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AIR HANDLING UNIT SCHEDULE

AHU MODULES – GENERAL INFORMATION / SUPPLY FAN DATA

TAG / LOCATION	AREA SERVED	TYPE	MAXIMUM AIRFLOWRATE (CFM)	MINIMUM O.A. AIR FLOW RATE (CFM)	EXTERNAL TOTAL P-DROP (INCHES H2O)	APPROX. OUTLET VELOCITY (FPM)	TYPE	MOTOR DATA: MIN HP	VOLT	PHASE	EFFICIENCY
AHU-12-01 MECH 1133	MAINT/MECH RM	VAV	13,455	1,130	1.5	2839	AIRFOIL	15	480	3	93
AHU-12-02 MECH 1133	BATTERY RM	OA	7,260	7,260	1.4	2559	AIRFOIL	7.5	480	3	91
AHU-12-03 MECH 1133	AUDITORIUM	OA	6,000	6,000	1.0	2621	AIRFOIL	5	480	3	89.5
AHU-12-04 MECH 1133	LOBBY/ CONFERENCE CENTER	OA / VAV	2,600	2,600	1.1	-2978	PLUG	5	480	3	89.5
AHU-12-05 MECH 1133	CAFETERIA / SERVING / KITCHEN	VAV	24,900	4,055	1.5	2714	AIRFOIL	20	480	3	93
AHU-12-06 MECH 1133	LOBBY / NON-SECURE	VAV	3,585	368	1.0	2978	FORWARD CURVE	5	480	3	89.5
AHU-12-07 MECH 1133	LOBBY / SECURE	VAV	4,205	815	1.0	2436	AIRFOIL	5	480	3	89.5
AHU-12-08 MECH 0014	BASEMENT - QUAD 1	UFAD	15,210	3,900	1.0	2544	AIRFOIL	15	480	3	93
AHU-12-09 MECH 0104	BASEMENT - QUAD 2	UFAD	22,260	2,650	1.1	2424	AIRFOIL	20	480	3	93
AHU-12-10 MECH 0204	BASEMENT - QUAD 3	UFAD	21,785	3,355	1.0	2368	AIRFOIL	20	480	3	93
AHU-12-11 MECH 0304	BASEMENT - QUAD 4	UFAD	14,675	1,605	1.0	2487	AIRFOIL	15	480	3	93
AHU-12-12 MECH 2014	MAIN LEVEL - QUAD 1	UFAD	22,562	3,335	1.2	2459	AIRFOIL	20	480	3	93
AHU-12-13 MECH 2104	MAIN LEVEL - QUAD 2	UFAD	31,980	2,660	1.3	2787	AIRFOIL	25	480	3	94.1
AHU-12-14 MECH 2204	MAIN LEVEL - QUAD 3	UFAD	28,370	2,635	1.2	1974	AIRFOIL	20	480	3	93
AHU-12-15 MECH 2304	MAIN LEVEL - QUAD 4	UFAD	23,015	3,355	1.0	2501	AIRFOIL	20	480	3	93
AHU-12-16 MECH 0014	CER / LAB	OA	1,460	1,460	0.5	2258	FORWARD CURVE	2	480	3	86.5
AHU-12-17 MECH 0014	CER / LAB (REDUNDANT UNIT)	OA	1,460	1,460	0.5	2258	FORWARD CURVE	2	480	3	86.5

RETURN FAN DATA

TAG / LOCATION	MAXIMUM AIRFLOW RATE (CFM)	EXTERNAL TOTAL P-DROP (INCHES H2O)	APPROX. OUTLET VELOCITY (FPM)	TYPE	MOTOR DATA: MIN HP	VOLT	PHASE	EFFICIENCY
AHU-12-01 MECH 1133	13455	0.8	2839	AIRFOIL	10	480	3	91.7
AHU-12-02 MECH 1133	-	-	-	-	-	-	-	-
AHU-12-03 MECH 1133	-	-	-	-	-	-	-	-
AHU-12-04 MECH 1133	-	-	-	-	-	-	-	-
AHU-12-05 MECH 1133	24900	1.0	2714	AIRFOIL	15	480	3	93
AHU-12-06 MECH 1133	3585	0.4	2978	FORWARD CURVE	3	480	3	89.5
AHU-12-07 MECH 1133	4205	0.5	2436	AIRFOIL	3	480	3	89.5
AHU-12-08 MECH 0014	15,210	0.4	2544	AIRFOIL	10	480	3	91.7
AHU-12-09 MECH 0104	22260	0.5	2424	AIRFOIL	15	480	3	93
AHU-12-10 MECH 0204	21725	0.4	2955	AIRFOIL	15	480	3	93
AHU-12-11 MECH 0304	14830	0.4	2487	AIRFOIL	10	480	3	91.7
AHU-12-12 MECH 2014	22562	0.8	2459	AIRFOIL	15	480	3	93
AHU-12-13 MECH 2104	31980	1.0	2225	AIRFOIL	15	480	3	93
AHU-12-14 MECH 2204	28370	0.8	2472	AIRFOIL	15	480	3	93
AHU-12-15 MECH 2304	22945	0.5	2501	AIRFOIL	15	480	3	93
AHU-12-16 MECH 0014	-	-	-	-	-	-	-	-
AHU-12-17 MECH 0014	-	-	-	-	-	-	-	-

COOLING COIL DATA

TAG / LOCATION	MAXIMUM AIRFLOWRATE (CFM)	MINIMUM SENSIBLE CAPACITY (BTU/HR)	MAXIMUM SENSIBLE HEAT RATIO	APPROXIMATE TOTAL CAPACITY (BTU/HR)	E.A.T. DB (°F)	E.A.T. WB (°F)	L.A.T. DB (°F)	L.A.T. WB (°F)	WATER P-DROP (INCHES H2O)	COIL FLOW (GPM)	WET AIR P-DROP (INCHES H2O)
AHU-12-01 MECH 1133	13,450	190,400	0.93	242,100	77.0	54.0	61.0	47.5	7.1	40.4	0.1
AHU-12-02 MECH 1133	7,260	208,500	1.00	257,400	95.0	59.0	66.0	48.0	7.2	42.9	0.2
AHU-12-03 MECH 1133	6,000	217,400	1.00	270,000	95.0	59.0	55.0	43.0	6.4	45.0	0.4
AHU-12-04 MECH 1133	2,600	59,200	1.00	71,400	95.0	59.0	70.0	50.0	2.9	11.9	0.1
AHU-12-05 MECH 1133	24,900	470,500	0.97	560,200	78.0	54.0	57.0	46.0	6.1	93.4	0.2
AHU-12-06 MECH 1133	3,585	63,300	1.00	75,800	77.0	52.5	57.5	44.5	3.1	12.6	0.2
AHU-12-07 MECH 1133	4,205	82,095	0.99	98,400	79.0	55.0	57.0	46.0	3.7	16.4	0.2
AHU-12-08 MECH 0014	15,210	356,020	0.96	442,260	88.4	57.5	54.5	44.0	7.7	73.7	0.2
AHU-12-09 MECH 0104	22,260	446,550	0.91	457,830	84.0	56.0	55.0	45.0	14.5	76.3	0.1
AHU-12-10 MECH 0204	21,785	404,485	0.93	459,550	85.5	56.7	55.0	44.5	4.5	76.6	0.2
AHU-12-11 MECH 0304	14,675	289,665	0.90	301,770	84.0	57.0	55.0	45.5	4.2	50.3	0.3
AHU-12-12 MECH 2014	22,562	499,355	0.96	502,760	87.0	58.0	55.0	46.0	4.8	83.8	0.2
AHU-12-13 MECH 2104	31,980	560,145	0.95	586,460	81.0	55.0	55.7	45.0	9.7	94.4	0.2
AHU-12-14 MECH 2204	28,370	505,900	0.94	518,680	81.4	55.0	55.6	45.0	16.7	86.4	0.2
AHU-12-15 MECH 2304	23,015	513,005	0.96	525,965	87.0	57.0	54.5	44.5	9.1	87.7	0.2
AHU-12-16 MECH 0014	1,460	37,700	1.00	47,200	95.0	59.0	66.0	48.0	6.0	7.9	0.1
AHU-12-17 MECH 0014	1,460	37,700	1.00	47,200	95.0	59.0	66.0	48.0	6.0	7.9	0.1

HEATING COIL DATA

TAG / LOCATION	MAXIMUM AIRFLOWRATE (CFM)	MINIMUM CAPACITY (BTU/HR)	E.A.T. DB (°F)	L.A.T. DB (°F)	WATER P-DROP (INCHES H2O)	WET AIR P-DROP (INCHES H2O)	COIL FLOW (GPM)
AHU-12-01 MECH 1133	4,525	103,000	49.7	75.0	0.6	0	5.15
AHU-12-02 MECH 1133	8,060	706,900	-6.0	91.4	8.8	0.3	35.3
AHU-12-03 MECH 1133	6,000	546,800	-6.0	95.0	5.4	0.2	27.3
AHU-12-04 MECH 1133	2,600	238,900	-6.0	95.0	3.3	0.2	11.8
AHU-12-05 MECH 1133	10,955	369,500	37.5	75.0	3.8	0	18.5
AHU-12-06 MECH 1133	1,755	33,500	53.4	75.0	0.2	0	1.7
AHU-12-07 MECH 1133	2,065	81,205	39.0	75.0	1.0	0	4
AHU-12-08 MECH 0014	6,020	302,755	23.0	79.0	14.6	0.1	15
AHU-12-09 MECH 0104	5,465	237,790	37.0	85.0	5.6	0	12
AHU-12-10 MECH 0204	6,645	281,840	35.0	82.0	3.1	0	14
AHU-12-11 MECH 0304	4,290	139,500	49.0	85.0	1.1	0	7
AHU-12-12 MECH 2014	9,700	312,452	48.0	84.0	2.8	0	15.6
AHU-12-13 MECH 2104	17,330	205,645	64.0	77.0	3.5	-	10.3
AHU-12-14 MECH 2204	7,175	235,025	47.0	83.4	5.7	0	11.8
AHU-12-15 MECH 2304	6,210	337,329	32.0	92.0	3.4	0	17
AHU-12-16 MECH 0014	1,460	208,200	-6.0	152.4	2.8	0.2	10.4
AHU-12-17 MECH 0014	1,460	208,200	-6.0	152.4	2.8	0.2	10.4

FILTER DATA / NOTES

TAG / LOCATION	PRE-FILTER (MERV RATING)	MAXIMUM FILTER FACE VEL. (FPM)	CLEAN P-DROP (INCHES H2O)	FINAL MAXIMUM P-DROP (INCHES H2O)	FINAL FILTER (MERV RATING)	MAXIMUM FILTER FACE VEL. (FPM)	CLEAN P-DROP (INCHES H2O)	FINAL MAXIMUM P-DROP (INCHES H2O)	NOTES
AHU-12-01 MECH 1133	8	500	0.3	0.5	13	500	0.49	0.1	1-16, 18,19
AHU-12-02 MECH 1133	8	500	0.4	0.5	13	500	0.56	1	1,2,4-13,15-16,19
AHU-12-03 MECH 1133	8	500	0.3	0.5	13	500	0.53	1	1-13,15-16,19
AHU-12-04 MECH 1133	8	500	0.3	0.5	13	500	0.48	1	1-13,15-16,19
AHU-12-05 MECH 1133	8	500	0.3	0.2	13	500	0.51	1	1-16, 18,19
AHU-12-06 MECH 1133	8	500	0.3	0.5	13	500	0.45	1	1-16, 18,19
AHU-12-07 MECH 1133	8	500	0.3	0.5	13	500	0.54	1	1-16, 18,19
AHU-12-08 MECH 0014	8	500	0.3	0.5	13	500	0.48	1	1, 3-19
AHU-12-09 MECH 0104	8	500	0.3	0.5	13	500	0.49	1	1, 3-19
AHU-12-10 MECH 0204	8	500	0.3	0.5	13	500	0.5	1	1, 3-19
AHU-12-11 MECH 0304	8	500	0.3	0.5	13	500	0.51	1	1, 3-19
AHU-12-12 MECH 2014	8	500	0.3	0.5	13	500	0.5	1	1, 3-19
AHU-12-13 MECH 2104	8	500	0.3	0.5	13	500	0.53	1	1, 3-19
AHU-12-14 MECH 2204	8	500	0.3	0.5	13	500	0.54	1	1, 3-19
AHU-12-15 MECH 2304	8	500	0.3	0.5	13	500	0.52	1	1, 3-19
AHU-12-16 MECH 0014	8	500	0.1	0.4	13	500	1.31	2	1,3-13,15-17,19
AHU-12-17 MECH 0014	8	500	XX	XX	13	500	1.31	2	1,3-13,15-17,19

NOTES:
1. UNIT EXTERNAL TOTAL PRESSURE (STATIC + VELOCITY) DOES NOT INCLUDE ANY RESISTANCE FOR UNIT COILS, FILTERS UNIT CASING AND UNIT DAMPERS. CONTRACTOR SHALL ADD VALUES FROM ACTUAL EQUIPMENT SELECTED TO DETERMINE UNIT TOTAL PRESSURE REQUIREMENTS (USE 0.55" MIN FOR DIRTY FILTERS). FAN EXTERNAL STATIC PRESSURE IS DETERMINED BY SUBTRACTING SELECTED FAN OUTLET VELOCITY PRESSURE FROM CALCULATED UNIT TOTAL.
2. UNIT SHALL BE MOUNTED ON A 6" HIGH CONCRETE HOUSEKEEPING PAD. SEE STRUCTURAL.
3. PROVIDE FANS WITH FACTORY MOUNTED VARIBLE FREQUENCY DRIVE WITH BYPASS.
4. SELECT THE SMALLEST HEATING COIL AVAILABLE TO MEET THE CAPACITY REQUIREMENT.
5. SUPPLY AIR HANDLING UNITS WITH SPRING VIBRATION ISOLATORS WITH MINIMUM STATIC DEFLECTION OF 0.75 IN WG ATTACHED DIRECTLY TO THE UNIT.
6. PROVIDE SINGLE-POINT CONNECTION WITH OVERCURRENT PROTECTION.
7. VAV FANS SHALL NOT ENTER SURGE AT ANY POINT ALONG THE SYSTEM'S OPERATING CURVE.
8. VAV FAN MOTORS SHALL BE DESIGNED TO WORK WITH A VARIABLE FREQUENCY DRIVE. SEE ELECTRICAL SPECS.
9. PROVIDE UNIT WITH DOUBLE WALL CONSTRUCTION AND HINGED ACCESS DOORS.
10. MAXIMUM ACCEPTABLE VELOCITY ACROSS THE CW COIL SHALL NOT EXCEED 500 FPM.
11. ENTERING WATER TEMPERATURE FOR THE CHILLED WATER COIL IS 42°F WITH A 12 DEGREE ΔT. DURING WATER SIDE ECONOMIZATION ENTERING WATER TEMPERATURE CAN REACH 47 DEGREES.
12. ENTERING WATER TEMPERATURE FOR THE HEATING HOT WATER COIL IS 140°F WITH A 40 DEGREE ΔT.
13. PROVIDE UNIT WITH ECONOMIZER SECTION.
14. PROVIDE UNIT WITH A MINIMUM OUTSIDE AIR DAMPER AND AN ECONOMIZATION DAMPER. [redacted] OUTSIDE AIR DAMPER TO BE RUSKIN IAQ WITH AIRFLOW MONITOR OR APPROVED EQUAL.
15. PROVIDE A SEPARATE 120 V POWER CONNECTION FOR LIGHTING IN THE UNIT.
16. PROVIDE WITH INTERGRAL DISCONNECT SWITCH.
17. UNIT MOUNTED ON RAISED ACCESS FLOOR WITH VIBRATION ISOLATORS. SEE ARCHITECTURAL DWGS FOR DETAILS.
18. PROVIDE UNIT WITH ~~MINIMUM OUTSIDE AIR DAMPER AND ECONOMIZER DAMPER.~~ Return & Relief Dampers
19. ALL POLYPHASE MOTORS SHALL BE NEMA PREMIUM EFFICIENCY MOTORS.

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ISSUED FOR CONSTRUCTION
ACTIVITY MANAGER:
DATE: 10-25-2011

US Army Corps of Engineers
Baltimore District

REAL ESTATE DIVISION, REAL PROPERTY SERVICES FIELD OFFICE ANNAPOLIS JUNCTION, MARYLAND

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Mark	Description	Date	Appr.

Designed by: JLE | Date: OCT 25, 2011 | Rev.: 0
Dwn by: BMG | Ckd by: JAB | Project No. 23051
RSFO Project Manager: Andres de la Peña | Drawing Number: F-141-02-100
Submitted by: John R. Hessed, Project Manager | File name: 1023051-H1-602.dgn | Plot date: 10/20/2011 | Plot scale: 0.1

MOUNTAINVIEW
Buckley AFB, Denver, CO
OPERATIONS BUILDING
MECHANICAL SCHEDULES
SHEET 2

Drawing No. 59113
Sheet Reference No. H1-602
Sheet 80 of 279

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