

TEST & BALANCE REPORT

Project Name: VA Hospital – Building 70 – Animal Research Facility

System Name: Floor Number 1st

Room Number	Use	Supply CFM		Exhaust CFM		Room Volume FT ³	Air Changes Per Hr		Room Pressure
		Design	Actual	Design	Actual		Design	Actual	
6	Storage	230	283	280	470	3175	8.4	8.9	NEG
7	Necropsy	580	561	760	814	1849	24.7	26.4	NEG
9	Storage	225	231	330	348	679	29.2	30.8	NEG
11	Surgery Scrub	215	242	255	431	1306	11.7	19.8	NEG
13	Sheep OR	320	420	390	547	1431	16.4	22.9	NEG
14	Animal	205	301	280	407	934	18.0	26.1	NEG
15	Animal	205	229	270	332	1005	16.1	19.8	NEG
16	Quarantine	195	191	250	395	879	17.1	27.0	NEG
17	Quarantine	600	640	700	876	1803	19.3	29.2	NEG
19	Histo Lab	450	330	500	546	1967	15.3	16.7	NEG
21	Food Storage	210	185	270	397	1893	8.6	12.6	NEG
22	Animal Prep.	330	406	380	447	1648	13.8	16.3	NEG
23	Locker Rm.	55	107	100	146	466	12.9	18.8	NEG
102	Lunch Rm.	480	478	430	462	2160	13.3	13.3	POS
103	Animal	480	504	530	608	2160	14.7	16.9	NEG
104	Animal	475	537	530	697	2160	14.7	19.4	NEG
105	Animal	540	573	580	673	2400	14.5	16.8	NEG
106	Clean Cages	520	506	570	639	2400	14.3	16.0	NEG
***	Cage Wash	2980	3078	3015	4211	7900	22.9	32.0	NEG
111	Animal	380	451	440	551	1688	15.6	19.6	NEG
115	Animal	275	316	345	378	1294	16.0	17.5	NEG
116	Animal	320	349	370	386	1320	16.8	17.5	NEG
119	Animal	460	682	540	897	2250	14.4	23.9	NEG

Project Name: VA Hospital – Building 70 – Animal Research Facility

System Name: 70-AHU-1 Supply Floor Number Ground

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
70-RH02						230					283
1	006	LD	70" x 3" (2)	2.92	79	230	286			97	283
70-RH03						580					561
2	007	LD	42"	1.0	290	290	263			290	290
3	007	LD	30"	1.0	290	290	274			271	271
70-RH04						225					231
4	009	LD	36"	1.0	225	225	208			231	231
70-RH05						215					242
5	011	LD	29" x 3" (2)	1.21	177	215	224			200	242
70-RH08						205					229
6	015	LD	30"	1.0	205	205	2225			229	229
70-RH07						205					301
7	014	LD	30"	1.0	205	205	317			301	301
70-RH06						320					420
8	013	LD	42"	1.0	320	320	348			420	420
70-RH01						660					487
9	004	CD	24" x 24"	1.0	660	660	447			487	487
70-RH09						193					191
10	016	LD	30"	1.0	193	193	135			191	191
70-RH10						600					640
11	017	LD	41" x 3" (2)	1.71	175	300	308			190	325
12	017	LD	41" x 3" (2)	1.71	175	300	286			184	315

Project Name: VA Hospital – Building 70 – Animal Research Facility

System Name: 70-AHU-1 Supply Floor Number ~~Ground~~ / 1st

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
70-RH14						155					217
13	023	CD	12" x 12"	1.0	55	55	81			110	110
14	003	CD	12" x 12"	1.0	100	100	92			107	107
70-RH13						330					406
15	022	LD	48"	1.0	330	330	421			406	406
70-RH11						550					330
16	019	LD	54"	1.0	550	550	401			330	330
70-RH12						210					185
17	021	LD	17" x 6"	.71	296	210	336			261	185
70-RH107						1410					1550
18	107	LD	30"	1.0	430	430	445			452	452
19	107	LD	30"	1.0	430	430	443			513	513
20	108	LD	48"	1.0	550	550	547			585	585
70-RH108						1570					1528
21	112	LD	48"	1.0	600	600	649			580	580
22	109	LD	29" x 6-1/2" (4)	5.24	185	970	1121			181	948
70-RH111						275					316
23	115	LD	42"	1.0	275	275	286			316	316
70-RH109						380					451
24	111	LD	47" x 3" (2)	1.96	194	380	321			451	451
70-RH110						350					423
25	114	CD	24" x 24"	1.0	350	350	376			423	423

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
70-RH106						520					506
26	106	LD	48"	1.0	520	520	493			506	506
70-RH112						320					349
27	116	LD	42"	1.0	320	320	342			349	349
70-RH105						540					573
28	105	LD	48"	1.0	540	540	533			573	573
70-RH101						460					510
29	101	CD	24" x 24"	1.0	460	460	451			510	510
70-RH113						460					682
30	119	LD	42"	1.0	230	230	266			348	348
31	119	LD	42"	1.0	230	230	290			334	334
70-RH104						475					537
32	104	LD	48"	1.0	475	475	538			537	537
70-RH103						480					504
33	103	LD	48"	1.0	480	480	506			504	504
70-RH114						620					738
34	120	LD	4'	1.0	80	80	172			182	182
35	120	LD	35" x 6-1/2" (4)	6.32	85	540	506			88	556
70-RH117						200					196
36	123	LD	30"	1.0	200	200	200			196	196
70-RH116						270					270
37	122	LD	48"	1.0	270	270	278			270	270

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
70-RH102						480					478
38	102	LD	48"	1.0	480	480	508			478	478
70-RH128						1010					828
39	139	CD	24" x 24"	1.0	260	260	206			212	212
39a	139	CD	24" x 24"	1.0	250	250	191			199	199
39b	139	CD	24" x 24"	1.0	250	250	209			219	219
40	139	CD	24" x 24"	1.0	250	250	199			198	198
70-RH122						170					153
41	131	LD	3'	1.0	170	170	150			153	153
70-RH123						120					125
42	132	LD	2'	1.0	120	120	126			125	125
70-RH124						460					445
43	138	LD	2'6"	1.0	250	250	147			130	130
44	133	CD	12" x 12"	1.0	105	105	170			151	151
45	135	CD	12" x 12"	1.0	105	105	161			164	164
70-RH127						375					354
46	137	LD	3'	1.0	375	375	359			354	354
70-RH126						560					536
47	136	LD	4'	1.0	560	560	546			536	536
70-RH125						120					132
48	134	LD	16"	1.0	60	60	57			60	60
49	134	LD	16"	1.0	60	60	72			72	72

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
70-RH121						460					573
50	130	CD	24" x 24"	1.0	140	140	221			215	215
51	130	CD	24" x 24"	1.0	140	140	157			161	161
52	130	CD	24" x 24"	1.0	180	180	197			197	197
70-RH120						80					211
53	130	CD	24" x 24"	1.0	80	80	210			211	211
70-RH129						360					267
54	140	CD	24" x 24"	1.0	180	180	285			267	267
55	140	-	-	-	180	180			(1)	-	-
70-RH115						340					340
56	121	LD	48"	1.0	340	340	341			340	340
70-RH130						460					511
57	141	LD	48"	1.0	460	460	490			511	511
70-RH119						280					320
58	125	LD	42"	1.0	280	280	307			320	320
70-RH133						350					425
59	126	CD	24" x 24"	1.0	350	350	394			425	425
70-RH131						460					522
60	142	LD	48"	1.0	460	460	495			522	522
70-RH118						215					219
61	124	LD	42"	1.0	215	215	202			219	219
70-RH132						460					516
62	143	LD	48"	1.0	460	460	447			516	516

Project Name: VA Hospital – Building 70 – Animal Research Facility

System Name: 70-AHU-2 Exhaust Floor Number Ground / 1st

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
1	003	EG	10" x 10"	1.0	130	130	120			151	151
2	025	EG	6" x 6"	1.0	90	90	86			112	112
3	023	EG	12" x 12"	1.0	97	97	133			146	146
4	022	EG	16" x 16"	1.0	380	380	443			447	447
5	021	LLE	16" x 16"	1.0	270	270	345			397	397
6	017	LLE	18" x 8"	1.0	700	700	872			876	876
7	013	LLE	14" x 8"	.78	501	390	641			701	547
8	014	LLE	14" x 8"	1.0	280	280	581			407	407
9	016	LLE	14" x 8"	1.0	250	250	379			395	395
10	015	LLE	14" x 8"	1.0	270	270	323			332	332
11	006	EG	18" x 18"	1.0	280	280	415			470	470
12	007	EG	16" x 4"	1.0	210	210	198			244	244
13	007	EG	16" x 4"	1.0	340	340	313			330	330
14	007	EG	16" x 4"	1.0	210	210	207			240	240
15	011	EG	18" x 12"	1.0	255	255	370			431	431
16	106	LLE	20" x 16"	2.22	257	570	668			288	639
17	105	LLE	20" x 16"	2.22	261	580	653			303	673
18	104	LLE	20" x 16"	2.22	239	530	682			314	697
19	103	LLE	20" x 16"	2.22	239	530	677			274	608
20	102	LLE	20" x 16"	2.22	239	530	484			208	462
21	107	Hood	12"Ø	1.0	620	620	679			684	684
22	10	Hood	12"Ø	.785	764	600	659			1051	825

Project Name: VA Hospital – Building 70 – Animal Research Facility

System Name: 70-AHU-2 Exhaust Floor Number Ground / 1st

A I R D I S T R I B U T I O N T E S T S H E E T

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
23	109	Hood	12"Ø	.785	764	600	692			833	654
24	112	Hood	14"Ø	1.07	556	595	688			591	632
25	109	Hood	12"Ø	.785	764	600	643			1804	1416
26	111	LLE	20" x 16"	2.22	198	440	691		(1)	248	551
27	115	LLE	20" x 12"	1.0	345	345	341			378	378
28	116	LLE	20" x 12"	1.0	370	370	372			386	386
29	119	LLE	24" x 16"	2.67	203	540	598			336	897
30	131	EG	12" x 12"	1.0	250	250	214			180	180
31	132	EG	12" x 12"	1.0	190	190	202			203	203
32	134	EG	12" x 12"	1.0	190	190	121			133	133
33	130	LLE	14" x 12"	1.0	216	216	215			211	211
34	121	LLE	20" x 12"	1.67	234	390	516			293	489
35	125	LLE	20" x 12"	1.0	340	340	376			373	373
36	124	LLE	20" x 16"	2.22	171	380	351			148	329
37	122	Hood	12" x 12"	1.0	450	450	414			434	434
38	130	LLE	14" x 12"	1.0	390	390	764			275	275
39	139	LLE	20" x 16"	1.0	580	580	233			202	202
40	137	Hood	16" x 10"	1.11	579	643	488			692	768
40a	137	Opening	6"Ø	.196	-	-	217			1802	353
41	136	LLE	18" x 8"	1.0	535	535	300			290	290
42	139	LLE	20" x 16"	1.0	430	430	351			362	362
43	140	LLE	12" x 12"	1.0	0	0	51			51	51
44	141	LLE	20" x 16"	2.22	243	540	593			250	555
45	142	LLE	20" x 16"	2.22	243	540	577			296	657
46	143	LLE	20" x 16"	2.22	243	540	526			333	739

Project Name: VA Hospital – Building 70 – Animal Research Facility

System Name: AHU-3 Supply Floor Number 1st

A I R D I S T R I B U T I O N T E S T S H E E T

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
RH-7						550					388
1	167	LD	48"	1.0	550	550	429			388	388
RH-6						800					548
2	168	LD	36"	1.0	400	400	276			272	272
3	168	LD	36"	1.0	400	400	289			276	276
RH-8						540					359
4	166	LD	48"	1.0	540	540	397			359	359
RH-9						560					391
5	165	LD	48"	1.0	560	560	428			391	391
RH-10						560					611
6	Corridor	CD	24" x 24"	1.0	280	280	294			266	266
7	Corridor	CD	24" x 24"	1.0	280	280	349			345	345
RH-11						560					357
8	161	LD	48"	1.0	560	560	357			357	357
RH-12						550					374
9	162	LD	48"	1.0	550	550	382			374	374
RH-13						560					430
10	164	LD	48"	1.0	560	560	450			430	430
RH-14						3025					1667
11	163	LD	35" x 3" (4)	2.92	360	1050	648			211	616
12	163	LD	35" x 3" (4)	2.92	351	1025	526			174	508
13	163	LD	35" x 3" (4)	2.92	351	950	587			186	543

Remarks _____

Project Name: VA Hospital – Building 70 – Animal Research Facility

System Name: HRC-4 Exhaust Floor Number 1st

AIR DISTRIBUTION TEST SHEET

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
1	165	LLE	20" x 16"	2.22	270	600	575			233	517
2	166	LLE	20" x 16"	2.22	266	590	593			285	633
3	167	LLE	20" x 16"	2.22	275	610	599			244	542
4	168	LLE	36" x 22"	5.50	167	920	737			131	721
5	164	LLE	20" x 16"	2.22	275	610	553			237	526
6	163	LLE	36" x 22"	5.50	185	1020	710			129	710
7	163	LLE	12" x 10"	.83	361	300	424			501	411
8	163	LLE	36" x 22"	5.50	185	1020	985			170	935
9	163	LLE	18" x 12"	1.5	200	300	246			165	248
10	162	LLE	20" x 16"	2.22	270	600	557			205	455
11	161	LLE	20" x 16"	2.22	288	640	608			261	579

Project Name: VA Hospital – Building 70 – Animal Research Facility

System Name: AHU-3 Supply Biohazard Floor Number 1st

AIR DISTRIBUTION TEST SHEET

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
RH-5						600					409
1	173	LD	4'	1.0	600	600	495			409	409

RH-4						350					211
2	169	CD	16" x 16"	1.0	170	170	29			29	26
3	170	CD	16" x 16"	1.0	180	180	180			185	185
RH-3						480					477
4	Corridor	LD	29" x 3" (2)	1.21	397	480	520			394	477
RH-2						420					311
5	172	LD	3"	1.0	420	420	324			311	311
RH-1						390					282
6	171	LD	3'	1.0	390	390	322			282	282

System Name: AHU-3 Exhaust Biohazard Floor Number 1st

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
1	173	LLE	18" x 8"	1.0	650	650	681			640	640
2	172	LLE	18" x 8"	1.0	465	465	466			516	516
4	171	LLE	18" x 8"	1.0	440	440	487			478	478
5	***	Hood	12"Ø	.785	701	550	602			722	567
6	170	EG	10" x 10"	1.0	215	215	222			224	224

Building 102 (SPS)

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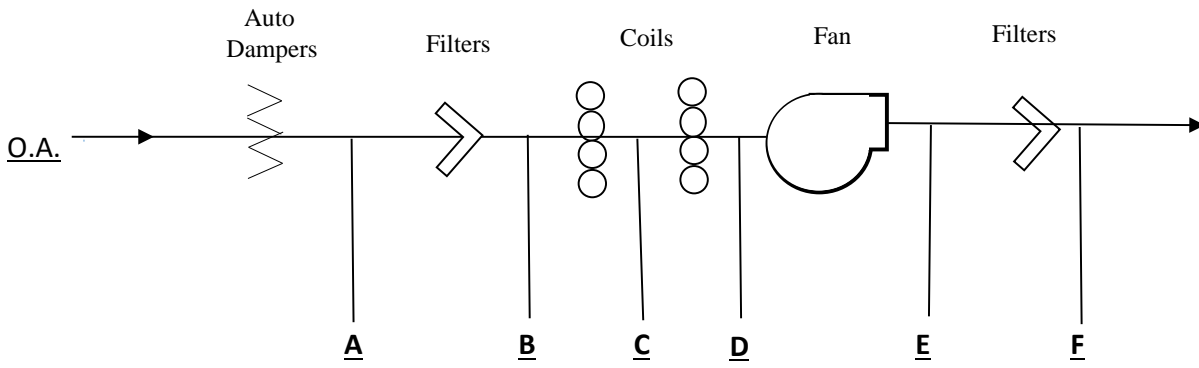
SYSTEM	AHU-135-1A	AHU-135-1B
Equipment Location	Roof	Roof
Area Served	SPS Building 102	SPS Building 102
Equipment Manufacturer	Twin City	Twin City
Model	270	270
Serial Number	14-503434-1-1	14-503434-2-1

	Specified	Actual	Specified	Actual
Total CFM - Fan	20,055 (1)	20,949	20,055 (1)	20,949 (1)
Total CFM - Outlet	20,320 (1)	20,949	20,320 (1)	20,949 (1)
R/A CFM	N.A.	-	N.A.	-
O/A CFM	20,055 (1)	20,949	20,055 (1)	20,949
Total Static Pressure (Total/External)	N.A.	See	N.A.	See
Inlet Pressure	N.A.	Profile	N.A.	Profile
Discharge Pressure	N.A.	Sheet	N.A.	Sheet
Fan RPM	N.A.	1,823	N.A.	1,823

	Specified	Actual	Specified	Actual
Motor Manufacturer	N.A.	Westinghouse	N.A.	Westinghouse
Motor HP/BHP	30.0	30.0	30.0	30.0
Phase	3 / 60	3 / 60	3 / 60	3 / 60
Voltage	230 / 460	230 (2)	230 / 460	230 (2)
Amperage	68.6 / 34.3	52.1 (2)	68.6 / 34.3	52.1 (2)
Motor RPM	1,770	1,726 (2)	1,770	1,726 (2)
Motor Service Factor / Frame #	N.A.	1.15 / 286T	N.A.	1.15 / 286T
Starter Heater Elements	VFD	58.5 HZ	VFD	58.5 HZ

Motor Sheave (Bush)	2B5V62 x (B x 1-7/8")	2B5V62 x (B x 1-7/8")
Fan Sheave (Bush)	2B5V58 x (B x 1-15/16")	2B5V58 x (B x 1-15/16")
(No. of) + Belt Size	(2) BX77	(2) BX77

Remarks: Static Pressure set point = 2.15" (1) Total of both fans. (2) At VFD. Fans tested to 58.5 HZ



Condition	A	B	C	D	E	Supply Fan Total	F
06/03/19	-0.80	-1.44	-2.23	-3.36	+3.25	6.61	+3.05

Box Number	Room Served	Design CFM		Multiplier	Final CFM	
		Min	Max		Min	Max
SVAV-M102	M102	800	800	720	818	818
SVAV-M101-1	M101	400	400	425	403	403
SVAV-100	100	1000	1000	683	986	986
SVAV-166	166	260	260	405	247	247
SVAV-101	101	2400	2400	2009	2445	2445
SVAV-112	112	375	375	441	463	463
SVAV-177	177	230	230	400	241	241
SVAV-174	174	230	230	393	220	220
SVAV-175	175	250	250	741	242	242
SVAV-178	178	385	385	385	369	369
SVAV-140	140	730	730	1105	940	940
SVAV-135	135	1705	1705	1455	1914	1914
SVAV-131-1	131	2200	2200	3000	2133	2133

SVAV-131-2	131	2200	2200	2732	1978	1978
SVAV-120	120	6565	6565	5140	6212	6212
SVAV-164	164	200	200	414	200	200
SVAV-130	130	375	375	410	467	467
SVAV-150	144, 178	825	825	829	671	671

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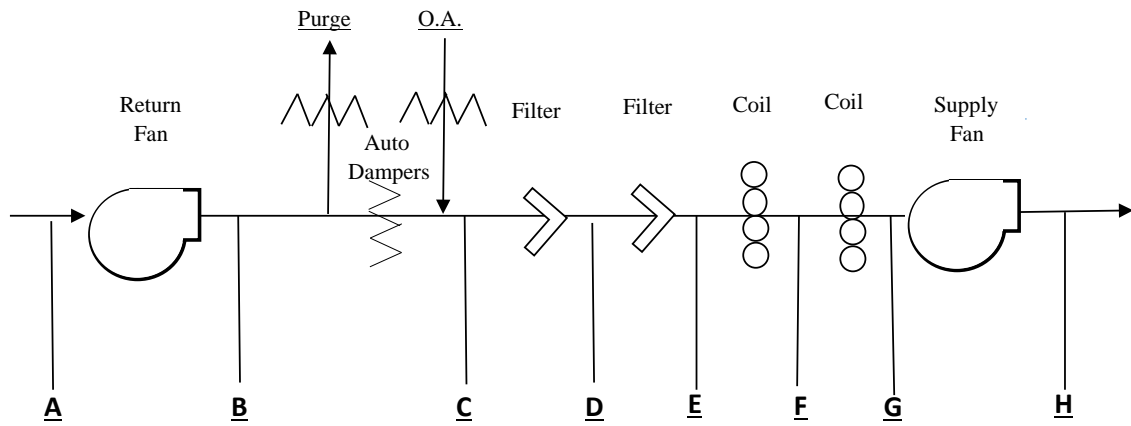
SYSTEM	RTU-166A	RF-166A
Equipment Location	Roof	Roof
Area Served	Office Building 102	Office Building 102
Equipment Manufacturer	York	York
Model	XTO-036X054-BBHG017A	XTO-036X054-BBHG017A
Serial Number	ACBMXT0183	ACBMXT0183

	Specified	Actual	Specified	Actual
Total CFM - Fan	3,500	3,589	3,500	2,317
Total CFM - Outlet	3,380	3,589	3,380	2,317
R/A CFM	3,200	-	3,080	-
O/A CFM	300	-	Purge 420	-
Total Static Pressure (Total/External)	0.60"	See	0.60"	See
Inlet Pressure	N.A.	Profile	N.A.	Profile
Discharge Pressure	N.A.	Sheet	N.A.	Sheet
Fan RPM	2,000	1,320	1,300	1,310

	Specified	Actual	Specified	Actual
Motor Manufacturer	N.A.	Baldor	N.A.	Westinghouse
Motor HP/BHP	5.0	5.0	3.0	3.0
Phase	3/60	3/60	3/60	3/60
Voltage	208-230 / 460	208 / 208 / 208	230 / 460	217
Amperage	14.0-13.2 / 6.6	10.7	8.6 / 4.3	5.1
Motor RPM	1,750	1,745	1,755	1,780
Motor Service Factor / Frame #	N.A.	1.15 / 184T	N.A.	1.15 / 182T
Starter Heater Elements	VFD	60 HZ	VFD	60 HZ

Motor Sheave (Bush)	1AK56 x 1-1/8"	1BK34 x 1-1/8"
Fan Sheave (Bush)	1AK64 x 1"	1BK50 x 3/4"
(No. of) + Belt Size	(1) AX44	(1) BX37

Remarks:



Condition	A	B	RF Total	C	D	E	F	G	H	SF Total
100% O.A.	-.31	+.54	.85	-.32	N.A.	-.58	-.71	-1.92	+1.42	3.34

Remarks:

Box Number	Room Served	Design CFM		Multiplier	Final CFM	
		Min	Max		Min	Max
VAV-171	171	90	300	2.52	96	329
VAV-172	172	75	240	2.44	78	248
VAV-173	173	75	240	2.48	77	256
VAV-160	160	655	1700	3.49	668	1733
VAV-170	170	120	500	2.08	124	509
VAV-161	161	150	500	2.20	154	514

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
VAV-171						300					329
1	171	CD-2	24" x 24"	1.0	150	150				163	163
2	171	CD-2	24" x 24"	1.0	150	150				166	166
VAV-172						240					248
3	172	CD-2	24" x 24"	1.0	120	120				123	123
4	172	CD-2	24" x 24"	1.0	120	120				125	125
VAV-173						240					256
5	173	CD-2	24" x 24"	1.0	120	120				127	127
6	173	CD-2	24" x 24"	1.0	120	120				129	129
VAV-160						1700					1733
7	160	CD-4	24" x 24"	1.0	250	250				270	270
8	160	CD-4	24" x 24"	1.0	300	300				296	296
9	160	CD-4	24" x 24"	1.0	300	300				304	304
10	160	CD-4	24" x 24"	1.0	250	250				246	246
11	160	CD-4	24" x 24"	1.0	300	300				298	298
12	160	CD-4	24" x 24"	1.0	300	300				319	319
VAV-170						500					509
13	170	CD-1	24" x 24"	1.0	125	125				126	126
14	167	CD-1	24" x 24"	1.0	125	125				130	130
15	167	CD-1	24" x 24"	1.0	125	125				132	132
16	161A	CD-1	24" x 24"	1.0	125	125				121	121
VAV-161						500					514
17	161	CD-5	24" x 24"	1.0	500	500				514	514

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
						3380					2317
1	171	RG-2	24" x 24"	1.05	286	300	217			270	284
2	173	RG-2	24" x 24"	1.05	229	240	110			162	170
3	170	RG-1	24" x 24"	1.05	96	100	60			82	86
4	167	RG-2	24" x 24"	1.05	190	200	101			133	140

5	161A	RG-1	24" x 24"	1.05	95	100	49			66	69
6	161	RG-2	24" x 24"	1.10	454	500	261			380	418
7	Passage	RG-2	24" x 24"	1.10	773	850	397			419	461
8	Passage	RG-2	24" x 24"	1.10	773	850	181			455	501
9	172	RG-2	24" x 24"	1.05	229	240	125			179	188

EXHAUST FAN DATA SHEET

SYSTEM	EF-M102A	
Equipment Location	E70	
Area Served	E70	
Equipment Manufacturer	Intertek	
Model	DR50	
Serial Number	121346	

	Specified	Actual	Specified	Actual
Total CFM - Fan	125	133		
Total CFM - Outlet	125	-		
Total Static Pressure (Total/External)	3.70"	5.14		
Inlet Pressure	N.A.	-4.33		
Discharge Pressure	N.A.	-.81"		
Fan RPM	1,750	-		

	Specified	Actual	Specified	Actual
Motor Manufacturer	N.A.	Baldor		
Motor HP/BHP	1.0	1.0		
Phase	1/60	1/60		
Voltage	115 / 230	205		
Amperage	12.8 / 6.4	3.9		
Motor RPM	1,725	-		
Motor Service Factor / Frame #	N.A.	1.15 / 143T		

Starter Heater Elements	ETO	-		
OL Heater / Rating	ABB	Adj. Set @ 6.8		

Motor Sheave (Bush)	Direct	
Fan Sheave (Bush)	Drive	
(No. of) + Belt Size	-	

Remarks:

E X H A U S T F A N D A T A S H E E T

SYSTEM	EF-117-1	
Equipment Location	Roof	
Area Served	131	
Equipment Manufacturer	Greenheck	
Model	SWB-224-50-CW-BAU-X	
Serial Number	13559178 1403	

	Specified	Actual	Specified	Actual
Total CFM - Fan	9,500	4,608		
Total CFM - Outlet	4,800	4,608		
Total Static Pressure (Total/External)	1.25"	1.72"		
Inlet Pressure	N.A.	-1.68		
Discharge Pressure	N.A.	+.04"		
Fan RPM	1,500	935		

	Specified	Actual	Specified	Actual
Motor Manufacturer	N.A.	Baldor		
Motor HP/BHP	5.0	5.0		
Phase	3/60	3/60		
Voltage	208-230 / 460	159 (1)		
Amperage	14.0-13.2 / 6.6	8.0 (1)		
Motor RPM	1,750	1,350		
Motor Service Factor / Frame #	N.A.	1.15 / 184T		
Starter Heater Elements	VFD	46 HZ		
OL Heater / Rating	-	-		

Motor Sheave (Bush)	1VP56 x 1-1/8"	
Fan Sheave (Bush)	7-1/8" OD x (SDS x 1-1/2")	
(No. of) + Belt Size	(1) 1 BX60	

Terminal Number	Room Number	Terminal		Factor	Design		FPM or CFM		K-Factor	Final	
		Type	Size		FPM	CFM	Test 1	Test 2		FPM	CFM
EVAV-117-1						2400			2197		2223
1	131	Hood	36" x 12"	3.0	400	1200	390			390	1170
2	131	Hood	36" x 12"	3.0	400	1200	351			351	1053
EVAV-117-2						2400			2109		2385
3	131	Hood	36" x 12"	3.0	400	1200	379			379	1137
4	131	Hood	36" x 12"	3.0	400	1200	416			416	1248
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Project Name: Zablocki VAMC Expand SPS Building 102, June 2019

EXHAUST FAN DATA SHEET

SYSTEM	EF-120-1	
Equipment Location	Roof	
Area Served	120	
Equipment Manufacturer	Greenheck	
Model	SWB-224-50-CW-BAU-X	
Serial Number	13559179 1403	

	Specified	Actual	Specified	Actual
Total CFM - Fan	9,500	4,237		

Total CFM - Outlet	4,800	4,237		
Total Static Pressure (Total/External)	1.25"	1.71"		
Inlet Pressure	N.A.	-1.67"		
Discharge Pressure	N.A.	+0.04"		
Fan RPM	1,500	885		

	Specified	Actual	Specified	Actual
Motor Manufacturer	N.A.	Baldor		
Motor HP/BHP	5.0	5.0		
Phase	3/60	3/60		
Voltage	208-230 / 460	150 (1)		
Amperage	14.0-13.2 / 6.6	7.8 (1)		
Motor RPM	1,750	1,254		
Motor Service Factor / Frame #	N.A.	1.15 / 184T		
Starter Heater Elements	M101	-		
OL Heater / Rating	Eaton	VFD		

Motor Sheave (Bush)	1VP56 x 1-1/8"	
Fan Sheave (Bush)	7-1/8" OD x (SDS x 1-1/2")	
(No. of) + Belt Size	(1) 1 BX60	

Remarks: (1) At VFD

Fan tested at 43 HZ

Date 06/03/19

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Project Name: Zablocki VAMC Expand SPS Building 102, June 2019

System Name: EF-120-2 Floor Number 1st

AIR DISTRIBUTION TEST

T SHEET

Terminal		Terminal	Factor	Design	FPM or CFM	K-Factor	Final
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SYSTEM				EF-130-1							
Equipment Location				Roof							
Area Served				M102							
Equipment Manufacturer				Greenheck							
Model				SWB-206-7-CW-BAU-X							
Serial Number				13579616 1403							
Number	Room Number	Type	Size		FPM	CFM	Test 1	Test 2		FPM	CFM
EVAV-120-2						4800			4695		4237
1	120	Hood	36 x 12	3.817	629	2400	2210			557	2126
2	120	Hood	36 x 12	3.817	629	2400	2180			553	2111

EXHAUST FAN DATA SHEET

	Specified	Actual	Specified	Actual
Total CFM - Fan	725	758		
Total CFM - Outlet	700	758		
Total Static Pressure (Total/External)	1.00"	1.25"		
Inlet Pressure	N.A.	-.96"		
Discharge Pressure	N.A.	+0.29"		
Fan RPM	1,500	2,625		

	Specified	Actual	Specified	Actual
Motor Manufacturer	N.A.	WEG		

Motor HP/BHP	3/4	3/4		
Phase	3/60	3/60		
Voltage	208-230 / 460	208 (1)		
Amperage	2.65-2.40 / 1.20	2.4 (1)		
Motor RPM	1,740	1,740		
Motor Service Factor / Frame #	N.A.	1.25 / B56		
Starter Heater Elements	M101	-		
OL Heater / Rating	VFD	60 HZ		

Motor Sheave (Bush)	1 VP44 x 5/8"	
Fan Sheave (Bush)	1AK26 x 3/4"	
(No. of) + Belt Size	(1) AX25	

Remarks: (1) At VFD

Date 06/03/19

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Project Name: Zablocki VAMC Expand SPS Building 102, June 2019

System Name: EF-130-1 Floor Number 1st

AIR DISTRIBUTION TEST SHEET

Terminal Number	Room Number	Terminal		Factor	Design		FPM or CFM		K-Factor	Final	
		Type	Size		FPM	CFM	Test 1	Test 2		FPM	CFM
EVAV-130						700				610	758
1	M102A	EG-5	24" x 24"	1.05	400	400				578	607
2	130	EG-5	24" x 24"	1.05	175	175				36	38
3	M102A	OED	3.5"	0.067	896	60				880	59
4	M102A	OED	3.5"	0.067	896	60				810	54

Date 06/03/19

Project Name: Zablocki VAMC Expand SPS Building 102, June 2019**EXHAUST FAN DATA SHEET**

SYSTEM	EF-135-1	EF-135-2
Equipment Location	Roof	Roof
Area Served	General Exhaust	General Exhaust
Equipment Manufacturer	Greenheck	Greenheck
Model	SWB-327-75-CW-BAU-X	SWB-327-75-CW-BAU-X
Serial Number	13560584 1403	13560585 1403

	Specified	Actual	Specified	Actual
Total CFM - Fan	9,395 (1)	12,070 (1)	9,395 (1)	12,070 (1)
Total CFM - Outlet	10,460 (1)	11,149 (1)	10,460 (1)	11,149 (1)
Total Static Pressure (Total/External)	3.00"	See	3.00"	See
Inlet Pressure	N.A.	Profile	N.A.	Profile
Discharge Pressure	N.A.	Sheet	N.A.	Sheet
Fan RPM	1,500	1,350	1,500	935

	Specified	Actual	Specified	Actual
Motor Manufacturer	N.A.	Baldor	N.A.	Baldor
Motor HP/BHP	7.5	7.5	7.5	7.5
Phase	3/60	3/60	3/60	3/60
Voltage	208-230 / 460	208 (2)	208-230 / 460	208 (2)
Amperage	20.4-19.4 / 9.7	13.1 (2)	20.4-19.4 / 9.7	13.1 (2)
Motor RPM	1,770	1,782 (2)	1,770	1,782 (2)
Motor Service Factor / Frame #	N.A.	1.15 / 213T	N.A.	1.15 / 213T
Starter Heater Elements	M101	-	M101	-
OL Heater / Rating	Eaton	VFD	Eaton	VFD

Motor Sheave	(Bush)	2VP56 x 1-3/8"	2VP56 x 1-3/8"
Fan Sheave	(Bush)	2B74SK x (SK x 1-11/16")	2B74SK x (SK x 1-11/16")

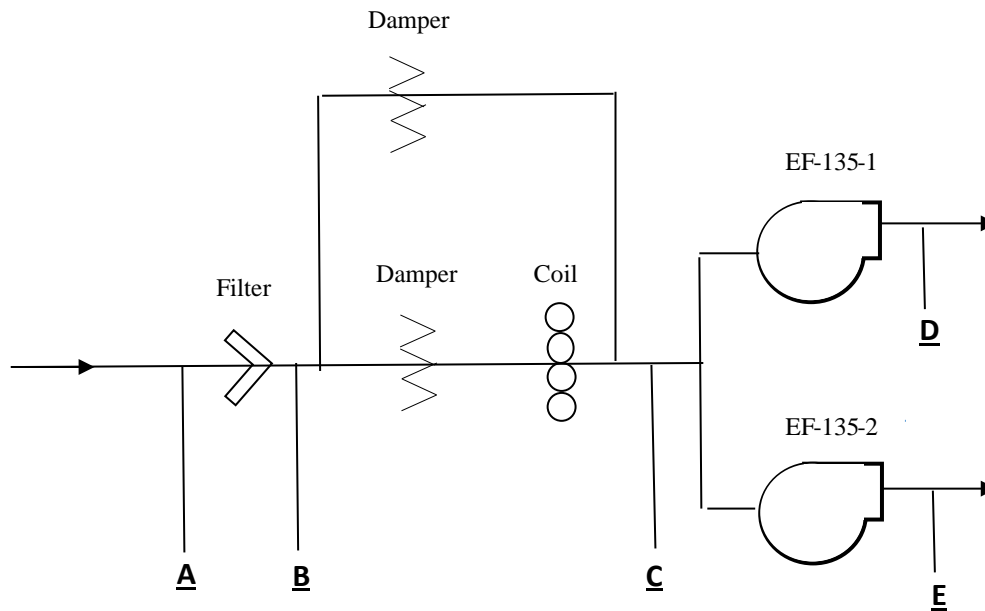
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Project Name: Zablocki VAMC Expand SPS Building 102, June 2019

S T A T I C P R O F I L E S H E E T

System EF-135-1 & EF-135-2



Condition	A	B	C	D	E	Exhaust Fan Total
EF-135-1	-3.36"	-3.40"	-3.68"	+.01"	-	3.69"
EF-135-2	-3.34"	-3.38"	-3.66"	-	+.01"	3.67"

Remarks: SP -2.75

Date 06/03/19

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Project Name: Zablocki VAMC Expand SPS Building 102, June 2019

System Name: EF-135-1 and EF-135-2 Floor Number 1st

TERMINAL UNIT TEST S

HEET

Box Number	Room Served	Design CFM		Multiplier	Final CFM	
		Min	Max		Min	Max
EVAV-100	160	265	265	418	270	270
EVAV-166	166	460	460	399	480	480
EVAV-101	101	3800	3800	2109	3983	3983
EVAV-112	112	725	725	691	1104	1104
EVAV-177	177	200	200	401	244	244
EVAV-175	175	490	490	394	522	522
EVAV-178	150	185	185	390	189	189
EVAV-140	140	900	900	681	910	910
EVAV-135	135	1070	1070	1003	1234	1234
EVAV-120-1	120	465	465	663	110	110
EVAV-M102	M102	1000	1000	1017	1119	1119
EVAV-150	150	900	900	990	984	984

System Name: EF-135-1 & EF-135-2

Floor Number 1st**AIR DISTRIBUTION TEST SHEET**

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
EVAV-100						265					270
1	100	EG-2	24" x 24"	1.05	157	165				155	163
2	100A	EG-1	14" x 14"	1.05	95	100				102	107
EVAV-166						460					480
3	165	EG-1	16" x 16"	1.05	95	100				98	103
4	165A	EG-4	12" x 6"	1.05	124	130				122	128
5	166	EG-1	16" x 16"	1.05	95	100				102	107
6	166A	EG-4	12" x 6"	1.05	124	130				135	142
EVAV-101						3800					3983
7	101	EG-2	24" x 24"	1.05	881	925				732	769
8	101	EG-2	24" x 24"	1.05	881	925				890	935
9	101	EG-2	24" x 24"	1.05	881	925				1019	1070
10	101	EG-2	24" x 24"	1.05	881	925				952	1000
11	102HC	EG-1	16" x 10"	1.05	95	100				199	209
EVAV-112						725			(1)		1104
12	116A	EG-1	16" x 16"	1.05	48	50				67	70
13	116	EG-2	24" x 24"	1.05	238	250				395	415
14	114	EG-1	16" x 16"	1.05	233	245				306	321
15	112	EG-1	16" x 16"	1.05	171	180				284	298
EVAV-177						200					244
16	177	EG-2	24" x 24"	1.05	190	200				232	244

(1) Set point 775

Zablocki VAMC Expand SPS Building 102, June 2019Date 06/03/19

Project Name:

System Name: EF-135-1 and EF-135-2Floor Number 1st**AIR DISTRIBUTION TEST SHEET**

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
EVAV-175						490					522
17	175A	EG-4	12" x 6"	1.05	119	125				121	127
18	175	EG-1	16" x 16"	1.05	114	120				128	134
19	176	EG-1	16" x 16"	1.05	114	120				122	128
20	176A	EG-4	12" x 6"	1.05	119	125				127	133
EVAV-178						185					189
21	178	EG-2	24" x 24"	1.05	176	185				180	189
EVAV-140						900					910
22	147	EG-2	24" x 24"	1.05	286	300				265	278
23	142	EG-1	16" x 16"	1.05	286	300				249	261
24	140	EG-2	24" x 24"	1.05	286	300				353	371
EVAV-135						1070					1234
25	135	EG-2	24" x 24"	1.05	343	360				396	416
26	135	EG-2	24" x 24"	1.05	338	355				402	422
27	135	EG-2	24" x 24"	1.05	338	355				377	396

Remarks

EVAV-120-1						100					110
28	120	EG-2	24" x 24"	1.05	38	40				42	44
29	121HC	EG-1	24" x 24"	1.05	24	25				25	26
30	120	EG-2	24" x 24"	1.05	33	35				38	40
EVAV-M102						1000					1119
31	M102	EG-5	24" x 24"	1.05	762	800				866	909
31A	100FC	EG-1	8"Ø	.349	573	200				603	210

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Project Name: Zablocki VAMC Expand SPS Building 102, June 2019

System Name: EF-135-1 & EF-135-2 Floor Number 1st

A I R D I S T R I B U T I O N T E S T S H E E T

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
EVAV-150						900					984
32	157	EG-1	16" x 16"	1.05	71	75				75	79
33	150	EG-2	24" x 24"	1.05	500	525				561	589
34	150A	EG-1	16" x 16"	1.05	71	75				83	87
35	145	EG-1	16" x 16"	1.05	71	75				77	81
36	146	EG-1	16" x 16"	1.05	143	150				141	148

Building 111

ICU

Room Number	Use	Supply CFM		Exhaust CFM		Room Volume FT	Air Changes Per Hr		Room Pressure
		Design	Actual	Design	Actual		Design	Actual	
2322	ICU-1	275	261	225	201	1989	8.3	7.9	POS (2)
2326	ICU-2	250	233	225	179	1708	8.8	8.2	POS (2)
2324	ICU-3	275	265	225	156	1989	8.3	8.0	POS (2)
2328	ICU-4	250	265	225	163	1764	8.5	9.0	POS (2)
2329	ICU-5	275	258	225	148	1872	8.8	8.3	POS (2)
2331	ICU-6 (ISO.)	275	262	680	588	2223	7.4	15.9	POS/NEG
2514	ICU-7 (ISO.)	275	191	225	609	1843	9.0	19.8	POS/NEG (3)
2510	ICU-8	250	242	225	212	2016	7.4	7.2	POS
2516	ICU-9	275	253	225	181	1764	9.4	8.6	POS
2512	ICU-10	250	246	225	176	1836	8.2	8.0	POS
2520	ICU-11	275	263	225	174	1638	10.1	9.6	POS
2517	ICU-12	250	236	225	206	1944	7.7	7.3	POS
2522	ICU-13	275	244	225	145	1521	10.8	9.6	POS
2519	ICU-14	250	237	225	163	1728	8.7	8.2	POS
2525	ICU-15	275	257	225	180	1638	10.1	9.4	POS
2527	ICU-16	330	310	280	224	2268	8.7	8.2	POS
2528	ICU-17	275	256	225	175	1512	10.9	10.2	POS
2530	ICU-18	275	252	225	184	1485	11.1	10.2	POS
2502	ISO VEST.	75	82	-		392	11.5	12.6	POS
2333	SOILED UTIL.	75	78	160	141	640	15.0	13.2	NEG (1)
2524	SOILED UTIL.	100	91	140	147	600	14.0	14.7	NEG (1)

Morgue

Box Number	Use	Supply CFM		Exhaust CFM		Room Volume FT³	Air Changes Per Hr		Room Pressure
		Design	Actual	Design	Actual		Design	Actual	
2641	Morgue	1340	1124	1520	1282	6270	14.5	12.3	NEG

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
Supply						1340					1124
1	Morgue	CD	24" x 24"	1.0	335	335				262	262
2	Morgue	CD	24" x 24"	1.0	335	335				309	309
3	Morgue	CD	24" x 24"	1.0	335	335				285	285
4	Morgue	CD	24" x 24"	1.0	335	335				268	268
Exhaust						1520					1282
1	Morgue	EG	18" x 12"	1.0	450	450				206	206
2	Morgue	EG	12" x 12"	1.0	310	310				213	213
3	Morgue	Hood	38" x 28"	7.38	100	740				117	863

Cath Lab

Room Number	Use	Supply CFM		Exhaust CFM		Room Volume FT	Air Changes Per Hr		Room Pressure
		Design	Actual	Design	Actual		Design	Actual	
5503	Cath Lab	1400	1583	1200	708	4500	20.7	21.1	POS

[illegible]

APC

Room Number	Use	Supply CFM		Exhaust CFM		Room Volume FT	Air Changes Per Hr		Room Pressure
		Design	Actual	Design	Actual		Design	Actual	
2171	Procedure 1	780	777	640	387	2825	15.7	16.5	POS
2167	Procedure 2	740	739	630	212	2860	15.5	15.5	POS
2163	Procedure 3	700	687	600	150	2580	16.3	16.0	POS
2161	Procedure 4	800	918	700	625	3275	14.7	16.8	POS
2155	OR-8	960	980	810	706	3120	18.5	18.8	POS
2153	Cysto Procedure	1130	1212	885	757	4080	20.0	17.8	POS
2144	Exam	65	122	125	102	748	10.0	9.8	POS

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
2	2119	CD	9" x 9"	1.0	120	120	114			115	115
3	2118	CD	9" x 9"	1.0	120	120	110			111	111
4	2107	CD	12" x 12"	1.0	275	275	230			225	225
5	2107	CD	12" x 12"	1.0	200	200	169			132	132
6	2107	CD	12" x 12"	1.0	200	200	178			178	178
7	2117	CD	9" x 9"	1.0	120	120	99			105	105
8	2261	CD	24" x 24"	1.0	150	150	147			262	262
9	2115	CD	9" x 9"	1.0	120	120	115			110	110
10	2116	CD	9" x 9"	1.0	120	120	117			111	111
11	2260	CD	12" x 12"	1.0	520	520	376			282	282
12	C2A12	CD	24" x 24"	1.0	200	200	210			210	210
13	Sterilizer	CD	24" x 24"	1.0	360	360	403			343	343
14	2114	CD	9" x 9"	1.0	120	120	114			110	110
15	2113	CD	9" x 9"	1.0	120	120	110			115	115
16	2121	CD	6" x 6"	1.0	100	100	96			91	91

17	2122	CD	6" x 6"	1.0	100	100	91			90	90
18	2123	CD	6" x 6"	1.0	100	100	103			103	103
19	2112	CD	9" x 9"	1.0	120	120	107			201	201
20	2108	CD	9" x 9"	1.0	165	165	160			155	155
21	C2A11	CD	24" x 24"	1.0	200	200	147			150	150
22	C2A11	CD	24" x 24"	1.0	165	165	236			215	215
23	C2A12	CD	24" x 24"	1.0	200	200	94			209	209

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
24	A211C	CD	6" x 6"	1.0	100	100	N/I			(1)	(1)
25	A211A	CD	30" x 30"	1.0	580	580	534			(1)	(1)
26	2102	CD	6" x 6"	1.0	100	100	102			92	92
27	2102	CD	6" x 6"	1.0	100	100	91			96	96
28	2102	CD	6" x 6"	1.0	100	100	103			95	95
29	2102	CD	6" x 6"	1.0	100	100	105			93	93
30	2178	CD	9" x 9"	1.0	160	160	158			147	147
31	2101	CD	6" x 6"	1.0	75	75	84			77	77
32	Hallway	CD	9" x 9"	1.0	160	160	154			152	152
33	2101	CD	12" x 12"	1.0	240	240	224			229	229
34	2100	CD	6" x 6"	1.0	100	100	99			97	97
35	2100	CD	6" x 6"	1.0	100	100	95			98	98
36	2100	CD	6" x 6"	1.0	100	100	123			92	92
37	2100	CD	6" x 6"	1.0	100	100	112			93	93
38	2124	CD	6" x 6"	1.0	100	100	100			101	101
39	2125	CD	6" x 6"	1.0	100	100	104			105	105
40	2126	CD	6" x 6"	1.0	100	100	95			93	93
41	Corridor	CD	12" x 12"	1.0	290	290	255			254	254
42	2128	CD	6" x 6"	1.0	75	75	67			82	82

43	Corridor	CD	12" x 12"	1.0	240	240	232			232	232
44	2133	CD	12" x 12"	1.0	110	110	103			104	104
45	2177	CD	6" x 6"	1.0	100	100	96			97	97
46	2135	CD	6" x 6"	1.0	150	150	115			137	137

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
47	2181	CD	12" x 12"	1.0	285	285	288			283	283
48	2181	CD	12" x 12"	1.0	285	285	276			277	277
49	2180	CD	6" x 6"	1.0	50	50	45			53	53
50	2180	CD	15" x 15"	1.0	480	480	450			473	473
51	2181	CD	12" x 12"	1.0	200	200	200			196	196
54	2140	CD	9" x 9"	1.0	120	120	134			126	126
55	2144	CD	6" x 6"	1.0	65	65	125			122	122
56	2143	CD	6" x 6"	1.0	60	60	N.A.			107	107
57	2172	CD	6" x 6"	1.0	80	80	87			85	85
58	Nurse Station	CD	12" x 12"	1.0	350	350	413			376	376
59	2172A	CD	6" x 6"	1.0	80	80	103			97	97
60	2146	CD	12" x 12"	1.0	225	225	258			252	252
61	2148	CD	9" x 9"	1.0	200	200	229			241	241
62	2166B	CD	12" x 12"	1.0	150	150	32			156	156
62a	2168B	CD	6" x 6"	1.0	80	80	0			88	88
63	2166A	CD	12" x 12"	1.0	150	150	39			139	139
63a	2168A	CD	6" x 6"	1.0	80	80	35			152	152
64	Corridor	CD	12" x 12"	1.0	265	265	279			254	254
65	Corridor	CD	12" x 12"	1.0	265	265	290			388	388
66	2153	CD	15" x 15"	1.0	450	450	485			483	483
67	2153	CD	15" x 15"	1.0	450	450	522			478	478
68	2153	CD	12" x 12"	1.0	230	230	246			251	251

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
69	2155	CD	48" x 24"	1.0	120	120	154			113	113
70	2155	CD	48" x 24"	1.0	120	120	150			147	147
71	2155	CD	48" x 24"	1.0	120	120	158			125	125
72	2155	CD	48" x 24"	1.0	120	120	150			114	114
73	2155	CD	48" x 24"	1.0	120	120	141			106	106
74	2155	CD	48" x 24"	1.0	120	120	150			115	115
75	2155	CD	48" x 24"	1.0	120	120	154			132	132
76	2155	CD	48" x 24"	1.0	120	120	145			128	128
77	Corridor	CD	12" x 12"	1.0	265	265	261			278	278
79	Corridor	CD	12" x 12"	1.0	265	265	272			259	259
80	2141	CD	9" x 9"	1.0	135	135	142			151	151
81	2174	CD	9" x 9"	1.0	200	200	207			203	203
82	2173	CD	9" x 9"	1.0	110	110	122			119	119
83	2181	CD	12" x 12"	1.0	220	220	242			229	229
84	2171	CD	12" x 12"	1.0	370	370	391			363	363
85	2171	CD	12" x 12"	1.0	370	370	376			414	414
86	2167	CD	12" x 12"	1.0	370	370	382			359	359
87	2167	CD	12" x 12"	1.0	370	370	373			380	380
88	2163	CD	12" x 12"	1.0	350	350	352			327	327
89	2163	CD	12" x 12"	1.0	350	350	359			360	360
90	2161	CD	12" x 12"	1.0	300	300	314			370	370
91	2161	CD	12" x 12"	1.0	300	300	314			327	327
92	2161	CD	9" x 9"	1.0	300	300	214			221	221

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
1	2115	RG	8" x 8"	1.0	120	120	60			52	52
2	2116	RG	8" x 8"	1.0	120	120	64			75	75
3	2260	RG	24" x 24"	1.0	520	520	368			219	219
4	C2A12	RG	24" x 24"	1.0	400	400	376			354	354
5	Nurses	RG	18" x 18"	1.0	550	550	153		(1)	121	121
6	2114	RG	8" x 8"	1.0	120	120	70			50	50
7	2261	RG	10" x 10"	1.0	85	85	146			127	127
8	2113	RG	8" x 8"	1.0	120	120	69			53	53
9	2121	RG	6" x 6"	1.0	100	100	66			55	55
10	2122	RG	6" x 6"	1.0	100	100	75			68	68
11	Corridor	RG	18" x 18"	1.0	550	550	332			330	330
12	2102	RG	14" x 16"	1.0	400	400	267			283	283
13	2100	RG	14" x 16"	1.0	400	400	287			294	294
14	2180A	RG	16" x 16"	1.0	470	470	500			253	253
15	2181	RG	18" x 18"	1.0	570	570	379			387	387
16	Corridor	RG	10" x 10"	1.0	200	200	129			148	148
17	2174	RG	10" x 10"	1.0	200	200	125			130	130
18	2141	RG	10" x 8"	1.0	135	135	87			92	92
19	2181	RG	10" x 12"	1.0	220	220	164			178	178
20	2173	RG	8" x 8"	1.0	110	110	95			104	104
21	2118	RG	8" x 8"	1.0	120	120	63			46	46
22	2119	RG	8" x 8"	1.0	120	120	68			55	55

(1) Loud if opened to a greater air volume.

Angio

Room Number	Use	Supply CFM		Exhaust CFM		Room Volume FT	Air Changes Per Hr		Room Pressure
		Design	Actual	Design	Actual		Design	Actual	
2453	Angio Room 1	1650	2100	1020	1502	4662	15.4	27.0	POS

2453	Angio Control 1	215	209	250	285	1296	11.6	13.2	NEG
2438	Angio Room 2	1650	1648	1020	967	4662	15.4	21.2	POS
2438	Angio Control 2	215	246	250	319	1296	11.6	14.8	NEG

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
Supply						1200					2100
1	Angio 1-2453	CD	24" x 24"	1.0	120	120				182	182
2	Angio 1-2453	CD	24" x 24"	1.0	120	120				122	122
3	Angio 1-2453	CD	24" x 24"	1.0	120	120				258	258
4	Angio 1-2453	CD	24" x 24"	1.0	120	120				141	141
5	Angio 1-2453	CD	24" x 24"	1.0	120	120				168	168
6	Angio 1-2453	CD	24" x 24"	1.0	120	120				177	177
7	Angio 1-2453	CD	24" x 24"	1.0	120	120				181	181
8	Angio 1-2453	CD	24" x 24"	1.0	120	120				184	184
9	Angio 1-2453	CD	24" x 24"	1.0	120	120				329	329
10	Angio 1-2453	CD	24" x 24"	1.0	120	120				358	358
11	Control Rm	CD	24" x 24"	1.0	215	215				209	209
Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
Exhaust											1960
1	Angio 1	EG	12" x 12"	1.0	255	255	385			372	372
2	Angio 1	LLE	24" x 16"	1.0	255	255	374			360	360
3	Angio 1	EG	12" x 12"	1.0	255	255	349			341	341
4	Soiled Utility	EG	10" x 8"	1.0	140	140	200			173	173
5	Control Rm	EG	14" x 14"	1.0	250	250	321			285	285

6	Angio 1	LLE	24" x 16"	1.0	255	255	470			429	429

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
Supply						1650					1648
1	Angio 2	CD	24" x 24"	1.0	100	100				146	146
2	Angio 2	CD	24" x 24"	1.0	100	100				133	133
3	Angio 2	CD	24" x 24"	1.0	100	100				156	156
4	Angio 2	CD	24" x 24"	1.0	100	100				153	153
5	Angio 2	CD	24" x 24"	1.0	100	100				140	140
6	Angio 2	CD	24" x 24"	1.0	100	100				162	162
7	Angio 2	CD	24" x 24"	1.0	100	100				141	141
8	Angio 2	CD	24" x 24"	1.0	100	100				143	143
9	Angio 2	CD	24" x 24"	1.0	100	100				136	136
10	Angio 2	CD	24" x 24"	1.0	100	100				129	129
11	Angio 2	CD	24" x 24"	1.0	100	100				134	134
12	Angio 2	CD	24" x 24"	1.0	100	100				75	75
13	Control Rm	CD	24" x 24"	1.0	215	215				246	246
Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
Exhaust						1250					1286
1	Angio 2	LLE	14" x 14"	1.0	315	315				299	299
2	Angio 2	EG	14" x 14"	1.0	315	315				193	193
3	Angio 2	LLE	14" x 14"	1.0	310	310				224	224
4	Angio 2	EG	14" x 14"	1.0	310	310				251	251
5	Control Rm	EG	24" x 24"	1.0	250	250				319	319

Chemical Lab 2600 Area

Room Number	Use	Supply CFM		Exhaust CFM		Room Volume FT	Air Changes Per Hr		Room Pressure
		Design	Actual	Design	Actual		Design	Actual	
2600	Chem Lab	5720	6694	N.A.	5709	27828	12.3	14.4	POS

Box Number	Room Served	Box Size	Design CFM		K-Factor	Damper Position	Final CFM	
			Min	Max			Min	Max
VAV-1	2600	16"	500	2610	1.66	100%	511	2995
VAV-2	2600	16"	500	2610	1.58	100%	515	3180
VAV-3	2600D	6"	30	200	.77	50%	31	206
VAV-5	2600C	6"	60	200	1.43	70%	63	216
VAV-6	2600	6"	100	500	.48	70%	101	519

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
VAV-1						2610					2995
1	2600	CD	24" x 24"	1.0	435	435				604	604
2	2600	CD	24" x 24"	1.0	435	435				795	795
3	2600	CD	24" x 24"	1.0	435	435				618	618
4	2600	CD	24" x 24"	1.0	435	435				374	374
5	2600	CD	24" x 24"	1.0	435	435				604	604
6	2600	CD	24" x 24"	1.0	435	435				(1)	0
VAV-2						2610					3180
7	2600	CD	24" x 24"	1.0	435	435				337	337
8	2600	CD	24" x 24"	1.0	435	435				288	288

[illegible]

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
ERV-2000											
Exhaust											5709
1	2600	EG	24” x 24”	1.10	N.A.	N.A.				1589	1748
2	2600	EG	24” x 24”	2.62	N.A.	N.A.				588	1541
3	2600	EG	24” x 24”	2.62	N.A.	N.A.				604	1582
4	2600	EG	24” x 24”	1.10	N.A.	N.A.				762	838

EP Lab

Room Number	Use	Supply CFM		Exhaust CFM		Room Volume FT	Air Changes Per Hr		Room Pressure
		Design	Actual	Design	Actual		Design	Actual	
5535	EP Lab	1750	1874	1500	1156	4850	21.6	23.2	POS

[illegible]

Emergency Suite

1130	Exam 1	130	128	130	120	990	7.9	7.8	-
1132	Exam 2	125	119	125	206	828	9.1	14.9	-
1134	Exam 3	125	144	125	145	828	9.1	10.5	-
1136	Exam 4	205	147	205	374	1085	11.3	20.7	-
1153	Iso. Exam 5	375	259	375	499	1260	17.9	23.8	NEG (1)
1155	Exam 6	275	173	275	303	1015	16.3	17.9	-
1157	Exam 7	225	182	225	213	960	14.1	13.3	--
1159	Exam 8	275	187	275	346	960	14.1	21.6	-
1161	Exam 9	225	179	225	223	940	14.4	14.2	-
1165	Exam 10	285	244	285	208	1190	14.4	12.3	-
1169	Procedure Rm.	500	375	500	436	2100	14.3	12.5	-
1129	Triage	170	130	170	117	1224	8.3	6.4	-
1144	De-Con	75	62	405	380	690	35.2	33.0	NEG

CT Scan Suite

[illegible]

Box Number	Room Served	Box Size	Design CFM			Final CFM		
			Min	Htg.	Max.	Min	Htg.	Max.
VAV-2476	2476	6"	125	125	470	120	120	451
VAV-2479B	2479B	4"	100	100	250	103	103	254
VAV-2480	2480	4"	250	250	250	220	220	220
VAV-2482	2482	7"	430	430	600	430	430	594
VAV-2483	2483	4"	100	100	300	105	105	319
VAV-2486	2486	6"	100	100	280	98	98	275
VAV-2487	2487	5"	215	215	375	212	212	364
VAV-2488	2488	10"	1310	1310	1310	1348	1348	1348
VAV-2479	**	4"	175	175	310	179	179	317

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
VAV-2476						470					451
1	2476	CD	24" x 24"	1.0	235	235				229	229
2	2476	CD	24" x 24"	1.0	235	235				222	222
VAV-2479B						250					254
3	2479B	CD	24" x 24"	1.0	250	250				254	254
VAV-2480						225					220
4	2480	CD	24" x 24"	1.0	225	225				220	220
VAV-2482						600					594
5	2482	CD	24" x 24"	1.0	300	300				307	307
6	2482	CD	24" x 24"	1.0	300	300				287	287
VAV-2483						300					319

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
RTU-1											
Supply											3241
1	2472	CD	24" x 24"	1.0	540	540				536	536
2	2472	CD	24" x 24"	1.0	540	540				557	557
3	2472	CD	24" x 24"	1.0	540	540				401	401
4	2472	CD	24" x 24"	1.0	540	540				544	544
5	2472	CD	24" x 24"	1.0	540	540				488	488
6	2474	CD	24" x 24"	1.0	375	375				355	355
7	2474	CD	24" x 24"	1.0	375	375				360	360
EF-1	Isolation	Mode									
1	2472	EG	24" x 24"	1.1	1364	1500				1458	1604
2	2472	EG	24" x 24"	1.1	1364	1500				1561	1717
1	2475	EG	12" x 12"	1.0	75	75				94	94
2	2485	EG	12" x 12"	1.0	75	75				98	98

OR suites 1-7

Terminal Number	Room Number	Supply CFM		Exhaust CFM		Room Volume FT	Air Changes Per Hr		Room Pressure
		Design	Actual	Design	Actual		Design	Actual	
2246	OR-1	2500	2596	2124	1812	6240	24.0	25.0	POS
2248	OR-2	1910	2283	1623	1377	4800	24.0	28.5	POS
2252	OR-3	2258	2429	2125	1006	8160	16.6	17.9	POS
2254	OR-4	2798	3136	2380	1499	6480	25.9	29.0	POS
2256	OR-5	2798	2843	2380	973	6800	24.7	25.1	POS
2142B	OR-6	1935	2059	1740	828	4320	26.9	28.6	POS
2142A	OR-7	1805	1757	1630	815	4320	25.1	24.4	POS
2260	Clean Supply	550	578	225	210	4896	6.7	7.1	POS

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
OR-1											
VAV-2246	Supply					2500					2596
1	2246	LD	5'	1.0	133	133				190	190
2	2246	LD	5'	1.0	133	133				182	182
3	2246	LD	5'	1.0	133	133				189	189
4	2246	LD	7'	1.0	200	200				173	173
5	2246	LD	7'	1.0	200	200				170	170
6	2246	LD	5'	1.0	133	133				183	183
7	2246	LD	5'	1.0	133	133				185	185
8	2246	LD	5'	1.0	133	133				177	177
9	2246	LD	7'	1.0	200	200				162	162

10	2246	LD	7'	1.0	200	200				171	171
11	2246	CD	48" x 24"	1.0	225	225				174	174
12	2246	CD	48" x 24"	1.0	225	225				172	172
13	2246	CD	48" x 24"	1.0	225	225				209	209
14	2246	CD	48" x 24"	1.0	225	225				259	259
VEV-2246	Exhaust					2124					1812
1	2246	LLE	20" x 20"	1.0	1062	1062				900	900
2	2246	LLE	20" x 26"	1.0	1062	1062				912	912
Room	Pressure	+0.011	W.C.			Set	Point	+0.02"	W.C.		

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
OR-2											
VAV-2248	Supply					1910					2283
1	2248	LD	7'	1.0	160	160				225	225
2	2248	LD	7'	1.0	160	160				199	199
3	2248	LD	7'	1.0	160	160				211	211
4	2248	LD	7'	1.0	160	160				153	153
5	2248	LD	7'	1.0	160	160				231	231
6	2248	LD	7'	1.0	160	160				245	245
7	2248	LD	7'	1.0	160	160				157	157
8	2248	LD	7'	1.0	160	160				200	200
9	2248	CD	48" x 24"	1.0	210	210				305	305

VEV-2252	Exhaust					2125					1006
1	2252	LLE	12" x 36"	1.0	1490	1490				563	563
2	2252	LLE	24" x 6"	1.0	635	635				443	443
Room	Pressure	+.099	W.C.			Set	Point	+.02"	W.C.		

Terminal Number	Room Number	Terminal		Factor	Design		Test - FPM or CFM			Final	
		Type	Size		FPM	CFM	Test 1	Test 2	Test 3	FPM	CFM
OR-4											
VAV-2254	Supply					2798					3136
1	2254	LD	5'	1.0	153	153				327	227
2	2254	LD	5'	1.0	153	153				245	245
3	2254	LD	5'	1.0	153	153				227	227
4	2254	LD	7'	1.0	230	230				301	301
5	2254	LD	7'	1.0	230	230				260	260
6	2254	LD	5'	1.0	153	153				180	180
7	2254	LD	5'	1.0	153	153				162	162
8	2254	LD	5'	1.0	153	153				174	174
9	2254	LD	7'	1.0	230	230				156	156
10	2254	LD	7'	1.0	230	230				174	174
11	2254	CD	48" x 24"	1.0	240	240				300	300
12	2254	CD	48" x 24"	1.0	240	240				204	204
13	2254	CD	48" x 24"	1.0	240	240				235	235
14	2254	CD	48" x 24"	1.0	240	240				291	291
VE-2254	Exhaust					2380					1499

Room	Pressure	+ .099"	W.C.			Set	Point	+ .02"	W.C.		
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OR-6											
Supply						1935					2059
1	2142B	LD	7'	1.0	150	150				221	221
2	2142B	LD	7'	1.0	150	150				196	196
3	2142B	LD	7'	1.0	150	150				155	155
4	2142B	LD	7'	1.0	150	150				152	152
5	2142B	LD	7'	1.0	150	150				150	150
6	2142B	LD	7'	1.0	150	150				156	156
7	2142B	LD	7'	1.0	150	150				202	202
8	2142B	LD	7'	1.0	150	150				209	209
9	2142B	CD	24" x 24"	1.0	245	245				211	211
10	2142B	CD	24" x 24"	1.0	245	245				235	235
11	2142B	CD	24" x 24"	1.0	245	245				172	172
Exhaust						1740					828
1	2142B	LLE	32" x 12"	1.0	870	870				437	437
2	2142B	LLE	32" x 12"	1.0	870	870				391	391
Room	Pressure	+ .019"	W.C.								

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[illegible]

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