DEDICATED OUTSIDE AIR SYSTEM SCHEDULE

MARK	SERVES	LOCATION	ENERGY RECOVERY TYPE	ENERGY RECOVERY OUTSIDE/SUPPLY AIR						ENERGY RECOVERY EXHAUST AIR						MIN EFFECTIVNESS % (SUMMER/WINTER) [2]	SUPPLY FANS					EXHAUST FANS					DIMENSIONS (LxWxH) (IN)	OPERATING WEIGHT (LBS)	BASIS OF DESIGN OR EQUAL		REMARKS
				AIRFLOW (CFM)	EXT S.P. (IN. W.G.)	SUMMER		WINTER		UNIT AIRFLOW (CFM)	EXT S.P. (IN. W.G.)	SUMMER		WINTER			FAN QTY.	WHEEL DIA. (IN.)	TYPE	FAN AIRFLOW (CFM)	FAN SHAFT POWER BHP	FAN QTY.	WHEEL DIA. (IN.)	TYPE	FAN AIRFLOW (CFM)	FAN SHAFT POWER BHP			MANUFACTURER	MODEL	
						EAT (DB/WB) (°F)	LAT (DB/WB) (°F)	EAT (DB/WB) (°F)	LAT (DB/WB) (°F)			EAT (DB/WB) (°F)	LAT (DB/WB) (°F)	EAT (DB/WB) (°F)	LAT (DB/WB) (°F)														
DOAS-1	VENT. AIR	MECH. ROOM	ENERGY WHEEL	5300	2.00	99 / 76	84.2 / 68.2	21 / 18	53.5 / 47.3	5000	2.00	75 / 62	91 / 71.4	75 / 62	37.6 / 36	63.69 / 67.11	2	13.98	PLENUM	2750	2.98	2	13.98	PLENUM	2500	2.25	222 X 68 X 104	5400	DAIKIN	CAH015GDCM	(1) (2) (3) (4) (5)

REMARKS:

1. SEE MECHANICAL/ELECTRICAL COORDINATION SCHEDULE ON SHEET E6-1 FOR ELECTRICAL DATA.
2. EFFECTIVENESS RATINGS BASED ON ASHRAE 84-91 AND ARI 1060 STANDARDS.
3. PROVIDE UNIT WITH NON-FUSED DISCONNECT SWITCH, SINGLE POINT POWER CONNECTION, 2" THICK MERV 8 EXHAUST AIR AND 2" THICK MERV 13 OUTSIDE AIR FILTERS, CHILLED WATER COOLING COIL (SEE COOLING COIL SCHEDULE). HOT WATER HEATING COIL (SEE HEATING COIL SCHEDULE), EXHAUST FAN SECTION HOUSING A 2-FAN EXHAUST FAN ARRAY WITH EACH EXHAUST FAN AT 2.25 BHP, SUPPLY FAN SECTION HOUSING A 2-FAN SUPPLY FAN ARRAY WITH EACH SUPPLY FAN AT 2.98 BHP, AND 48" DIAMETER SYNTHETIC FIBER 3-ANGSTROM MEDIA NON-SEGMENTED ENERGY WHEEL SPEED CONTROLLED BY A VARIABLE FREQUENCY CONTROLLER. UNIT SHALL BE CAPABLE OF BEING COMPLETELY BROKEN DOWN IN THE FIELD ALLOWING SECTIONS TO BE INTRODUCED INTO THE BUILDING THROUGH A 4-FOOT WIDE DOOR AND THEN REASSEMBLED ONCE INSIDE THE BUILDING.
4. EXHAUST AIR FLOW DOES NOT INCLUDE PURGE VOLUME.
5. CONTROL OF DOAS UNIT SHALL BE THROUGH BUILDING MANAGEMENT CONTROL SYSTEM (BMCS).

CHILLED WATER COOLING COIL SCHEDULE

MARK	SERVES	LOCATION	AIRFLOW (CFM)	MIN ROWS	MAX FINS PER IN	MAXIMUM FACE VELOCITY (FPM)	ENTERING AIR CONDITIONS		LEAVING AIR CONDITIONS		SENSIBLE CAPACITY (MBH)	TOTAL CAPACITY (MBH)	MAXIMUM APD (IN. W.C.)	FLUID DATA					DIMENSIONS (LxWxH) (IN)	BASIS OF DESIGN OR EQUAL		REMARKS
							DB (°F)	WB (°F)	DB (°F)	WB (°F)				FLUID TYPE	EWT (°F)	LWT (°F)	GPM	MAX WPD (FT)		MANUFACTURER	MODEL	
CC-1	BUILDING VENTILATION AIR	DOAS-1	5300	5	12	387	84.2	68.2	54.4	53.8	172.45	236.78	0.5	WATER	44	56.1	39.1	5.9	47 x 8 x 42	DAIKIN	5WH1205B	(1)

REMARKS:

1. COOLING COIL PROVIDED WITH DOAS UNIT.

HOT WATER HEATING COIL SCHEDULE

MARK	SERVES	LOCATION	AIRFLOW (CFM)	MIN ROWS	MAX FINS/IN	MAX FACE VELOCITY (FPM)	ENTERING AIR CONDITIONS	LEAVING AIR CONDITIONS	TOTAL CAPACITY (MBH)	MAX APD (IN. W.C.)	FLUID DATA					DIMENSIONS (LxWxH) (IN)	BASIS OF DESIGN OR EQUAL		REMARKS
							DB (°F)	DB (°F)			FLUID TYPE	EWT (°F)	LWT (°F)	GPM	MAX WPD (FT)		MANUFACTURER	MODEL	
HC-1	BUILDING VENTILATION AIR	DOAS-1	5300	1	12	600	54	72.4	113.74	0.40	WATER	160	104	4.0	0.26	30 x 4 x 44	DAIKIN	5WQ1201C	(1)
RHC-1	BUILDING VENTILATION AIR REHEAT	DUCT MOUNTED	5300	3	8	883	55	85.0	174.09	0.64	WATER	160	105	6.3	1.20	42.12 x 6 x 29	DAIKIN	5WQ0803B	(2) (3)

REMARKS:

1. HEATING COIL PROVIDED WITH DOAS UNIT.
2. HEATING COIL PROVIDED SHIPPED LOOSE AND INSTALLED BY MECHANICAL CONTRACTOR IN DUCTWORK.
3. DIMENSIONS OF REHEAT COIL RHC-1 INCLUDES HEADERS AND RETRUN BENDS. COIL FACE SIZE: 27" HIGH x 32" LONG.

AIR COOLED CHILLER SCHEDULE

MARK	TYPE	SERVES	LOCATION	CAPACITY (TONS)	COMPRESSOR TYPE	NO. COMPRESSORS	STEPS UNLOADING	REFRIGERANT	AMBIENT TEMP (°F)	MIN EER (AHRI)	SOUND POWER (DBA)	CHILLED WATER DATA						DIMENSIONS (LxWxH) (IN)	WEIGHT (LBS)	BASIS OF DESIGN OR EQUAL		REMARKS
												EWT (°F)	LWT (°F)	WPD (FT)	FLOW (GPM)	MIN. FLOW (GPM)	FOULING FACTOR			MANUFACTURER	MODEL	
CH-1	AIR COOLED	BUILDING CHILLED WATER	GRADE	60.0	SCROLL	4	8	R-32	105	9.0	91	56.0	44.0	10.5	125.0	65.9	0.0001	85.3 X 87.6 X 100.1	4040	DAIKIN	AGZ004F	(1) (2)

REMARKS:

1. SEE MECHANICAL/ELECTRICAL COORDINATION SCHEDULE ON SHEET E6.1 FOR ELECTRICAL DATA.
2. PROVIDE UNIT WITH REMOTE BRAZED PLATE EVAPORATOR, SINGLE POINT FACTORY DISCONNECT SWITCH WITH CIRCUIT PROTECTION, UNIT GROUND FAULT PROTECTION, SERVICE OUTLET,

PLATE AND FRAME HEAT EXCHANGER SCHEDULE

MARK	SERVES	LOCATION	WARM SIDE DATA					COOL SIDE DATA					TOTAL HEAT EXCHANGED (MBH)	LMTD (Deg F)	FOULING FACTOR	DIMENSIONS (LxWxH) (IN)	OPERATING WEIGHT (LBS)	BASIS OF DESIGN OR EQUAL		REMARKS
			FLUID	GPM	EWT (°F)	LWT (°F)	MAX WPD (FT)	FLUID	GPM	EWT (°F)	LWT (°F)	MAX WPD (FT)						MANUFACTURER	MODEL	
HX-1	BUILDING HEATING HOT WATER	BASEMENT MECHANICAL ROOM	WATER	25	135	110	15.0	WATER	25	105	129	15.0	309.24	5.02	0.00010	15.75 X 12.12 X 42	500	BELL & GOSSETT	AP20	(1)

REMARKS:

1. PROVIDE HEAT EXCHANGER WITH TYPE 316 STAINLESS STEEL PLATES, NITRILE HT GASKET MATERIAL, AND 2" CONNECTION SIZES.

GAS FIRED CONDENSING BOILER SCHEDULE

MARK	SERVES	LOCATION	TYPE	OPERATING PRESSURE (PSIG)	INPUT (MBH)	OUTPUT (MBH)	FUEL TYPE	FLUE GAS VENT CONNECTION (IN)	COMBUSTION AIR CONNECTION (IN)	DIMENSIONS (LxWxH) (IN)	OPERATING WEIGHT (LBS)	BASIS OF DESIGN OR EQUAL		REMARKS
				WATER								MANUFACTURER	MODEL	
B-1	BUILDING HEATING HOT WATER	BASEMENT MECHANICAL ROOM	HYDRONIC	160	500	483	NATURAL GAS	4	4	41.5 X 27 X 52.75	445	LAARS	XTR-500	(1) (2) (3)
B-2	BUILDING HEATING HOT WATER	BASEMENT MECHANICAL ROOM	HYDRONIC	160	500	483	NATURAL GAS	4	4	41.5 X 27 X 52.75	445	LAARS	XTR-500	(1) (2) (3)

REMARKS:

1. SEE MECHANICAL/ELECTRICAL COORDINATION SCHEDULE ON SHEET E6-1 FOR ELECTRICAL DATA.
2. PROVIDE BOILER WITH INTEGRATED TEMPERATURE /IGNITION CONTROL WITH ON-BOARD PID CONTROL WITH TOUCHSCREEN AND COLOR DISPLAY, BOILER CONTROLLER CAPABLE OF SENDING AND RECEIVING INFORMATION THROUGH A MODBUS OR BACNET MSTP INTERFACE, BOILER CIRCULATING PUMP (FIELD INSTALLED AT BOILER INLET), MODULATING GAS FIRING WITH 10:1 TURNDOWN, STAINLESS STEEL HEAT EXCHANGER, LOW NOX SYSYTEM, BUILT-IN CONDENSATE TRAP, SPARK IGNITION, ASME "H" STAMP, 75 PSI ASME RATED PRESSURE RELIEF VALVE, DRAIN VALVE, TEMPERATURE AND PRESSURE GAUGE, ALARM OUTPUT, 4-20 mA MODULATION CONTROL, OUTDOOR RESET WITH SENSOR, MANUAL HIGH LIMIT RESET, AND BURNER SIGHT GLASS.
3. PROVIDE EACH BOILER WITH A U.S. DRAFT COMPANY MODEL "CDS2" CONSTANT PRESSURE CONTROL DAMPER (FIELD INSTALLED), A SINGLE US DRAFT MODEL V250 PRESSURE CONTROLLER (FILED INSTALLED) AND A SINGLE US DRAFT MODEL CBX13 FLUE VENT EXHAUST FAN (FIELD INSTALLED) AT TOP OF FLUE VENT OUTSIDE.

FINAL CONSTRUCTION DOCUMENTS

A/E FIRM PRIME: KENNETH HAHN ARCHITECTS, INC. OMAHA, NE. SUBCONTRACTOR: ALVINE ENGINEERING OMAHA, NE.	DESIGNED: MRG DRAWN BY: MRG TECH. REVIEW: BAH DATE: 2/15/2024	SUB SHEET NO. M7-1	TITLE OF SHEET MECHANICAL SCHEDULES BUCKSTAFF BATHHOUSE HVAC HOT SPRINGS NATIONAL PARK HOT SPRINGS, AK	DRAWING NO. XXX/XXXX PMIS NO. 177425 SHEET 33 OF 51