

AIR HANDLER SCHEDULE									
UNIT NUMBER	24-AH-1	24-AH-2	24-AH-3	24-AH-4	24-AH-6				
TYPE	BUILD-UP	BUILD-UP	BUILD-UP	BUILD-UP	BUILD-UP				
ORIENTATION	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	VERTICAL				
UNIT'S PHASE	PERMANENT	PERMANENT	PERMANENT	PERMANENT	MECHANICAL				
VOLTS/PHASE	480/3	480/3	480/3	480/3	ME 480/3				
VOLTS ØA (GEM)	480/3	480/3	480/3	480/3	120/240 GEM				
ACCESSORIES	COIL DEFROSTER	2ND STAGE FAN	1ST STAGE FAN	2ND STAGE FAN	1ST STAGE FAN				
OFFER W/ (BBS)	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES				
SUPPLY FAN NUMBER	5F-1	5F-2	5F-3	5F-4	5F-6				
SUPPLY CFM	5000	16000	3700	7620	3000				
ESP. (IN. WC.)	2.3	3.5	3.5	7.5	2.5				
ESP. (IN. WC.)	1.3	1.3	1.3	1.3	1.3				
SIZE/TYPE	15"/FC	27"/AF	16.5"/FC	16.5"/FC	13.5"/FC				
DRIVE	BELT	BELT	BELT	BELT	BELT				
RETURN/EXHAUST FAN NUMBER	RF-1	RF-2	RF-3	RF-1	RF-6				
RETURN CFM	3	15	7620	7000	3000				
DELTA P. (IN. WC.)	4800	15000	7620	7000	3000				
DELTA P. (IN. WC.)	1750	950	950	850	1150				
SIZE/TYPE	21"/AF	36"/AF	30"/AF	30"/AF	16"/BI				
DRIVE	BELT	BELT	BELT	BELT	BELT				
COOLING COIL NUMBER	CC-1	CC-2	CC-3	CC-4	CC-6				
TOTAL CAP. (MBH)	226.0	40.0	22.2	19.7	106.0				
SENS. CAP. (MBH)	91.2	37.0	21.7	82.1	84.9				
LAIR P.D. (T)	5.0	55.0	55.0	55.0	55.0				
MAX. FACE VEL. (FPM)	FIELD 500	FIELD 485	FIELD 500	FIELD 500	FIELD 500				
MAX. FACE VEL. (FPM)	FIELD 500	FIELD 485	FIELD 500	FIELD 500	FIELD 500				
AIR P.D. (IN. WC)	0.55	0.35	0.35	0.35	0.35				
AIR P.D. (IN. WC)	45.0/25.0	40.0/25.0	45.0/25.0	45.0/25.0	45.0/25.0				
COIL RATING (IN. WC)	2-1/2	60.0/30	40.0/20	40.0/20	45.0/25.0				
COIL RATING (IN. WC)	2-1/2	60.0/30	40.0/20	40.0/20	45.0/25.0				
HEATING COIL NUMBER	HC-1	HC-2	HC-3	NO COIL	NO COIL				
TOTAL CAP. (MBH)	46.0	29.0	6.0	—	—				
SENS. CAP. (MBH)	46.0	29.0	6.0	—	—				
LAIR P.D. (T)	9.0	9.0	9.0	—	—				
LAIR P.D. (T)	9.0	9.0	9.0	—	—				
COIL DIMENSIONS/ROWS	FIELD 2	FIELD 2	FIELD 2	—	—				
AIR P.D. (IN. WC)	0.75	0.15	0.15	—	—				
FIELD RATING (IN. WC)	160.0/40.0	160.0/40.0	160.0/40.0	—	—				
COIL RATING (IN. WC)	1-1/2	2	1-1/4	—	—				
COIL RATING (IN. WC)	1-1/2	2	1-1/4	—	—				
FILTER NUMBER	F-1	F-2	F-3	F-4	F-6				
FILTER Ø/TYPE	24/24X24	10/24X24	24/24X24	41/24X24	41/24X24				
FILTER TYPE	MERV 8	MERV 8	MERV 8	MERV 8	MERV 8				

NOTES:

1. PROVIDE ALL NEW DIRECT DIGITAL CDS CONTROLS AT (E) AH'S.

2. PROVIDE NEW FILTERS AT (E) FILTER SECTION.

3. DETECTION OF SMOKE, FIRING BY ELECTRIC SUPPLY ARE DUCT TO SHUT OFF THE (E) UNIT POWER UPON.

4. INSTALL IN STRICT ACCORDANCE WITH LATEST CODES.

5. AROUND MAIN CONTROL VALVES AT (E) AH-1, (E) AH-2, (E) AH-3, (E) AH-4 AND 2-WAY CONTROL VALVE AT (E) AH-6.

6. BEFORE ALL AIR HANDLER PNEUMATICALLY OPERATED, CHECK ALL PNEUMATIC CONTROLS AND SENSORS WITH NEW DIRECT DIGITAL PRODUCTS

7. MOTOR ENCLOSURES AND EFFICIENCIES SHALL MEET OR EXCEED SECT. 23.05 12, 2.1 MOTORS.

OUTDOOR UNIT SCHEDULE	
NUMBER	<div> <div><24-00U-1></div> <div><24-00U-2></div> </div>
TYPE	HEAT PUMP
VOLTS/PHASE	RE460/3
RATED TON/ AMPS	31.9 / 25
M.O.C./C.O. AMPS	45 / 50
MAX STARTING AMP/ SEC/ HSP/ SEC/ SENSORS	83.4 / - / - / -
MINIMUM THROU/ MIN	10% / 10%
HEATING CAPACITY (BTU)	156.3 / 42.7
AMBIENT TEMP (°C)	103.3 / 103.3
REFRIG. LINE SIZE (1/2/SUC)	1.56.3 / 42.7
UNIT SERVO	SEE NOTES
OFF. W/ (°F/°C)	1400 / 280
MANUFACTURER	ARAI/DAIICHI
MODEL	AR1611R012

NOTES:

1. RESPONSE CONTROLLER WITH WEB BASED OPTION.
2. PROVIDE DIGITAL INPUT/OUTPUT (DO) PANELS FOR TUNING ON/ OFF THE ASSOCIATED ERV. PANEL HAS (4) INPUTS, (4) OUTPUTS AND (4) ALARMS. 00U-1 INTERLOCKS WITH ERV-1.
3. CONTRAST STRUCTURING TECHNOLOGY SAVING PATTERNS AND LINE SIZES PRIOR TO INSTALLATION.
4. PROVIDE FACTORY CONDENSER COIL GLASSES
5. 00U/0 SYSTEM SHALL BE EQUAL TO STEP OF 17.4 COP 3% OR BETTER
6. 00U/0 UNITS MANUFACTURED BY DAIICHI OR INTERTECH SHALL BE ACCEPTABLE.

BRANCH SELECTOR BOX SCHEDULE			
NUMBER	24-BSB-1	24-BSB-2	
MOUNTING	ATIG	ATIG	
VOLTS/PHASE	200/1	200/1	
WCC/MCP	0/2/0	0/2/0	
WCC/PCB	0/2/0	0/2/0	
WEIGHT (LBS.)	60	60	
MANUFACTURER	LS	LS	

NOTES:

1. SUBMIT PIPING LAYOUT PRIOR TO INSTALLATION.
2. PROVIDE 24"X24" CEILING ACCESS PANEL. FOR EACH BOX.
3. CEILING UNITS MANUFACTURED BY DAKIN OR WINDBOY SHALL BE ACCEPTABLE.

ENERGY RECOVERY VENTILATOR

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1. PROVIDE FACTORY OA AND EXH. AIR FILTERS.
2. INTERLOCK ERV-1 WITH ODU-1 AND ERV-2 WITH ODU-2. ERV SHALL BE SET TO RUN WHEN ODU IS 1.
3. MOTOR ENCLOSURES AND EFFICIENCIES SHALL MEET OR EXCEED SPEC. SECT. 23.05.12.2.1. MOTORS.

AIR DISTRIBUTION SCHEDULE		
SYMBOL	TYPE	DESCRIPTION
(A)	CEILING SUPPLY	MODULAR CORE DIFFUSER WITH FRAME FOR LAV-IN T-BAR CEILING, FLUSH FACE MOUNTING.
(B)	CEILING FLUSH FACE MOUNTING	THIS MODEL MOD-3.
(C)	CEILING FLUSH FACE MOUNTING	THIS MODEL PAR-3.
(D)	CEILING RETURN/EXHAUST	MODULAR CORE DIFFUSER WITH FRAME FOR SURFACE MOUNTING, MOD-10.
(E)	WALL LOUVER	1/2X1/2X1/2 EGGCRATE GRILLE, STEEL CONSTRUCTION WITH FRAME FOR SURFACE FLUSH FACE MOUNTING.
(F)	SIDEWALL EXHAUST	THIS MODEL SO-1. ALUM. FRAME WITH 0.1" ALV. SLATS 6" O.C. AT 45° DOUBLE FRAMEABLE, 1/8" MESH INSECT SCREEN RUSINOR MODEL EFLR161TD.
(G)	CEILING SUPPLY	DOUBLE DEFLECTION LOUVERED FACE, 1/2" SPACING, THIS MODEL 17D2.
(H)	CEILING SUPPLY	16-0" CONTINUOUS FLOW BAR, JET THROW SLOT DIFFUSER, (2) 8-1/2" SECTIONS, 2-1/2" WIDE SINGLE SLOT WITH CONCEALED FASTENING, PROVIDE WITH (4) 4-0" WIDE 8-1/2" DIA. DUCT CONNECTIONS AND TRANSITIONS TO 8" ROUND.
(I)	CEILING SUPPLY	10-0" CONTINUOUS FLOW BAR, JET THROW SLOT DIFFUSER, (2) 5-0" SECTIONS, 2-1/2" WIDE SINGLE SLOT WITH CONCEALED FASTENING, PROVIDE WITH (4) 5-0" DIA. DUCT CONNECTIONS AND TRANSITIONS TO 8" ROUND.
(J)	CEILING SUPPLY	5-0" CONTINUOUS FLOW BAR, JET THROW SLOT DIFFUSER, (2) 2-1/2" SECTIONS, 2-1/2" WIDE SINGLE SLOT WITH CONCEALED FASTENING, PROVIDE WITH (4) 5-0" DIA. DUCT CONNECTION AND TRANSITION TO 8" ROUND.

FAN COIL SCHEDULE											
NUMBER	24-FC-1	24-FC-2	24-FC-3	24-FC-4	24-FC-5	24-FC-6	24-FC-7	24-FC-8	24-FC-9	24-FC-10	24-FC-11
TYPE	CONCEALED	CONCEALED	CONCEALED	CONCEALED	CONCEALED	CONCEALED	CONCEALED	CONCEALED	CONCEALED	CONCEALED	CONCEALED
VOLTS/PHASE	200/3	200/3	200/3	200/3	200/3	200/3	200/3	200/3	200/3	200/3	200/3
M.O.C.	200/3	200/3	200/3	200/3	200/3	200/3	200/3	200/3	200/3	200/3	200/3
HSP/STEER	-/SEE NOTE 5	-/SEE NOTE 5	-/SEE NOTE 5	-/SEE NOTE 5	-/SEE NOTE 5	-/SEE NOTE 5	-/SEE NOTE 5	-/SEE NOTE 5	-/SEE NOTE 5	-/SEE NOTE 5	-/SEE NOTE 5
1 SUPPLY FAN/SPEED	1580/HIGH	1140/HIGH	1140/HIGH	545/HIGH	315/HIGH	315/HIGH	425/HIGH	545/HIGH	245/HIGH	245/HIGH	445/HIGH
2 SUPPLY FAN/WC	0.55	0.39	0.39	0.31	0.32	0.32	0.32	0.31	0.32	0.32	0.31
3 MIN. V.A. (KW)	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
4 MIN. V.A. (TON)	2.65	2.27	2.25	1.40	0.85	0.82	1.00	1.00	0.75	0.71	1.04
5 SEHS, CAP. (MMH)	35.7	25.5	25.5	13.3	7.7	8.4	9.1	15.7	6.3	6.3	13.0
6 F.A. DB (MMH)	84.5/65.2	83.0/74.5	83.1/64.4	80.3/66.4	79.7/74.0	81.5/74.8	83.2/78.1	79.8/65.6	79.7/74.0	79.7/74.0	80.3/66.7
7 F.A. DB (FAR. °F)	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5
8 ACHFT. FTH. (°F)	DIRECT EXP.	DIRECT EXP.	DIRECT EXP.	DIRECT EXP.	DIRECT EXP.	DIRECT EXP.	DIRECT EXP.	DIRECT EXP.	DIRECT EXP.	DIRECT EXP.	DIRECT EXP.
9 SEHS, CAP. (MMH)	15.0	10.0	14.0	10.0	6.0	6.0	6.0	16.8	6.0	6.0	13.0
10 F.A. DB (FAR. °F)	32.0	25.0	41.0	16.8	8.1	8.8	8.1	16.8	8.5	8.1	17.0
11 NOMINAL CAP. (MMH)	59.9	54.8	54.8	62.0	61.9	61.1	62.0	62.0	61.1	61.1	62.0
12 F.A. DB (°F)											
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3. PROVIDE FACTORY CONDENSATE PUMP CAPABLE OF LIFTING CONDENSATE A MINIMUM OF 24".
4. PROVIDE REFRIGERANT LINE SIZE AND CONNECTIONS DIAGRAMS PRIOR TO INSTALLATION.
5. FC/DOU SYSTEM SHALL BE EQUAL TO STEP OF 1/2" AND COP OF 3.3 OR BETTER.
6. CONDENSATE PIPING SHALL BE INSTALLED WITH A MINIMUM OF 1/2" SLOPE AND UNIT NUMBER TO SHOW UNITS MOUNTED ABOVE CEILING SHALL BE MOUNTED A MAXIMUM OF 12' ABOVE FINISHED CEILING. CEILING SHALL BE TAGGED WITH LABEL SHOWING ARROW AND UNIT NUMBER TO SHOW WHICH CEILING TILE IS TO BE REMOVED FOR UNIT ACCESS. CEILING WIRE FOR THIS TILE SHALL BE ANGLED SLIGHTLY OUTWARD FROM REMOVABLE PANEL FOR EASE OF ACCESS. PROVIDE CONDENSATE PIPING WITH REMOVABLE MANIFOLD ACCESS.
7. PROVIDE DETECTOR AND INSTALL IN DUCT. INSTALL IN STRICT ACCORDANCE WITH CURRENT CODES.
8. PROVIDE CEILING OR DUCT SMOKE DETECTOR IN THE SUPPLY AIR DUCT TO SHUT OFF THE UNIT POWER UPON DETECTION OF SMOKE. WIRING BY ELECT. MECH. CONTRACTOR TO PROVIDE.
9. PROVIDE DETECTOR AND INSTALL IN DUCT. INSTALL IN STRICT ACCORDANCE WITH CURRENT CODES.
10. NO SECONDARY DRAIN IS REQUIRED.
11. UNITS SHALL BE PROVIDED WITH SENSOR IN CONDENSATE DRAIN PAN THAT SHUTS OFF UNIT AND SENDS AN ALARM TO THE MAIN CONTROL PANEL WHEN CONDENSATE LEVEL IS TOO HIGH.
12. CONDENSATE PIPING SHALL BE INSTALLED WITH A MINIMUM OF 1/2" SLOPE AND UNIT NUMBER TO SHOW UNITS MOUNTED ABOVE CEILING SHALL BE MOUNTED A MAXIMUM OF 12' ABOVE FINISHED CEILING. CEILING SHALL BE TAGGED WITH LABEL SHOWING ARROW AND UNIT NUMBER TO SHOW WHICH CEILING TILE IS TO BE REMOVED FOR UNIT ACCESS. CEILING WIRE FOR THIS TILE SHALL BE ANGLED SLIGHTLY OUTWARD FROM REMOVABLE PANEL FOR EASE OF ACCESS. PROVIDE CONDENSATE PIPING WITH REMOVABLE MANIFOLD ACCESS.
13. MOTOR ENCLOSURES AND EFFICIENCIES SHALL MEET OR EXCEED SPEC. SECT. 23.05 12.21 MOTORS.

EXHAUST FAN SCHEDULE

24-EF-1	CENTRIFUGAL	
	HOOF	
	0.115/0.93	
	350	
	0.25	
	DIRECT	
	11865	
	3.4 26.65	
	SEE PLAN	
	SEE NOTES	
	30	
	ACME	
	PER1100	

SKIDRAFT DAMPER.
STATUS CONTROL BY EMS.
STORY PRESLOPED ROOF CURB.
RUN CONTINUOUS DURING OCCUPIED PERIODS.
LOSURES AND EFFICIENCIES SHALL MEET OR
EXCEED 23.05.12.2.1 MOTORS

OUTDOOR UNIT SCHEDULE

TYPE	24" COOL-3
PLANT	AIR COOLED
W.C.P.	16.5
W.C.P.	16.5
SENSIBLE COOLING (MBH)	208-210/1
W.C.P.	13.3
COOLING PHASE	208-210/1
W.C.P.	13.3
W.C.P.	13.3
COOLING CAP	1.5 TONS
W.C.P.	1.5 TONS
SERVICE CAP. (%)	150
OFFER W/ (CRS)	150
W.C.P.	150
W.C.P.	150
MODEL	R410A/1U

2. PROVIDE LOW AMBIENT KILL.
3. PROVIDE FACTORY CONDENSER COIL GUARDS.
4. PROVIDE MINIMUM CLEARANCES AROUND EACH UNIT PER THE MANUFACTURER'S RECOMMENDATIONS.
5. SIZE REFRIGERANT LINES PER MANUFACTURERS RECOMMENDATIONS

NUMBER	24-101-3
INDOOR UNIT SCHEDULE	

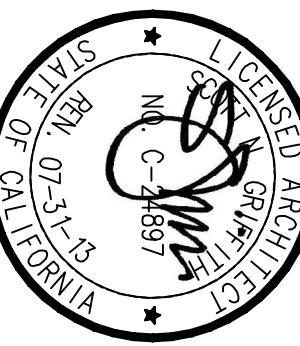
	TYPE	EXPOSED-CEILING DUCTLESS CASSETTE
1	MOUNTING	CEILING
2	COIL/PHASE	208-1/240/1
3	M.O.C.P.	15
4	SEER/EER	13.0/12.6
5	NOMINAL HP	0.125
6	REF. CAP./SPEED	799/HI
7	REF. CAP. (IN. WC.)	-
8	DRIVE	DIRECT
9	MIN. O.S.A. (CM)	30
10	TOTAL CAP. (MBH)	18.0
11	SENS. CAP. (MBH)	13.3

1	ENV. DRY WGT. (LBS.)	105
1	AMBIENT TEMP. (°F)	
N	COIL TYPE	DIRECT EXP.
G		
SERVICE	SEE PLANS	
ACCESSORIES	SEE NOTES	
OPER. WT. (LBS.)	90	

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Drawing Title MECHANICAL SCHEDULES	Project Title BUILDING 24 SEISMIC CORRECTION AND ADDITION	Project Number 670-215
		Building Number 24
Approved Project Director	Location VAMC FRESNO, CA	Drawing Number MH-600
		Dwg 142 of 180

**Office of
Construction
and Facilities
Management**