Air Handling Unit Schedule

UNIT NO.	MFGR.	MODEL NO.	FAN CFM	FAN STATIC PRESSURE (IN./WG.) INT.	EXT.	TOTAL	FAN RPM	WHEEL SIZE (IN DIA.)	BHP	MOTOR H.P.	VOLT.	PHASE	COOLING COIL FACE VELOCITY (FPM)	FIN /IN.	ROWS	AIR ON COIL DB	WB	AIR OFF COIL DB	WB	GPM	WATER TEMP.(°F.) ON	OFF	PRESSURE LOSS AIR (IN.)	WATER (FT.)	HEATING COIL FACE VELOCITY (FPM)	FINS/IN	ROWS	AIR TEMP. (°F DB) ENTERING	LEAVING	GPM	WATER TEMP.(°F.) ON	OFF	PRESSURE LOSS AIR ("WG)	WATER (FT.)	APPROX. WEIGHT (LBS.)	MIN. OSA (CFM)	REMARKS
AHU-1	GOVERNAIR	CUSTOM	16,000	2.04	1.50	3.54	1936	22 1/4"ø	13.4	20	460	3	464.9	8	6	87.0	66.0	52.5	51.7	240.0	44.0	54.4	0.59	7.4	–	–	–	–	–	–	–	–	–	–	12,000	3000	1 3 4 5 6 7 ECONOMIZER DAMPERS IN DUCTWORK
			16,000	2.04	1.50	3.54	1936	22 1/4"ø	13.4	20	460	3																								
AHU-2	GOVERNAIR	CUSTOM	8,430	2.78	1.25	4.03	1718	24"ø	8.5	15	460	3	498.3	8	6	97.0	69.0	53.0	52.0	95.0	44.0	53.4	0.64	8.2	498.3	8	2	34.0	84.0	45.0	160.0	138.4	0.16	3.9	5,500	500	1 4 6 7
AHU-3	GOVERNAIR	CUSTOM	3,750	2.11	1.0	3.11	1613	20"ø	2.8	5	460	3	489.1	6	4	100.0	70.0	64.2	58.4	26.0	44.0	55.2	0.22	3.3	489.1	6	2	30.0	82.0	21.0	160.0	139.1	0.11	2.3	4,000	500	2 4 6 7 SET FAN FOR 770 CFM MINIMUM

1. OUTSIDE AIR ECONOMIZER
2. 100% OUTSIDE AIR UNIT, VARIABLE FREQUENCY DRIVE
3. VARIABLE AIR VOLUME UNIT WITH VARIABLE FREQUENCY DRIVE, NO HEATING COIL
4. PROVIDE AND INSTALL DUCT SMOKE DETECTOR TO SHUT DOWN THE UNIT WHEN SMOKE IS SENSED.
5. TWO FANS WITH ISOLATION DAMPERS (IN DUCT) AND INDIVIDUAL VARIABLE FREQUENCY DRIVES
6. THREE WAY CONTROL VALVES
7. CO_2 SENSOR TO RAMP UP OUTSIDE AIR CFM AS REQUIRED

Split Air-Conditioning Unit Schedule

UNIT NO.	MFGR.	SECTION	MODEL NO.	AIR FLOW CFM	FAN RPM	COOLING CAPACITY * TOTAL BTUH	SENSIBLE BTUH	TTL KW.	ELECTRICAL VOLTAGE	PHASE	MIN. AMP	MAX. FUSE SIZE	WEIGHT LBS	REMARKS
SAC-1	CARRIER	INDOOR	40QNB024	500	–	19,700	17,300	2.3	208	1	0.66	15	50	FURNISH W/ REMOTE CONTROLLER & PRE-CHARGED REFRIG. PIPING
		OUTDOOR	38HDC024	–	850				208	1	16.8	25	175	

* COOLING CAPACITY AT 105°F AMB., 80°F EDB, 62°F EWB, 650 CFM

Pump Schedule

UNIT NO.	MFGR.	MODEL NO.	GPM	HEAD (FT.)	MOTOR H.P.	PUMP EFF.	RPM	VOLTAGE	PHASE	SERVICE	REMARKS
P-1	BELL AND GOSSETT	1531-2 1/2 BB	270.0	60.0	7 1/2	75%	1750	460	3	CHILLED WATER	BALDOR SUPER "E" TEFC MOTOR
P-2	BELL AND GOSSETT	1531-2 1/2 BB	270.0	60.0	7 1/2	75%	1750	460	3	CHILLED WATER	BALDOR SUPER "E" TEFC MOTOR
P-3	BELL AND GOSSETT	1531-2 BC	105.0	60.0	5	63%	1750	460	3	HEATING HOT WATER	BALDOR SUPER "E" TEFC MOTOR
P-4	BELL AND GOSSETT	1531-2 BC	105.0	60.0	5	63%	1750	460	3	HEATING HOT WATER	BALDOR SUPER "E" TEFC MOTOR

Air Cooled Chiller Schedule

UNIT NO.	MFGR.	MODEL NO.	GPM	△P (FT.)	TONS 1	MAX. KW/TON	ENT. WTR. (°F)	LVG. WTR. (°F)	MINIMUM LOAD STEP	COMPRESSORS NUMBER	REFRIGERANT	FANS HP	SIZE	POWER VOLTAGE	PHASES	MIN. CIRCUIT AMPS	APPROX. WEIGHT (LBS)	REMARKS
CH-1	TRANE	RTAA125	270.0	18.0	112.4	1.32	54.0	44.0	15%	2	R-22	5 1	30"ø	460	3	253	9600	

1. 105° F. AMBIENT, ENTERING AND LEAVING WATER TEMPERATURES AS INDICATED, R-22
2. DUAL COMPRESSORS, TWO INDEPENDANT REFRIGERATION CIRCUITS
3. SOUND ATTENUATION PACKAGE
4. WYE DELTA STARTERS

Boiler Schedule

UNIT NO.	MFGR.	MODEL NO.	BTUH RATING INPUT	OUTPUT	GPM	FLUE SIZE	PRV PRESSURE RATING	FORCED DRAFT BURNER HP	VOLTS	PHASES	REMARKS
B-1	BRYAN	AB-120	1,200,000	960,000	105	OUTDOOR	60 PSI	1/2	115	1	MUST BE SUITABLE FOR OUTDOOR INSTALLATION. MUST BE ABLE TO OPERATE WITH 6" WC INLET GAS PRESSURE.

Fan Schedule

FAN NO.	MFGR.	MODEL NO.	CFM	S.P. ("WC)	RPM	WHEEL SIZE	BHP	MAX. SONES	MOTOR H.P.	VOLTAGE	PHASE	WATTS	WEIGHT (LBS.)	LOCATION	REMARKS
E-1	GREENHECK	CSP-260	-700	0.375	900	–	–	4.0	–	115	1	328	60	BATHROOM	1
E-2	GREENHECK	SP-224	-210	0.375	1000	–	–	4.4	–	115	1	83	25	DATA/TEL	1
E-3	GREENHECK	SP-262	-960	0.375	1095	–	–	6.8	–	115	1	420	60	ELECTRICAL	1
E-4	GREENHECK	CSP-260	-700	0.375	900	–	–	4.0	–	115	1	328	60	RESTROOMS	1
E-5	GREENHECK	SP-226	-230	0.375	1050	–	–	3.9	–	115	1	81	25	FACILITIES	2
E-6	GREENHECK	SP-218	-130	0.375	1400	–	–	3.4	–	115	1	113	20	JANITOR	2
E-7	GREENHECK	SP-218	-130	0.375	1400	–	–	3.4	–	115	1	113	20	TOILET	1
E-8	GREENHECK	CSP-250	-310	0.375	1000	–	–	2.0	–	115	1	139	35	EXERCISE	2
E-9	GREENHECK	SWB-18	-3000	2.0	1381	18 1/4"ø	1.48	–	2.0	460	3	–	325	GREASE HOOD	INTERLOCK WITH AHU-3
E-10	GREENHECK	SWB-13	-900	0.75	1120	13 1/2"ø	0.16	–	1/3	115	1	–	200	VAPOR HOOD	INTERLOCK WITH AHU-3
E-11	GREENHECK	SP-226	-230	0.375	1050	–	–	3.9	–	115	1	81	25	STORAGE	2
E-12	GREENHECK	SP-226	-230	0.375	1050	–	–	3.9	–	115	1	81	25	STORAGE	1

1. MOUNT SPEED CONTROL SWITCH ON FAN FOR BALANCING
2. MOUNT SPEED CONTROL SWITCH ON WALL.

VAV Box Schedule

BOX NO.*	INLET SIZE DIA. (IN)	OUTLET SIZE W x H (IN)	CFM** COOLING	HEATING	MIN. △P (IN.)	MIN. HTG. CAPACITY (BTUH)	HOT WATER REHEAT COIL ROWS	GPM	△P (FT.)	1/2 CONTROL VALVE CV	TYPE	REMARKS
VAV-1	24x16	24x16	4215	1250	0.5	45,000	2	3.0	0.6	2.0	2 WAY	
VAV-2	24x16	24x16	4215	1250	0.5	45,000	2	3.0	0.6	2.0	2 WAY	
VAV-3	12"ø	16x15	1200	360	0.3	17,000	2	2.0	0.8	1.4	2 WAY	
VAV-4	12"ø	16x15	1120	335	0.1	14,000	1	2.0	0.9	1.4	2 WAY	
VAV-5	14"ø	20x17 1/2	1505	450	0.2	25,000	2	2.0	0.6	1.4	2 WAY	
VAV-6	24x16	24x16	3000	900	0.3	43,000	2	3.0	0.6	2.0	3 WAY	
VAV-7	14"ø	20x17 1/2	1660	500	0.3	26,000	2	2.0	0.6	1.4	2 WAY	
VAV-8	24x16	24x16	3440	1030	0.35	42,000	2	3.0	0.6	2.0	2 WAY	
VAV-9	8"ø	12x10	590	300	0.2	8,000	1	1.0	0.7	0.95	2 WAY	
VAV-10	14"ø	20x17 1/2	1490	445	0.2	22,000	2	2.0	0.6	1.4	2 WAY	
VAV-11	9"ø	14x12 1/2	600	600	0.1	15,000	1	2.0	0.7	1.4	2 WAY	CONSTANT VOLUME
VAV-12	16"ø	24x18	1950	585	0.3	33,000	2	3.0	0.5	2.0	3 WAY	
VAV-13	10"ø	14x12 1/2	895	300	0.3	13,000	2	2.0	0.7	1.4	2 WAY	
VAV-14	7"ø	12x10	410	200	0.1	9,000	1	1.0	0.7	0.95	2 WAY	
VAV-15	16"ø	24x18	1785	535	0.1	25,000	1	3.0	1.0	2.0	2 WAY	
VAV-16	24x16	24x16	3925	1175	0.4	59,000	2	5.0	1.4	3.3	3 WAY	

* VAV BOX SCHEDULE BASED ON TITUS DESV-3000
** COOLING CFM INDICATES MAX. SETTING, HEATING CFM INDICATES MIN. SETTING
*** BASED ON 180°F. ENTERING WATER TEMP., 160°F. LEAVING WATER TEMP., HEATING CFM

Mechanical Legend

- 12"ø — ROUND DUCT, INSIDE DIAMETER INDICATED
- 18x12 — RECTANGULAR DUCT, INSIDE WIDTH AND INSIDE DEPTH
- SUPPLY DUCT, SECTION
- RETURN DUCT, SECTION
- EXHAUST DUCT, SECTION
- FD — FIRE DAMPER IN DUCT
- D — SINGLE BLADE VOLUME DAMPER
- TURNING VANE
- TAKE-OFF WITH ADJUSTABLE TURNING VANE
- ROUND CONICAL TEE WITH TAKE-OFF AT 45° TO DIRECTION OF MAIN DUCT
- ACCESS PANEL IN DUCT
- INTERNAL ACOUSTIC INSULATION INSIDE DUCT, SIZES SHOWN ARE NET INSIDE
- 500 / 18x18x1 — CEILING DIFFUSER, CFM ON TOP, NECK SIZE AND NUMBER OF DIRECTIONS OF BLOW ON BOTTOM
- 300 / 12x12 — CEILING RETURN REGISTER, CFM ON TOP, NECK SIZE ON BOTTOM
- 200 / 12x12 — CEILING EXHAUST REGISTER, CFM ON TOP, NECK SIZE ON BOTTOM
- 200 / 12x12 — SIDEWALL EXHAUST, RETURN, OR RELIEF REGISTER, CFM ON TOP, NECK SIZE ON BOTTOM
- 500 / 18x12x1 — SIDEWALL DIFFUSER, CFM ON TOP, NECK SIZE AND NUMBER OF DIRECTIONS OF BLOW ON BOTTOM
- T — THERMOSTAT MOUNT ON WALL
- AFF — ABOVE THE FINISHED FLOOR
- TYP. — TYPICAL
- (E) — EXISTING
- (N) — NEW
- NTS — NOT TO SCALE
- DN — DOWN
- HHWS — HEATING HOT WATER SUPPLY
- HHWR — HEATING HOT WATER RETURN
- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- AVE. — AVERAGE

General Notes:

1. TYPE I HOOD EXHAUST DUCT SHALL BE AT LEAST 2 FEET ABOVE THE ROOF SURFACE AND A MINIMUM OF 10 FEET FROM A PROPERTY LINE, AIR INTAKE OR ABOVE THE ADJOINING GRADE LEVEL. CMC 508.9
2. FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE DEVELOPMENT RATING OF NOT MORE THAN 50 SHALL APPLY TO ALL MATERIALS EXPOSED WITHIN THE DUCT/PLENUM AND/OR INSULATION APPLIED TO THE EXTERIOR OF THE DUCTS WITHIN THE BUILDING. SHEET M1.1, CMC 602.2 AND 605
3. THE DUCT SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS AND IN ACCORDANCE WITH TABLES NOS. 6-1, 6-2 AND 6-3 PER CMC STDS. 6-1 OR 6-2. THE THICKER GAUGE AND HIGHER QUALITY REQUIREMENT SHALL DICTATE.
4. THE INSTALLATION MANUAL FOR THE COMBINATION SMOKE/FIRE DAMPER SHALL BE AVAILABLE IF REQUESTED BY THE CITY INSPECTOR AT THE JOB SITE. SHEET M4.2, CMC 606
5. FLUE VENTS SHALL NOT TERMINATE LESS THAN 3 FEET ABOVE ANY OUTSIDE OR MAKEUP AIR INLET LOCATED WITHIN 10 FEET AND AT LEAST 4 FEET FROM A PROPERTY LINE (AREA SEPARATION WALL). CMC 806.6
6. ALL EQUIPMENT SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY AND PROPERLY LABELED. CEC 110-2
7. THERMOSTATS AND CONTROL SWITCHES SHALL BE INSTALLED 48" ABOVE FLOOR AND AT A RANGE OF 15" TO 48" FOR FORWARD REACH AND 9" TO 54" FOR SIDE REACH. MUST MEET ADA ACCESSIBILITY GUIDELINES.

MECHANICAL PLUMBING FIRE PROTECTION
LEFLER ENGINEERING, INC.
1651 Second Street
San Rafael, CA 94901
(415) 456-4220 (415) 456-1248 fax

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. LEFLER Exp. 12-31-05 No. 22,208 MECHANICAL STATE OF CALIFORNIA 4/18/05

MOUNTAIN VIEW SENIOR CENTER

266 ESCUELA AVE
MOUNTAIN VIEW, CA

DATE: APRIL 18, 2005

REVISIONS:

CONSTRUCTION SET

SHEET TITLE:

MECHANICAL SCHEDULES AND LEGEND

DRAWN BY: MN
CHECKED BY: MJL
JOB NO: 0314.10

SHEET M1.1

Plot Date: April 18, 2005 - 12:02 pm
File Name: P:\Lefler\Mountain View Senior Center\M1-Sched