SEQUENCE DESCRIPTIONS FOR REQUIRED INTERLOCKS. COORDINATE FUME HOOD CONTROLS, INSTALLATION, AND WIRING WITH INTERLOCKED SYSTEMS.

UNIT HEATER SCHEDULE

	DESIGNATION	EU-1	EU-2	EU-3	EU-4
GENERAL	CFM	350	350	350	350
GENERAL	HP	1/100	1/100	1/100	1/100
GENERAL	VOLTS/PHASE	208/3	208/3	208/3	208/3
GENERAL	FULL LOAD AMPS	24	24	24	24
GENERAL	ORIENTATION	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL
HEATING	EAT DEG F	60	60	60	60
HEATING	FUEL	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC
HEATING	KW OUTPUT	5	5	5	5
	AREA/LOCATION SERVED	COMPRESSOR / HVAC ROOM	COMPRESSOR / HVAC ROOM	COMPRESSOR / HVAC ROOM	COMPRESSOR / HVAC ROOM
	HEIGHT	16"	16"	16"	16"
	WIDTH	14"	14"	14"	14"
	LENGTH	7.5"	7.5"	7.5"	7.5"
	WEIGHT	27 LBS	27 LBS	27 LBS	27 LBS
	MOUNTING HEIGHT	8'	8'	8'	8'
	MODEL	MUH-05-81	MUH-05-81	MUH-05-81	MUH-05-81
	MANUFACTURER	QMARK	QMARK	QMARK	QMARK

NOTES:
1. PROVIDE WITH A FACTORY LOW VOLTAGE THERMOSTAT SUITABLE FOR REMOTE MOUNTING.
2. PROVIDE WITH WALL MOUNT BRACKET

ELECTRIC WALL HEATER SCHEDULE

DESIGNATION	EH-1	EH-2	EH-3	EH-4
CFM	65	65	65	65
DISCHARGE ORIENTATION	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL
UNIT ORIENTATION	WALL RECESSED	WALL RECESSED	WALL RECESSED	WALL RECESSED
VOLTS	208	208	208	208
AMPS	12.5/6.3	12.5/6.3	12.5/6.3	12.5/6.3
WATTS	1500/750	1500/750	1500/750	1500/750
LEAVING TEMPERATURE	100°F/75°F	100°F/75°F	100°F/75°F	100°F/75°F
DIMENSIONS	10"W x 12"H x 5"D	10"W x 12"H x 5"D	10"W x 12"H x 5"D	10"W x 12"H x 5"D
WEIGHT LBS	30 LBS	30 LBS	30 LBS	30 LBS
AREA/LOCATION SERVED	OPEN AREA	OPEN AREA	FIRE RISER ROOM	RESTROOM
MODEL	CWH1151DSF	CWH1151DSF	CWH1151DSF	CWH1151DSF
MANUFACTURER	QMARK	QMARK	QMARK	QMARK

NOTES:
1. PROVIDE WITH INTEGRAL THERMOSTAT SET TO HOLD ROOM AT 50°F.
2. PROVIDE A 2" RECESS MOUNTING FRAME BOX.

DIFFUSER SCHEDULE

DESIGNATION	D8	D10	D10P
NECK SIZE (DIA)	8	10	10"x10"
FACE/MODULE SIZE	24"x24"	24"x24"	24"x24"
TYPE	MODULAR CORE	MODULAR CORE	PERF. DIFFUSER
CFM FOR NC RATING	209	382	278
NC LEVEL	19	22	16
MATERIAL OF CONST	STEEL	STEEL	ALUMINUM
MODEL	MCD	MCD	PAS-AA
MANUFACTURER	TITUS	TITUS	TITUS

NOTES:
1. CONTRACTOR SHALL COORDINATE FRAME TYPE WITH BUILDING CONSTRUCTION.
2. D10-P SHALL HAVE A 4-WAY THROW OF 3'-5'-9' BASED ON 150-100-50 FEET PER MINUTE VELOCITY.

RETURN GRILLE SCHEDULE

DESIGNATION	RG-1	RG-2	RG-3	RG-4
NECK SIZE	22x10	22x18	12x12	30x16
FACE/MODULE SIZE	24x12	24x20	14x14	32x18
TYPE	FIXED	FIXED	FIXED	FIXED
BLADE SPACING	3/4"	3/4"	3/4"	3/4"
DEFLECTION	0°	35°	35°	35°
CFM FOR NC RATING	1092	2799	528	1866
NC LEVEL	29	32	19	19
MATERIAL OF CONST	ALUMINUM	ALUMINUM	ALUMINUM	24
MODEL	S301FL	350FL	350FL	350FL
MANUFACTURER	TITUS	TITUS	TITUS	TITUS

NOTES:
1. CONTRACTOR SHALL COORDINATE FRAME TYPE WITH BUILDING CONSTRUCTION.
2. MAXIMUM PRESSURE DROP THRU GRILLE SHALL BE LESS THAN 0.08" WC AT THE CFM FOR NC RATING

INFRARED HEATER SCHEDULE

DESIGNATION	IR-1A,1B,1C,1D,1E,1F,1G
KW	5
HEAT PATTERN	60° ANGLE
MOUNTING HEIGHT	14'
HEAT PATTERN DIMENSIONS AT FLOOR	18' x 16'
VOLTS / Hz / PHASE	460/3
ROOM TEMPERATURE	55° F
DIMENSIONS (IN)	33" L x 15" W x 11" H
WEIGHT	25 LBS
AREA/LOCATION SERVED	OPEN AREA OF BUILDING
MODEL	342-60-TH
MANUFACTURER	FOSTORIA

NOTES:
1. PROVIDE WITH WALL MOUNTED THERMOSTAT.
2. PROVIDE WITH A WALL MOUNTING BRACKET.

THIS DRAWING IS LOANED FOR SOLE USE OF THE INTENDED RECIPIENT AND ONLY FOR THE LIMITED PURPOSES FOR WHICH IT WAS PROVIDED. USE BY OTHER ENTITIES OR FOR OTHER PURPOSES IS PROHIBITED AND AT THE USER'S OWN RISK. DRAWINGS ARE TO BE RETURNED UPON REQUEST OF THE FORWARDING RECIPIENT.

PART	REV	DESCRIPTION	DRW	CHKR	DE	DVR	DM	DATE	PE	DATE
	Ø	ISSUED FOR CONSTRUCTION	JP	JM	TP		LE	06/2017		

REVISION OR ISSUE PURPOSE — REVISION APPROVALS — SQUAD CHECK (WE AR CV ST HV EM FP PD EE IE M NP)

RPE — THEODORE J. PRICE, REGISTERED ENGINEER, AGRICULTURE, COMMERCE, No. 107130, STATE OF TENNESSEE — 03 JULY 2017

DRAWING APPROVALS		DATE
DRW	J PIGMAN	06/16/17
CHKR	J McMURREN	06/16/17
DE	T PRICE	06/16/17
DVR		
DM	L ELLIS	06/16/17
PE	Teresa J. Pierce, P.E.	

UCOR URS | CH2M Oak Ridge LLC
OF200 Mercury Treatment Facility
Designed by URS|CH2M Oak Ridge LLC (UCOR) for the Department of Energy Oak Ridge Office of Environmental Management under U. S. Government contract DE-SC-0004645

Y-12 National Security Complex managed and operated by Consolidated Nuclear Security, LLC for the Department of Energy under U.S. Government contract DE-NA0001942 ∘ Oak Ridge, Tennessee ∘

PROJECT NAME:
OF200 MERCURY TREATMENT FACILITY

HVAC
TREATMENT FACILITY
HVAC SCHEDULES

USE	DISC	DT	DC	CM	SYSTEM	STAT	SIZE	BLDG	FL	CLASS
3	H	A	S	NC	FAC	AR	E	9410-02	X	U

SH.	OF	TYPE	DRAWING NO.	PART	REV
1	1	DD	H941002-F-0017	000	0

ISSUED FOR CONSTRUCTION

662886

6/29/2017 8:50:41 PM
H941002-F-0017.dgn