

FAN SCHEDULE

TAG	MANUFACTURER & MODEL NO.	AREA SERVED	SERVICE	CFM	S.P. IN. WG.	DRIVE TYPE	NOMINAL RPM	FAN TYPE	ELECTRICAL V/PH/Hz	MOTOR HP (WATTS)	CONTROL METHOD	NOTES
EF-1	GEENEHECK / SP-A110	TOILET	EXHAUST	75	0.25	DIRECT	950	CABINET	277/1/60	(19.4)	A	1-9B, 10-12
EF-2	GEENEHECK / SP-A125	ELEC	EXHAUST	100	0.25	DIRECT	1100	CABINET	277/1/60	(22.5)	B	1-9B, 10-12

NOTES:

- SCREEN
- BACKDRAFT DAMPER
- GRILLE COLOR SELECTED BY ARCHITECT
- INTEGRAL DISCONNECT SWITCH
- PROVIDE UNIT WITH VIBRATION ISOLATION.
- UNIT SHALL BE UL LISTED AND AMCA CERTIFIED
- PROVIDE MOTOR WITH THERMAL OVERLOAD PROTECTION.
- PROVIDE UNIT WITH INSULATED HOUSING FOR SOUND ATTENUATION.
- PROVIDE WITH MANUFACTURER'S PAIRED WALL CAP.
- PROVIDE MOTOR STARTER AS REQUIRED
- SPEED CONTROLLER NEAR FAN
- ACCEPTABLE EQUALS SHALL BE ACME, BREIDERT, CARNES, COOK, AND PENN.

CONTROL METHOD:
 A) W/ ROOM LIGHTS B) W/ THERMOSTAT C) W/ SWITCH D) CONTINUOUS OPERATION E) W/ CLOCK

OUTSIDE AIR CALCULATIONS BASED ON TABLE 403.3.1.1

UNIT TAG	SPACE USAGE	CLASSIFICATION OF AREA SERVED PER TABLE 403.3	AREA (SQ. FT.)	VENTILATION EFFECTIVENESS (Ez)	NO. OF PEOPLE PER 1000 SQ. FT. (TABLE 403.3)	PEOPLE QUANTITY	AIRFLOW PER PERSON (TABLE 403.3)	AIRFLOW PER SQFT (TABLE 403.3)	OUTSIDE AIR REQUIRED BY AREA SERVED (CFM)	TOTAL OUTSIDE AIR REQUIRED (CFM)	TOTAL OUTSIDE AIR PROVIDED (CFM)
AH-1	SALE	SALES	560	0.8	15	9	7.5	0.12	168.4	199.0	200
	BREAK ROOM	CONFERENCE ROOMS	66	0.8	50	4	5	0.06	30.0	199.0	200
TOTAL									198.3	199.0	200

BASEMENT LEVEL

AH-1.1	STORAGE AREA	STORAGE ROOMS	31145	0.8	0	0	0	0.12	4671.8	4672.0	300
TOTAL									4671.8	4672.0	300

FIRST FLOOR

AH-2.1	STORAGE AREA	STORAGE ROOMS	30396	0.8	0	0	0	0.12	4559.4	4560.0	300
TOTAL									4559.4	4560.0	300

SECOND FLOOR

AH-3.1	STORAGE AREA	STORAGE ROOMS	24878	0.8	0	0	0	0.12	3733.7	3734.0	300
TOTAL									3733.7	3734.0	300

*** REFER TO ASHRAE 62.1 IAQ CALCULATIONS FOR OUTSIDE AIR REDUCTION**

Air Purification Schedule

Zone Tag	Flow	S/A Flow	O/A Flow	GPS Model	GPS Quantity	Pressure Drop	Voltage (AC)	Watts	Mounting Location	Min Ion Density (ions/cc)	Notes
Storage Units	CV	1200	300	GPS-FC48-AC	1	6.05" W.C.	24-240	10.0	UNITS	200 Million	1 to 7

- Basis of Design: Global Plasma Solutions; Approved equals by Airgenics and Biozen subject to specification compliance
- Mount bi-polar ion generator where indicated on schedule
- If contractor substitutes basis of design with another manufacturer, contractor shall coordinate all electrical and mechanical changes
- Bi-polar ionization systems requiring perishable glass tubes are not acceptable
- All manufacturers must pass UL-967-2007 ozone chamber testing by either UL or ETL
- Provide with integral BAS alarm contacts
- Provide with integral self-cleaning system. Systems without self-cleaning shall not be acceptable

ELECTRIC UNIT HEATER SCHEDULE

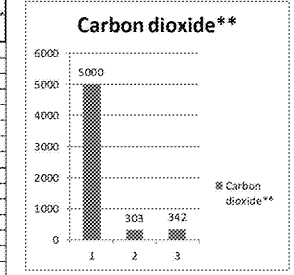
TAG	MANUFACTURER & MODEL NO.	AREA SERVED	MOUNTING	CAPACITY (MBH)	ELECTRICAL				NOTES
					KW	V	PH	HZ	
EUH-1	MARKEL / G3325TD-RP	STAIR	SURFACE	10.4	3	277	1	60	1-6

NOTES:

- UNITS SHALL BE U.L. LISTED.
- PROVIDE THERMAL OVERLOAD PROTECTION.
- PROVIDE INTEGRAL THERMOSTAT.
- ACCEPTABLE EQUALS SHALL BE QMARK AND REZTOR.
- MOUNT UNIT AT 12" A.F.F.
- PROVIDE 24 VOLT TRANSFORMER START/STOP RELAY.
- MOUNT UNIT AT 12" O.A.F.F.

Zone Tag	Facility Type	Zone Use	Zone Floor Area (square ft)	Zone Max Occupancy	Table 6.1 OA per Occupant	Table 6.1 cfm/ft ² Ra	Pz * Rp	Az * Ra	Table 6.1 Ventilation Effectiveness	Table 6.1 Outdoor Air Zone (cfm/ft ²)	Table 6.1 Outdoor Air Zone (lb/ft ³)
Storage Units	Miscellaneous Spaces	Storage Rooms	31,145.0	1.0	0.0	0.12	0	3.7	0.8	4672	0.012

Indoor Contaminants	Maximum Threshold Value (PPM)	Steady State Using the VPR* (Prescribed OA) Plasma Off	Steady State Using the IAQ Method (Reduced OA) Plasma On	Steady State Using the IAQ Method (Reduced OA) Plasma On	Steady State Using the IAQ Method (Reduced OA) Plasma On	Steady State Using the IAQ Method (Reduced OA) Plasma On	Steady State Using the IAQ Method (Reduced OA) Plasma On	Steady State Using the IAQ Method (Reduced OA) Plasma On	Steady State Using the IAQ Method (Reduced OA) Plasma On	Steady State Using the IAQ Method (Reduced OA) Plasma On	Steady State Using the IAQ Method (Reduced OA) Plasma On
Acetaldehyde	100.0	0.01109	0.00222	Yes	0.00046	50%	OSHA				
Acetone	250.0	0.00126	0.00026	Yes	0.00054	50%	NIOSH				
Ammonia	25.00	0.00178	0.00070	Yes	0.21490	50%	NIOSH				
Benzene	1.0000	0.00293	0.00050	Yes	0.00022	50%	OSHA				
n-Butane (MEK)	200.0	0.00046	0.0002	Yes	0.00133	50%	NIOSH				
Carbon dioxide**	5000	303	342	Yes	441	0%	NIOSH				
Chloroform	2.0000	0.00010	0.0000	Yes	0.00004	50%	NIOSH				
Dioxane	100.0	0.00003	0.0000	Yes	0.00000	50%	OSHA				
Hydrogen Sulfide	10.0	0.00000	0.00000	Yes	0.00000	50%	NIOSH				
Methane	NA	1.0000	1.68004	Yes	0.00000	0%	NA				
Methanol	200.0	0.00000	0.00000	Yes	0.00000	0%	NIOSH				
Methylene Chloride	5.0	0.00000	0.00014	Yes	0.00121	50%	OSHA				
Propane	100.0	0.00000	0.00000	Yes	0.00000	0%	NIOSH				
Tetrachloroethane	100.0	0.00000	0.00000	Yes	0.00000	50%	OSHA				
Tetrachloroethylene	100.0	0.00037	0.00007	Yes	0.00001	50%	OSHA				
Toluene	100.0	0.00531	0.00106	Yes	0.00032	50%	NIOSH				
1,1,1 - Trichloroethane	10.0	0.00073	0.00015	Yes	0.00058	50%	NIOSH				
Xylene	100.0	0.00230	0.00046	Yes	0.00000	50%	OSHA				



SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE

TAG	MANUFACTURER / MODEL NO.	FAN DATA					COOLING		HEAT	AUXILIARY	ELECTRICAL DATA			GENERAL DATA					ELECTRICAL DATA			WEIGHT (LBS) AH/HP	NOTES	
		SUPPLY CFM	OA (CFM)	MIN EXT. S.P. (IN. WG)	MOTOR HP	FAN RPM	TOTAL (MBH)	SENS (MBH)	TOTAL (MBH)	KW (MBH)	V/PH	MCA (A)	MCCP (A)	TAG	MANUFACTURER / MODEL NO.	NOMINAL TONNAGE	EFF. EER (SEER)	EFF. I.EER	HSPFP	V/PH	MCA (A)			MCCP (A)
AH-1	TRANE / TEM4A0C48S41S	1600	200	0.5	3/4	1050	48	33.6	28	8	480/3	15.4	20	HP-1	TRANE / 4TWA4048A4	4.0	(14)	-	8.5	480/3	8	15	150/250	1-14
AH-1.1	TRANE / TEM4A0B36S31S	1200	300	0.5	1/2	1075	36	25.2	17.5	5	480/3	8.9	15	HP-1.1	TRANE / 4TWA4036A4	3.0	(14)	-	8.5	480/3	6	15	150/250	1-14
AH-2	TRANE / TEM4A0B36S31S	1200	-	0.5	1/2	1075	36	25.2	17.5	5	480/3	8.9	15	HP-1.2	TRANE / 4TWA4036A4	3.0	(14)	-	8.5	480/3	6	15	150/250	1-14
AH-2.1	TRANE / TEM4A0C48S41S	1600	300	0.5	3/4	1050	48	33.6	28	8	480/3	15.4	20	HP-2.1	TRANE / 4TWA4048A4	4.0	(14)	-	8.5	480/3	8	15	150/250	1-14
AH-2.2	TRANE / TEM4A0C48S41S	1600	-	0.5	3/4	1050	48	33.6	28	8	480/3	15.4	20	HP-2.2	TRANE / 4TWA4048A4	4.0	(14)	-	8.5	480/3	8	15	150/250	1-14
AH-3.1	TRANE / TEM4A0C48S41S	1600	300	0.5	3/4	1050	48	33.6	28	8	480/3	15.4	20	HP-3.1	TRANE / 4TWA4048A4	4.0	(14)	-	8.5	480/3	8	15	150/250	1-14
AH-3.2	TRANE / TEM4A0C48S41S	1600	-	0.5	3/4	1050	48	33.6	28	8	480/3	15.4	20	HP-3.2	TRANE / 4TWA4048A4	4.0	(14)	-	8.5	480/3	8	15	150/250	1-14

NOTES:

- COOLING CAPACITIES ARE RATED IN ACCORDANCE WITH ARI STANDARD 210/ 290 AT 95 DEGREE FARHENHEIT AMBIENT OUTDOOR AIR TEMPERATURE, 80 DEGREE FARHENHEIT DRY BULB, AND 67 DEGREE FARHENHEIT WET BULB ENTERING AIR TEMPERATURE. AND NORMAL AIR QUANTITY LISTED
- REFRIGERANT PIPING TO BE SIZED PER TOTAL INSTALLATION EQUIVALENT LENGTH. LONG-LINE APPLICATION TO BE PROVIDED WHENEVER MANUFACTURER RECOMMENDED LENGTHS ARE EXCEEDED, INCLUDING LIQUID LINE SOLENOID VALVES, ACCUMULATOR, ETC. MAXIMUM T.D.L IS 100'
- PROVIDE SINGLE POINT ELECTRICAL CONNECTION FOR AIR HANDLING UNIT.
- PROVIDE NEW FILTER IN EACH UNIT AT TURNOVER TO OWNER.
- PROVIDE ON/OFF AUTO FAN SWITCH AND HEAT-OFF-COOL THERMOSTAT WITH SUBBASE FOR EACH UNIT. PROVIDE WITH OUTSIDE AIR TEMPERATURE SENSOR TO LOCKOUT ELECTRIC HEAT WHEN OUTSIDE AIR TEMPERATURE IS ABOVE 40 DEGREES. PROGRAM FAN SETTINGS TO BE IN "ON" POSITION DURING PERIODS OF OCCUPATION. PROVIDE A 24V MOTORIZED DAMPER ON FRESH AIR RUN-OUT TO UNIT. DAMPER IS TO OPEN WHEN FAN IS ENERGIZED.
- DRAIN CONDENSATE TO DRY WELL OR SITE STORM OUTSIDE BUILDING. PIPING SHALL BE FULL SIZE OF EQUIPMENT CONNECTION AND CONDENSATE WATER SHALL NOT DISCHARGE ACROSS WALKWAYS OR PARKING LOTS. PROVIDE CONDENSATE PUMP AS REQUIRED BY
- UNIT SHALL BE UL LISTED AND ARI CERTIFIED. MAINTAIN FACTORY SPECIFIED CLEARANCES ON ALL SIDE OF EQUIPMENT.
- PROVIDE UNIT WITH VIBRATION ISOLATION. PROVIDE OUTDOOR UNIT WITH HOUSE KEEPING PAD OR PATE EQUIPMENT RAILS WITH VIBRATION ISOLATION AS REQUIRED BY FIELD CONDITIONS.
- ELECTRICAL CONTRACTOR SHALL PROVIDE SMOKE DETECTORS ON THE RETURN DUCT DISCHARGES TO BE INSTALLED BY MECHANICAL CONTRACTOR. IF BUILDING HAS FIRE ALARM SYSTEM SMOKE DETECTORS SHALL BE BY FIRE ALARM CONTRACTOR.
- CATALOG NUMBERS AND MANUFACTURERS ARE TO INDICATE TYPE AND QUALITY OF UNIT DESIRED. SUBMIT CUTSHEETS OF THESE AND ALTERNATE MANUFACTURERS FOR ARCHITECT AND OWNER APPROVAL PRIOR TO PURCHASE OF ANY UNITS. INFORMATION ON ALTERNATE UNITS PROPOSED BY THE CONTRACTOR SHALL INCLUDE THE ADD/DEDUCT ASSOCIATED WITH ACCEPTANCE OF THAT UNIT (OR THE ALTERNATE PACKAGE AS A WHOLE).
- PROVIDE FACTORY INSTALLED DIRTY FILTER SWITCH AND BLOWER PROVING SWITCH.
- PROVIDE 1 YEAR PARTS AND LABOR WARRANTY. PROVIDE 5 YEAR PARTS WARRANTY ON COMPRESSORS.
- ACCEPTABLE ALTERNATE MANUFACTURERS: DAIKIN, CARRIER & LENNOX
- MECHANICAL CONTRACTOR SHALL PROVIDE A START UP CHECKLIST CONFIRMING ALL UNITS HAVE BEEN PROPERLY STARTED AND CONFIRMED RUNNING PROPERLY.

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Storage Facility

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Title:

MECHANICAL SCHEDULES

Date:

Project No.: _____ Drawn by: _____
 Sheet: _____

M-002