

D-04

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REVISIONS		
#	DESCRIPTION	DATE

MAKE-UP AIR SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	SERVES	CFM	E.S.P. (INCHES)	FAT	CAP MBH	FUEL	HP	FILTERS	ELECTRIC V/PH	INTERLOCK MCA	WITH	REMARKS
MAU-1	CAMBRIDGE M130	PLANT	25,000	0.75	-20	2069	LPG	15	(2)	460/3	-	EF-1	1,2,3,4,5,6,7
MAU-2	CAMBRIDGE M130	PLANT	25,000	0.75	-20	2069	LPG	15	(2)	460/3	-	EF-2	1,2,3,4,5,6,7

- NOTES: 1. PROVIDE WITH 2-POSITION O.A. MOTORIZED DAMPER.
 2. PROVIDE WITH 2" PERMANENT FILTER FRAME WITH REPLACEABLE MEDIA.
 3. SINGLE POINT POWER CONNECTION.
 4. PROVIDE REMOTE CONTROL PANEL WITH FAN/OFF/AUTO, DISCHARGE SET POINT, AND ROOM OVERRIDE THERMOSTAT.
 5. PROVIDE MODULATING GAS BURNER.
 6. PROVIDE WITH CONTACTOR TO INTERLOCK UNIT WITH EF.
 7. SELECT AT SITE ALTITUDE OF 5500 FASL.

FAN SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	LOCATION	SERVICE	VIBRATION ISOLATION	CFM	S.P.D. (IN)	MAX RPM	MOTOR HP	ELEC. V/PH	SONES	REMARKS
EF-1	GREENHECK SBC-2L48-30	PLANT	AC/HR EXHAUST	-	25,000	0.25	500	3	460/3	22	6,7,8
EF-2	GREENHECK SBC-2L48-30	PLANT	AC/HR EXHAUST	-	25,000	0.25	500	3	460/3	22	6,7,8
EF-3	GREENHECK SP-B110	SHOWER	EXHAUST	-	95	0.375	950	80 W	115/1	2.7	1,2,3,4,5
EF-4	GREENHECK SP-A410A	MENS RR	EXHAUST	-	250	0.375	1000	121 WATTS	115/1	4.2	1,2,3,4,5
EF-5	GREENHECK SP-A410A	WOMENS RR	EXHAUST	-	250	0.375	1000	121 WATTS	115/1	4.2	1,2,3,4,5
EF-6	GREENHECK SP-B110	PLANT RR	EXHAUST	-	95	0.375	950	80 W	115/1	2.7	1,2,3,4,5
EF-7A	GREENHECK S-IPA	IX COLUMN	EXHAUST	-	300	3.5	3633	1/3	115/1	-	SWITCH ON/OFF
EF-7B	GREENHECK S-IPA	IX COLUMN	EXHAUST	-	300	3.5	3633	1/3	115/1	-	SWITCH ON/OFF
EF-8A	GREENHECK S-IPA	WASTEWATER	EXHAUST	-	300	3.5	3633	1/3	115/1	-	ALWAYS ON
EF-8B	GREENHECK S-IPA	WASTEWATER	EXHAUST	-	300	3.5	3633	1/3	115/1	-	ALWAYS ON
EF-9A	GREENHECK S-IPA	ELLUTION	EXHAUST	-	300	3.5	3633	1/3	115/1	-	SWITCH ON/OFF
EF-9B	GREENHECK S-IPA	ELLUTION	EXHAUST	-	300	3.5	3633	1/3	115/1	-	SWITCH ON/OFF
EF-10A	GREENHECK 13-IPA	SHAKER SCREENS	EXHAUST	-	3,000	3.5	2820	3	460/3	-	SWITCH ON/OFF
EF-10B	GREENHECK 13-IPA	SHAKER SCREENS	EXHAUST	-	3,000	3.5	2820	3	460/3	-	SWITCH ON/OFF
EF-11A	GREENHECK S-IPA	RESIN WATER	EXHAUST	-	400	3.5	3660	1/2	115/1	-	ALWAYS ON
EF-11B	GREENHECK S-IPA	RESIN WATER	EXHAUST	-	400	3.5	3660	1/2	115/1	-	ALWAYS ON
EF-12A	GREENHECK S-IPA	PRECIP	EXHAUST	-	200	3.5	3300	1/3	115/1	-	INTERLOCK W/ PLC
EF-12B	GREENHECK S-IPA	PRECIP	EXHAUST	-	200	3.5	3300	1/3	115/1	-	INTERLOCK W/ PLC
EF-13A	GREENHECK S-IPA	RESTORATION	EXHAUST	-	300	3.5	3633	1/3	115/1	-	SWITCH ON/OFF
EF-13B	GREENHECK S-IPA	RESTORATION	EXHAUST	-	300	3.5	3633	1/3	115/1	-	SWITCH ON/OFF
EF-14	GREENHECK SWB-120	TRANSFER BAY	GENERAL EXH	-	7,000	0.50	1343	3	460/3	-	SWITCH ON/OFF
EF-15	GREENHECK B50-130	DRYER	PRESSURIZATION	-	1,000	1.5	1969	3/4	115/1	-	HEPA FILTER
EF-21	GREENHECK SBC-2L48-30	(SHOP) MAINT.	GENERAL EXH	-	1,500	0.25	500	1	460/3	22	6,7,9
EF-22	GREENHECK SBC-2L48-30	(SHOP) CONSTR.	GENERAL EXH	-	1,800	0.25	500	1	460/3	22	6,7,9
EF-23	GREENHECK SP-A410A	(SHOP) MENS RR	EXHAUST	-	250	0.375	1000	121 WATTS	115/1	4.2	1,2,3,4,5
EF-24	GREENHECK SP-A410A	(SHOP) WOMENS RR	EXHAUST	-	250	0.375	1000	121 WATTS	115/1	4.2	1,2,3,4,5

- NOTES: 1. PROVIDE WITH STANDARD PRE-WIRED DISCONNECT AND THERMAL OVERLOAD.
 2. PROVIDE WITH WHITE PLASTIC GRILLE.
 3. PROVIDE ROOF CAP AND GRAVITY BACK DRAFT DAMPER.
 4. SWITCH WITH LIGHTS.
 5. BASE FAN SELECTION AT SITE ALTITUDE OF 5500 F.A.S.L.
 6. SIDEWALL PROPELLER EXHAUST FAN.
 7. PROVIDE WITH SAFETY CAGE, WALL SLEEVE, AND GRAVITY BACKDRAFT DAMPER.
 8. PROVIDE HAND/OFF/AUTO TO CONTROL MAU & EF. INTERLOCK EF WITH RESPECTIVE MAU.
 9. PROVIDE HAND/OFF/AUTO TO CONTROL EF. INTERLOCK EF WITH RESPECTIVE MOTORIZED DAMPER ON LOUVER.

AIR CONDITIONING UNIT SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	SERVES	INTERLOCK WITH	CFM	ELECTRIC MCA	V/PH	COOLING MBH	REF R410A	REMARKS
AC-1	MITSUBISHI PKA-A24FA	SERVER	CJ-AC-1	530-705	1	208/1	24	R410A	1,2,3
AC-2	MITSUBISHI PKA-A24FA	PLANT CONTROL RM	CJ-AC-2	530-705	1	208/1	24	R410A	1,2,3

- NOTES: 1. PROVIDE UNIT MOUNTED DISCONNECT.
 2. PROVIDE CONDENSATE PUMP.
 3. PROVIDE LOW AMBIENT KIT.

CONDENSING UNIT SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	INTERLOCK WITH	CAPACITY MBH	AMBIENT TEMP.	ELECTRIC V	PH	MCA	SEER	REMARKS
CJ-AC1	MITSUBISHI PUY-A18NHA	AC-1	24	95	208	1	18	13.5	1,2
CJ-AC2	MITSUBISHI PUY-A18NHA	AC-2	24	95	208	1	18	13.5	1

- NOTES: 1. PROVIDE LOW AMBIENT CONTROL AND HEAD PRESSURE CONTROL.
 2. PROVIDE 6" CONCRETE PAD MINIMUM 6" LARGER THAN UNIT IN ALL DIRECTIONS.

LOUVER SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	LOCATION	FUNCTION	SIZE W" X H"	CFM	S.P. (IN. W.G)	FREE AREA VELOCITY (FPM)	REMARKS
L-1	RUSKIN ELF375DX	SEE PLANS	INTAKE	16x16	400	0.1	500	1,2,3
L-2	RUSKIN ELF375DX	SEE PLANS	INTAKE	16x16	400	0.1	500	1,2,3
L-3	RUSKIN ELF375DX	SEE PLANS	INTAKE	12x12	200	0.1	200	1,2,3
L-14A	RUSKIN ELF375DX	TRUCK BAY	INTAKE	30x30	3500	0.1	1000	1,2,3,4
L-14A	RUSKIN ELF375DX	TRUCK BAY	INTAKE	30x30	3500	0.1	1000	1,2,3,4
L-21	RUSKIN ELF375DX	MAINT SHOP	INTAKE	24x24	1500	0.1	900	1,2,3,4
L-22	RUSKIN ELF375DX	CONSTR SHOP	INTAKE	24x24	1800	0.1	900	1,2,3,4

- NOTES: 1. PROVIDE WITH BRD SCREEN.
 2. COLOR TO MATCH METAL BUILDING.
 3. ALUMINUM CONSTRUCTION WITH BAKED ENAMEL FINISH.
 4. PROVIDE 120V MOTORIZED DAMPER. INTERLOCK WITH ASSOCIATED EXHAUST FAN.

FURNACE SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	SERVES	CFM	EXT. S.P.	FUEL	HP	IN	OUT	FILTERS	ELECTRICAL	CONFIGURATION	REMARKS
F-1	LENNOX GSIMP-600-135	LAB	1990	0.6	PROPANE	1	132	123	(3)	115/1	MULTI-POSITION	1,2,3,4,5,6,7,8
F-2	LENNOX GSIMP-600-135	1ST FL INT OFFICES	1990	0.6	PROPANE	1	132	123	(3)	115/1	MULTI-POSITION	1,2,3,4,5,6,7,8
F-3	LENNOX GSIMP-600-135	1ST FL EXT OFFICES	1990	0.6	PROPANE	1	132	123	(3)	115/1	MULTI-POSITION	1,2,3,4,5,6,7,8
F-4	LENNOX GSIMP-600-135	2ND FL INT OFFICES	1990	0.6	PROPANE	1	132	123	(3)	115/1	MULTI-POSITION	1,2,3,4,5,6,7,8
F-5	LENNOX GSIMP-600-135	2ND FL EXT OFFICES	1990	0.6	PROPANE	1	132	123	(3)	115/1	MULTI-POSITION	1,2,3,4,5,6,7,8
F-21	LENNOX GSIMP-48C-110	SHOP BLDG OFFICES	1600	0.6	PROPANE	1/2	110	103	(3)	115/1	MULTI-POSITION	1,2,3,4,5,6,7,8

- NOTES: 1. INTEGRATED SOLID STATE CONTROLS WITH BLOWER AND LIMIT CONTROLS.
 2. PROVIDE CASED DX COOLING COIL TO MATCH FURNACE AND OUTDOOR AIR TO AIR HEAT PUMP UNIT.
 3. PROVIDE 1" PLEATED DISPOSABLE FILTER.
 4. PROVIDE PVC INTAKE AND EXHAUST PIPING AND CONCENTRIC WALL TERMINATION KIT. SIZE PER MANUFACTURERS RECOMMENDATIONS.
 5. PROVIDE PROGRAMMABLE THERMOSTAT WITH 7-DAY SETBACK, HEAT/COOL/AUTO, FAN ON/OFF/AUTO
 6. PROVIDE HEAT EXCHANGER WITH 10 YEAR WARRANTY.
 7. BASE SELECTION ON SITE ELEVATION OF 5500 F.A.S.L. PROVIDE HIGH ALTITUDE KIT.
 8. PROVIDE IEG/PROPANE CONVERSION KIT.

AIR TO AIR HEAT PUMP UNIT SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	SERVES	CAPACITY MBH	AMBIENT TEMP.	COIL DB	EAT WB	REF TYPE	ELECTRICAL V/PH	MCA	MOCF	SEER	REMARKS
HP-1	LENNOX TP6054	F-1	57	95	80	67	R-410A	460/3	10.7	15	13	1,2,3
HP-2	LENNOX TP6054	F-2	57	95	80	67	R-410A	460/3	10.7	15	13	1,2,3
HP-3	LENNOX TP6054	F-3	57	95	80	67	R-410A	460/3	10.7	15	13	1,2,3
HP-4	LENNOX TP6054	F-4	57	95	80	67	R-410A	460/3	10.7	15	13	1,2,3
HP-5	LENNOX TP6054	F-5	57	95	80	67	R-410A	460/3	10.7	15	13	1,2,3
HP-21	LENNOX TP04854	F-21	46	95	80	67	R-410A	460/3	8.7	15	13	1,2,3

- NOTES: 1. PROVIDE 5 YEAR COMPRESSOR WARRANTY.
 2. PROVIDE 6" LEG STANDS FOR HEAT PUMP.
 3. PROVIDE COIL HAIL GUARDS.

REGISTER GRILLES AND DIFFUSER SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	NOMINAL SIZE	THROAT SIZE	MAX THROW	S.P.D. (IN.)	NC	FRAME	REMARKS
S-1	KRUEGER PLD	24"x24"	6"ø	150	-	0.1"	<25	LAY-IN 1,2
S-2	KRUEGER PLQ	12"x12"	6"ø	100	-	0.1"	<25	LAY-IN 1,2
			8"ø	250	-	0.1"	<25	LAY-IN 1,2
			10"ø	400	-	0.1"	<25	LAY-IN 1,2
DL-1	KRUEGER DPL	25"x15"	25"x15"	1000	33-41-57	0.1"	<25	SURFACE
R-1	KRUEGER 6690	24"x24"	6"ø	150	-	0.1"	<25	LAY-IN 1
			8"ø	250	-	0.1"	<25	LAY-IN 1
			10"ø	400	-	0.1"	<25	LAY-IN 1

- NOTES: 1. VERIFY CEILING CONSTRUCTION PRIOR TO FURNISHING MATERIAL.
 2. PROVIDE WITH OPPOSED BLADE DAMPER.

RADIANT HEATER SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	INPUT MBH	FUEL	TUBE LENGTH	MOUNTING HEIGHT	ELECTRICAL V/PH	MCA	REMARKS
RH-1	CO-RAY-VAC CTH3-200/150	160	PROPANE	50'	SEE PLANS	115/1	1.2	1,2,3,4,5,6
RH-2	CO-RAY-VAC CTH3-200/150	170	PROPANE	50'	SEE PLANS	115/1	1.2	1,2,3,4,5,6
RH-3	CO-RAY-VAC CTH3-200/150	170	PROPANE	50'	SEE PLANS	115/1	1.2	1,2,3,4,5,6
RH-4	CO-RAY-VAC CTH3-150/100	115	PROPANE	40'	SEE PLANS	115/1	1.2	1,2,3,4,5,6
RH-5	CO-RAY-VAC CTH3-150/100	135	PROPANE	40'	SEE PLANS	115/1	1.2	1,2,3,4,5,6
RH-21	CO-RAY-VAC CTH3-115/75	80	PROPANE	30'	SEE PLANS	115/1	1.2	1,2,3,4,5,6
RH-22	CO-RAY-VAC CTH3-150/100	125	PROPANE	40'	SEE PLANS	115/1	1.2	1,2,3,4,5,6
RH-23	CO-RAY-VAC CTH3-150/100	125	PROPANE	40'	SEE PLANS	115/1	1.2	1,2,3,4,5,6
RH-24	CO-RAY-VAC CTH3-150/100	150	PROPANE	40'	SEE PLANS	115/1	1.2	1,2,3,4,5,6

- NOTES: 1. PROVIDE RADIANT TUBE HEATER WITH REFLECTOR SHIELD. VERIFY TOTAL OVERALL LENGTH.
 2. PROVIDE 4" WALL VENT & W/ HIGH WIND CAPS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 3. PROVIDE LOCK IN PLACE 1-PIECE, TOP-SIDE, 24 GA. ALUMASTEEL HIGH WIND REFLECTOR SYSTEM.
 4. PROVIDE LINE VOLTAGE THERMOSTAT WITH POSITIVE-OFF.
 5. PROVIDE 3 YEAR WARRANTY ON ALL COMPONENTS.
 6. SELECT BASED ON SITE ELEVATION OF 5500 FEET ABOVE SEA LEVEL.

PACKAGED TERMINAL HEAT PUMP UNIT SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	HEATING DATA				COOLING DATA				FAN CFM	ELECTRICAL V/PH	MCA	
		MBH @ 47° F.	COP	MBH @ 24° F.	COP	RESIST. KW	MBH	OAT	EER				
PTAC 21	AMANA PTH073B20AM	6.2	3.3	4.8	3.3	2.0	7	95	11.6	245	0.5	230/1	4

- NOTES: 1. PROVIDE WITH MANUFACTURER'S STANDARD THERMOSTAT.
 2. PROVIDE WITH WALL SLEEVE KIT.
 3. PROVIDE CONDENSATE DRAIN KIT.
 4. PROVIDE WITH WIRE HARNESS KIT.

PROJECT#:	C08028
CADFILE:	C08028 M4
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