

Project Information

For: Mill Office Building
1992 NW Bascom Norris Dr, Lake city, FL

		Htg	Clg			Htg	Clg
Outside db	(°F)	33	94	Inside db	(°F)	70	80
Outside RH	(%)	-	44	Inside RH	(%)	-	50
Outside wb	(°F)	-	76	Inside wb	(°F)	-	67
Daily range	(°F)	-	19	Design TD	(°F)	37	14
Moisture diff.	(gr/lb)	-	29				

Heating Equipment

Make	Trane		
Model	4TWR4036N1		
Type	Split ASHP		
Efficiency	7.5 HSPF2		
Heating Input			
Heating Output	31.8	MBtuh @ 47°F	
Humidifier	6.8	gpd	
Leaving Air Temp	95.3	°F	
Actual Heating Fan	1147	cfm	

Cooling Equipment

Make	Trane		
Model	4TWR4036N1		
Type	Split ASHP		
COP / EER / SEER	14.3		
Sensible Cooling	27.5	MBtuh	
Latent Cooling	6.9	MBtuh	
Total Cooling	34.4	MBtuh	
Leaving Air Temp	55.0	°F	
Actual Cooling Fan	1147	cfm	

Equipment Location	Unit 1
System Type	PEAKCV
Fan Motor Heat Type	PACKAGE
Fan & Motor Combined Efficiency	0 %
Static Pressure Across Fan	0 in H2O

NAME	Area ft²	Heat Loss	Sensible Gain	Latent Gain	Htg cfm	Clg cfm	Time
Locker room	843	12866	25433	6029	1125	1118	Jun 1700 LDT
MOP	40	404	695	166	22	29	Jun 1700 LDT
Unit 1	883	13269	26128	6196	1147	1147	Jun 1700 LDT

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		Htg	Clg			Htg	Clg
Outside db	(°F)	33	94	Inside db	(°F)	70	80
Outside RH	(%)	-	44	Inside RH	(%)	-	50
Outside wb	(°F)	-	76	Inside wb	(°F)	-	67
Daily range	(°F)	-	19	Design TD	(°F)	37	14
Moisture diff.	(gr/lb)	-	29				

Heating Equipment

Make	Trane		
Model	4TWR4042N1		
Type	Split ASHP		
Efficiency	7.5 HSPF2		
Heating Input			
Heating Output	39.0	MBtuh @ 47°F	
Humidifier	12.6	gpd	
Leaving Air Temp	97.4	°F	
Actual Heating Fan	1300	cfm	

Cooling Equipment

Make	Trane		
Model	4TWR4042N1		
Type	Split ASHP		
COP / EER / SEER	14.3		
Sensible Cooling	31.2	MBtuh	
Latent Cooling	7.8	MBtuh	
Total Cooling	39.0	MBtuh	
Leaving Air Temp	55.0	°F	
Actual Cooling Fan	1300	cfm	

Equipment Location	Unit 2
System Type	PEAKCV
Fan Motor Heat Type	PACKAGE
Fan & Motor Combined Efficiency	0 %
Static Pressure Across Fan	0 in H2O

NAME	Area ft²	Heat Loss	Sensible Gain	Latent Gain	Htg cfm	Clg cfm	Time
RR	80	1289	1487	333	106	60	Jun 1700 LDT
Office 1	110	1772	2045	458	146	83	Jun 1700 LDT
Office 2	77	772	1329	318	34	53	Jun 1700 LDT
Office 3	77	772	1329	318	34	53	Jun 1700 LDT
Office 4	77	772	1329	318	34	53	Jun 1700 LDT
Office 5	81	818	1408	337	36	57	Jun 1700 LDT
ADA RR	56	565	973	233	25	39	Jun 1700 LDT
Womens	126	1272	2190	524	57	88	Jun 1700 LDT
Mens	126	1993	2532	524	162	103	Jun 1700 LDT
Office 9	76	767	1321	316	34	53	Jun 1700 LDT
Office 7	76	767	1321	316	34	53	Jun 1700 LDT
Office 6	76	767	1321	316	34	53	Jun 1700 LDT
Hall 1	395	4986	7138	1644	323	288	Jun 1700 LDT
Office 8	71	719	1238	297	32	50	Jun 1700 LDT
Hall	299	3513	5299	1272	207	213	Jun 1700 LDT

Unit 2	1801	21544	32260	7527	1300	1300	Jun 1700 LDT
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		Htg	Clg			Htg	Clg
Outside db	(°F)	33	94	Inside db	(°F)	70	80
Outside RH	(%)	-	44	Inside RH	(%)	-	50
Outside wb	(°F)	-	76	Inside wb	(°F)	-	67
Daily range	(°F)	-	19	Design TD	(°F)	37	14
Moisture diff.	(gr/lb)	-	29				

Heating Equipment

Make	Trane	
Model	4TWR4042N1	
Type	Split ASHP	
Efficiency	7.5 HSPF2	
Heating Input		
Heating Output	39.0	MBtuh @ 47°F
Humidifier	8.8	gpd
Leaving Air Temp	97.4	°F
Actual Heating Fan	1300	cfm

Cooling Equipment

Make	Trane	
Model	4TWR4042N1	
Type	Split ASHP	
COP / EER / SEER	14.3	
Sensible Cooling	31.2	MBtuh
Latent Cooling	7.8	MBtuh
Total Cooling	39.0	MBtuh
Leaving Air Temp	55.0	°F
Actual Cooling Fan	1300	cfm

Equipment Location	Unit 3
System Type	PEAKCV
Fan Motor Heat Type	PACKAGE
Fan & Motor Combined Efficiency	0 %
Static Pressure Across Fan	0 in H2O

NAME	Area ft²	Heat Loss	Sensible Gain	Latent Gain	Htg cfm	Clg cfm	Time
Office 17	95	2222	2695	490	226	116	Jun 1700 LDT
Office 16	260	4435	7044	1341	365	304	Jun 1700 LDT
Hall 2	223	2957	5817	1147	183	249	Jun 1700 LDT
Office 11	76	839	1949	392	36	83	Jun 1700 LDT
Office 12	71	787	1827	367	34	78	Jun 1700 LDT
Office 13	76	839	1949	392	36	83	Jun 1700 LDT
Office 14	76	839	1949	392	36	83	Jun 1700 LDT
Office 15	90	1535	2438	464	126	105	Jun 1700 LDT
Office 10	171	3031	4615	882	258	198	Jun 1700 LDT
Unit 3	1138	17485	30283	5867	1300	1300	Jun 1700 LDT

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1992 NW Bascom Norris Dr, Lake city, FL

		Htg	Clg			Htg	Clg
Outside db	(°F)	33	94	Inside db	(°F)	70	80
Outside RH	(%)	-	44	Inside RH	(%)	-	50
Outside wb	(°F)	-	76	Inside wb	(°F)	-	67
Daily range	(°F)	-	19	Design TD	(°F)	37	14
Moisture diff.	(gr/lb)	-	29				

Heating Equipment

Make	Trane	
Model	4TWR4060N1	
Type	Split ASHP	
Efficiency	7.5 HSPF2	
Heating Input		
Heating Output	55.0	MBtuh @ 47°F
Humidifier	14.2	gpd
Leaving Air Temp	97.4	°F
Actual Heating Fan	1833	cfm

Cooling Equipment

Make	Trane	
Model	4TWR4060N1	
Type	Split ASHP	
COP / EER / SEER	14.3	
Sensible Cooling	44.0	MBtuh
Latent Cooling	11.0	MBtuh
Total Cooling	55.0	MBtuh
Leaving Air Temp	55.0	°F
Actual Cooling Fan	1833	cfm

Equipment Location	Unit 4
System Type	PEAKCV
Fan Motor Heat Type	PACKAGE
Fan & Motor Combined Efficiency	0 %
Static Pressure Across Fan	0 in H2O

NAME	Area ft²	Heat Loss	Sensible Gain	Latent Gain	Htg cfm	Clg cfm	Time
Training	1224	19207	32305	7527	1340	1406	Jun 1700 LDT
Utility 2	48	479	825	198	24	35	Jun 1700 LDT
Utility 3	28	278	478	114	14	20	Jun 1700 LDT
Utility 1	125	1262	2172	520	62	93	Jun 1700 LDT
Storage 1	167	2222	3150	693	170	135	Jun 1700 LDT
Storage 2	175	2608	3308	728	223	144	Jun 1700 LDT
Unit 4	1765	26056	42238	9781	1833	1833	Jun 1700 LDT

Project Information

For: Mill Office Building
1992 NW Bascom Norris Dr, Lake city, FL

Zone: Unit 1

COOLING LOAD

1. DESIGN CONDITIONS		at Jun 1700 LDT	Peak load at Jun 1700 LDT		
Inside:	80 °F	Outside:	94 °F	TD:	14 °F
OutRH:	44 %	MoistDiff:	29.0 gr/lb	Mult:	1.0
				Ins.wb	67 °F
				Sensible	Latent
2. SOLAR RADIATION THROUGH GLASS				0	-
3. TRANSMISSION GAINS		Sensible		3536	-
Walls:	1053			-	-
Glass:	0			-	-
Doors:	185			-	-
Partitions:	0			-	-
Floors:	0			-	-
Ceilings:	2297			-	-
4. INTERNAL HEAT GAIN		Sensible		20888	4012
Occupants:	2908		Latent	4012	-
Lights:	15872			-	-
Motors:	0			-	-
Appliances:	2108			0	-
5. INFILTRATION:	Outside air cfm:		0	0	0
6. SUBTOTAL:	Space load	Sensible		24424	4012
Envelope	24424		Latent	4012	-
Less external	0			-	-
Redistribution	0			0	-
7. SUPPLY DUCT				0	-
8. SUBTOTAL:	Space load + supply duct			24424	-
Actual cfm:	1147	at supply TD:	25	-	-
9. VENTILATION:	Make-up air cfm:		111	1704	2184
10. RETURN AIR LOAD:	Lighting + plenum (net)			0	-
11. RETURN DUCT				0	-
12. TOTAL LOADS ON EQUIPMENT				26128	6196

HEATING LOAD

13. DESIGN CONDITIONS			Mult:	1.0	
Inside:	70 °F	Outside:	33 °F	TD:	37 °F
14. TRANSMISSION LOSSES					4668
Walls:	1098			-	-
Glass:	0			-	-
Doors:	594			-	-
Partitions:	0			-	-
Floors:	1869			-	-
Ceilings:	1107			-	-
15. INFILTRATION:	Outside air cfm:		40	1596	
16. SUBTOTAL:	Space load			6264	
Envelope	6264			-	-
Less external	0			-	-
Less transfer	0			-	-
Redistribution	0			-	-
17. SUPPLY DUCT:				0	
18. VENTILATION:	Make-up air cfm:		111	4466	
19. HUMIDIFICATION				2540	
Piping				0	
20. RETURN DUCT				0	
21. TOTAL HEATING LOAD ON EQUIPMENT				13269	

Project Information

For: Mill Office Building
1992 NW Bascom Norris Dr, Lake city, FL

Zone: Unit 2

COOLING LOAD

1. DESIGN CONDITIONS		at Jun 1700 LDT	Peak load at Jun 1700 LDT		
Inside:	80 °F	Outside:	94 °F	TD:	14 °F
OutRH:	44 %	MoistDiff:	29.0 gr/lb	Mult:	1.0
				Ins.wb	67 °F
				Sensible	Latent
2. SOLAR RADIATION THROUGH GLASS				0	-
3. TRANSMISSION GAINS		Sensible		5647	-
Walls:		720		-	-
Glass:		0		-	-
Doors:		238		-	-
Partitions:		0		-	-
Floors:		0		-	-
Ceilings:		4689		-	-
4. INTERNAL HEAT GAIN		Sensible		Latent	23575
Occupants:		4503		3632	3632
Lights:		14770		-	-
Motors:		0		-	-
Appliances:		4302		0	-
5. INFILTRATION:	Outside air cfm:		0	0	0
6. SUBTOTAL:	Space load	Sensible		Latent	29223
Envelope		29223		3632	-
Less external		0		-	-
Redistribution		0		0	-
7. SUPPLY DUCT				0	-
8. SUBTOTAL:	Space load + supply duct			29223	-
Actual cfm:	1300	at supply TD:	25	-	-
9. VENTILATION:	Make-up air cfm:		198	3038	3895
10. RETURN AIR LOAD:	Lighting + plenum (net)			0	-
11. RETURN DUCT				0	-
12. TOTAL LOADS ON EQUIPMENT				32260	7527

HEATING LOAD

13. DESIGN CONDITIONS			Mult:	1.0	
Inside:	70 °F	Outside:	33 °F	TD:	37 °F
14. TRANSMISSION LOSSES					5622
Walls:		929		-	-
Glass:		0		-	-
Doors:		764		-	-
Partitions:		0		-	-
Floors:		1670		-	-
Ceilings:		2259		-	-
15. INFILTRATION:	Outside air cfm:		81	3258	
16. SUBTOTAL:	Space load			8880	
Envelope		8880		-	-
Less external		0		-	-
Less transfer		0		-	-
Redistribution		0		-	-
17. SUPPLY DUCT:				0	
18. VENTILATION:	Make-up air cfm:		198	7963	
19. HUMIDIFICATION				4701	
Piping				0	
20. RETURN DUCT				0	
21. TOTAL HEATING LOAD ON EQUIPMENT				21544	

Project Information

For: Mill Office Building
1992 NW Bascom Norris Dr, Lake city, FL

Zone: Unit 3

COOLING LOAD

1. DESIGN CONDITIONS		at Jun 1700 LDT	Peak load at Jun 1700 LDT		
Inside:	80 °F	Outside:	94 °F	TD:	14 °F
OutRH:	44 %	MoistDiff:	29.0 gr/lb	Mult:	1.0
				Ins.wb	67 °F
				Sensible	Latent
2. SOLAR RADIATION THROUGH GLASS				0	-
3. TRANSMISSION GAINS		Sensible		4071	-
Walls:		1030		-	-
Glass:		0		-	-
Doors:		79		-	-
Partitions:		0		-	-
Floors:		0		-	-
Ceilings:		2962		-	-
4. INTERNAL HEAT GAIN		Sensible	Latent	24003	3034
Occupants:		3793	3034	-	-
Lights:		17493	-	-	-
Motors:		0	-	-	-
Appliances:		2717	0	-	-
5. INFILTRATION:	Outside air cfm:		0	0	0
6. SUBTOTAL:	Space load	Sensible	Latent	28074	3034
Envelope		28074	3034	-	-
Less external		0	-	-	-
Redistribution		0	0	-	-
7. SUPPLY DUCT				0	-
8. SUBTOTAL:	Space load + supply duct			28074	-
Actual cfm:	1300	at supply TD:	25	-	-
9. VENTILATION:	Make-up air cfm:		144	2210	2833
10. RETURN AIR LOAD:	Lighting + plenum (net)			0	-
11. RETURN DUCT				0	-
12. TOTAL LOADS ON EQUIPMENT				30283	5867

HEATING LOAD

13. DESIGN CONDITIONS			Mult:	1.0	
Inside:	70 °F	Outside:	33 °F	TD:	37 °F
14. TRANSMISSION LOSSES					6346
Walls:		1815		-	-
Glass:		0		-	-
Doors:		255		-	-
Partitions:		0		-	-
Floors:		2849		-	-
Ceilings:		1427		-	-
15. INFILTRATION:	Outside air cfm:		51		2058
16. SUBTOTAL:	Space load				8404
Envelope		8404		-	-
Less external		0		-	-
Less transfer		0		-	-
Redistribution		0		-	-
17. SUPPLY DUCT:					0
18. VENTILATION:	Make-up air cfm:		144		5792
19. HUMIDIFICATION					3289
Piping					0
20. RETURN DUCT					0
21. TOTAL HEATING LOAD ON EQUIPMENT					17485

Project Information

For: Mill Office Building
1992 NW Bascom Norris Dr, Lake city, FL

Zone: Unit 4

COOLING LOAD

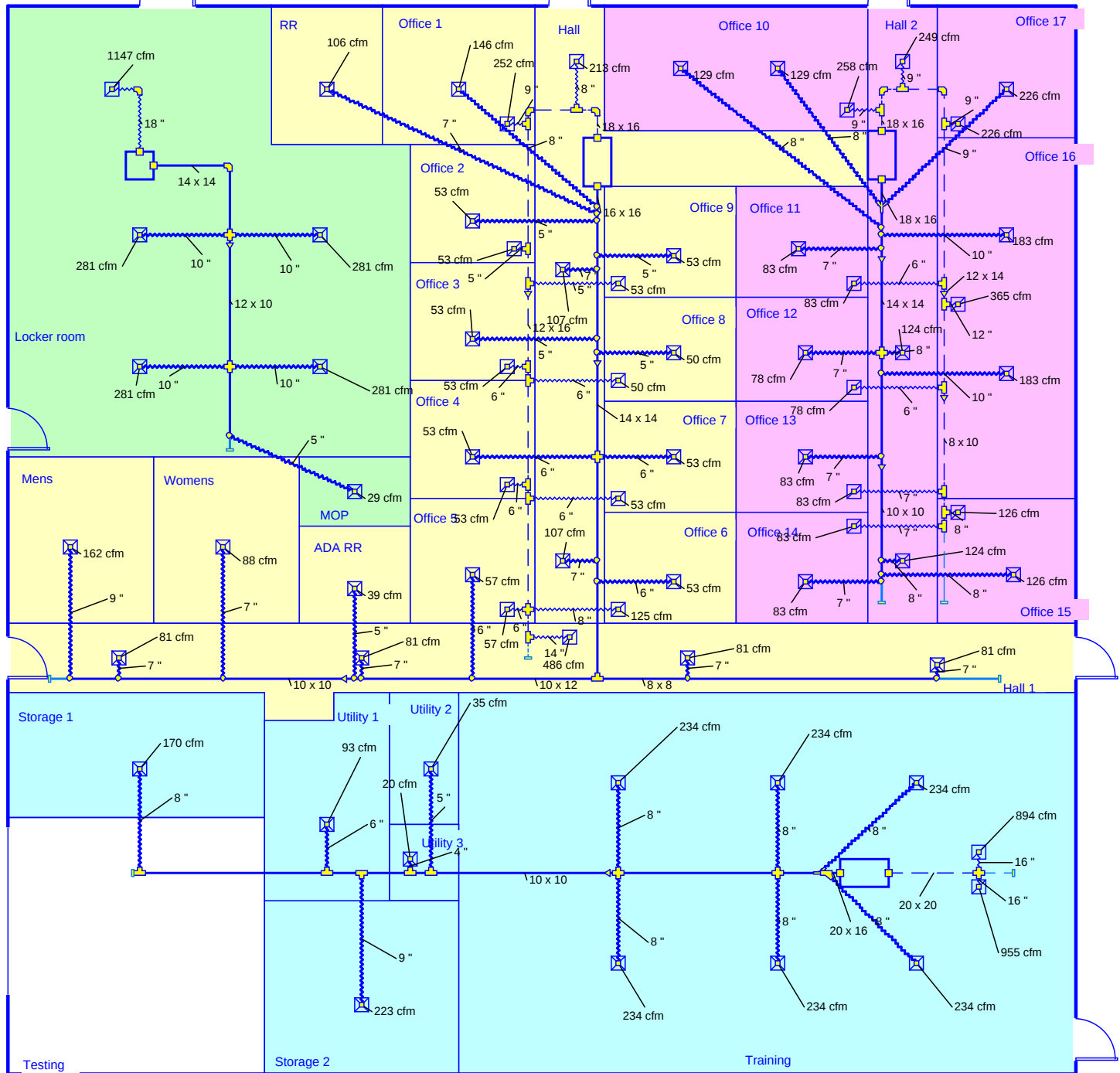
1. DESIGN CONDITIONS		at Jun 1700 LDT	Peak load at Jun 1600 LDT		
Inside:	80 °F	Outside:	94 °F	TD:	14 °F
OutRH:	44 %	MoistDiff:	29.0 gr/lb	Mult:	1.0
				Ins.wb	67 °F
				Sensible	Latent
2. SOLAR RADIATION THROUGH GLASS				0	-
3. TRANSMISSION GAINS		Sensible		6411	-
Walls:		1737		-	-
Glass:		0		-	-
Doors:		79		-	-
Partitions:		0		-	-
Floors:		0		-	-
Ceilings:		4595		-	-
4. INTERNAL HEAT GAIN		Sensible		32225	5162
Occupants:		4753		5162	-
Lights:		23255		-	-
Motors:		0		-	-
Appliances:		4216		0	-
5. INFILTRATION:		Outside air cfm:		0	0
6. SUBTOTAL:	Space load	Sensible		38636	5162
Envelope		38636		5162	-
Less external		0		-	-
Redistribution		0		0	-
7. SUPPLY DUCT				0	-
8. SUBTOTAL:	Space load + supply duct			38636	-
Actual cfm:		1833	at supply TD:	25	-
9. VENTILATION:		Make-up air cfm:		235	3602
10. RETURN AIR LOAD:		Lighting + plenum (net)		0	4619
11. RETURN DUCT				0	-
12. TOTAL LOADS ON EQUIPMENT				42238	9781

HEATING LOAD

13. DESIGN CONDITIONS			Mult:	1.0	
Inside:	70 °F	Outside:	33 °F	TD:	37 °F
14. TRANSMISSION LOSSES					8125
Walls:		2208		-	-
Glass:		0		-	-
Doors:		255		-	-
Partitions:		0		-	-
Floors:		3448		-	-
Ceilings:		2214		-	-
15. INFILTRATION:		Outside air cfm:		79	3193
16. SUBTOTAL:	Space load				11318
Envelope		11318		-	-
Less external		0		-	-
Less transfer		0		-	-
Redistribution		0		-	-
17. SUPPLY DUCT:					0
18. VENTILATION:		Make-up air cfm:		235	9444
19. HUMIDIFICATION					5294
Piping					0
20. RETURN DUCT					0
21. TOTAL HEATING LOAD ON EQUIPMENT					26056



Sheet 1



Job #: Mill office Building
Performed by David Marrs for:
Mill Office Building
1992 NW Bascom Norris Dr
Lake city, FL

Scale: 1 : 128
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Project Information

For: Mill Office Building
1992 NW Bascom Norris Dr, Lake city, FL

	Heating	Cooling
External static pressure	0.53 in H ₂ O	0.53 in H ₂ O
Pressure losses	0 in H ₂ O	0 in H ₂ O
Available static pressure	0.53 in H ₂ O	0.53 in H ₂ O
Supply / return available pressure	0.438 / 0.092 in H ₂ O	0.438 / 0.092 in H ₂ O
Lowest friction rate	0.120 in/100ft	0.120 in/100ft
Actual air flow	1147 cfm	1147 cfm
Total effective length (TEL)	441 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
Locker room	h 1535	281	279	0.150	10.0	0x0	VIFx	26.5	265.0	st3A
Locker room-C	h 1535	281	279	0.222	10.0	0x0	VIFx	17.0	180.0	st3
Locker room-D	h 1535	281	279	0.150	10.0	0x0	VIFx	26.5	265.0	st3A
Locker room-E	h 1535	281	279	0.222	10.0	0x0	VIFx	17.0	180.0	st3
MOP	c 628	22	29	0.120	5.0	0x0	VIFx	34.8	330.0	st3A

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st3A	Peak AVF	585	588	0.120	706	11.5	10 x 12	RectFbg	st3
st3	Peak AVF	1147	1147	0.120	843	14.7	14 x 14	RectFbg	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb2	0x0	1147	1147	76.5	0.120	649	18.0	0x0		VIFx	

Project Information

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	Heating	Cooling
External static pressure	0.53 in H ₂ O	0.53 in H ₂ O
Pressure losses	0 in H ₂ O	0 in H ₂ O
Available static pressure	0.53 in H ₂ O	0.53 in H ₂ O
Supply / return available pressure	0.284 / 0.246 in H ₂ O	0.284 / 0.246 in H ₂ O
Lowest friction rate	0.066 in/100ft	0.066 in/100ft
Actual air flow	1300 cfm	1300 cfm
Total effective length (TEL)	805 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
ADA RR	c 879	25	39	0.073	5.0	0x0	VIFx	59.5	330.0	st5
Hall	c 2398	103	107	0.090	7.0	0x0	VIFx	29.5	285.0	st4A
Hall 1	h 552	81	72	0.067	7.0	0x0	VIFx	71.5	350.0	st5A
Hall 1-A	h 552	81	72	0.073	7.0	0x0	VIFx	61.0	330.0	st6
Hall 1-B	h 552	81	72	0.072	7.0	0x0	VIFx	54.0	340.0	st5
Hall 1-C	h 552	81	72	0.074	7.0	0x0	VIFx	43.5	340.0	st6
Hall-A	c 2398	103	107	0.151	7.0	0x0	VIFx	8.5	180.0	st4
Mens	h 1107	162	103	0.067	9.0	0x0	VIFx	83.0	340.0	st5A
Office 1	h 998	146	83	0.130	8.0	0x0	VIFx	14.6	205.0	st4
Office 2	c 1200	34	53	0.138	5.0	0x0	VIFx	11.5	195.0	st4
Office 3	c 1200	34	53	0.150	5.0	0x0	VIFx	20.0	170.0	st4
Office 4	c 1200	34	53	0.124	6.0	0x0	VIFx	28.5	200.0	st4A
Office 5	c 1271	36	57	0.071	6.0	0x0	VIFx	52.0	350.0	st5
Office 6	c 1193	34	53	0.092	6.0	0x0	VIFx	34.0	275.0	st4A
Office 7	c 1193	34	53	0.126	6.0	0x0	VIFx	25.0	200.0	st4A
Office 8	c 1118	32	50	0.160	5.0	0x0	VIFx	17.5	160.0	st4
Office 9	c 1193	34	53	0.142	5.0	0x0	VIFx	10.5	190.0	st4
RR	h 726	106	60	0.124	7.0	0x0	VIFx	23.5	205.0	st4
Womens	c 1977	57	88	0.066	7.0	0x0	VIFx	72.0	360.0	st5A

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st4	Peak AVF	1300	1300	0.066	731	17.4	16 x 16	RectFbg	st4A st5 st4 st4A
st5	Peak AVF	442	431	0.066	530	11.6	12 x 10	RectFbg	
st5A	Peak AVF	299	263	0.066	431	10.1	10 x 10	RectFbg	
st4A	Peak AVF	809	841	0.066	618	14.8	14 x 14	RectFbg	
st6	Peak AVF	162	144	0.073	364	7.8	8 x 8	RectFbg	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb11	0x 0	115	125	259.5	0.095	358	8.0	0x 0		VIFx	rt4A
rb12	0x 0	34	53	251.5	0.098	270	6.0	0x 0		VIFx	rt4A
rb13	0x 0	32	50	223.0	0.110	253	6.0	0x 0		VIFx	rt4A
rb14	0x 0	34	53	176.0	0.140	389	5.0	0x 0		VIFx	rt4
rb23	0x 0	486	446	373.0	0.066	455	14.0	0x 0		VIFx	rt4A
rb1	0x 0	207	213	107.0	0.230	611	8.0	0x 0		VIFx	rt4
rb6	0x 0	252	143	139.5	0.176	571	9.0	0x 0		VIFx	rt4
rb7	0x 0	34	53	158.0	0.155	392	5.0	0x 0		VIFx	rt4
rb8	0x 0	34	53	207.0	0.119	272	6.0	0x 0		VIFx	rt4A
rb9	0x 0	34	53	235.5	0.104	272	6.0	0x 0		VIFx	rt4A
rb10	0x 0	36	57	254.5	0.096	288	6.0	0x 0		VIFx	rt4A

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rt4A	Peak AVF	772	837	0.066	628	14.8	16 x 12	RectFbg	rt4
rt4	Peak AVF	1300	1300	0.066	650	17.4	16 x 18	RectFbg	

Project Information

For: Mill Office Building
1992 NW Bascom Norris Dr, Lake city, FL

	Heating	Cooling
External static pressure	0.53 in H ₂ O	0.53 in H ₂ O
Pressure losses	0 in H ₂ O	0 in H ₂ O
Available static pressure	0.53 in H ₂ O	0.53 in H ₂ O
Supply / return available pressure	0.265 / 0.265 in H ₂ O	0.265 / 0.265 in H ₂ O
Lowest friction rate	0.065 in/100ft	0.065 in/100ft
Actual air flow	1300 cfm	1300 cfm
Total effective length (TEL)	820 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
Hall 2	c 2692	91	124	0.065	8.0	0x0	VIFx	29.0	380.0	st2B
Hall 2-A	c 2692	91	124	0.088	8.0	0x0	VIFx	14.0	285.0	st2A
Office 10	h 833	129	99	0.089	8.0	0x0	VIFx	22.0	275.0	st2
Office 10-A	h 833	129	99	0.129	8.0	0x0	VIFx	14.5	190.0	st2
Office 11	c 1801	36	83	0.099	7.0	0x0	VIFx	11.0	255.0	st2
Office 12	c 1689	34	78	0.087	7.0	0x0	VIFx	18.0	285.0	st2A
Office 13	c 1801	36	83	0.070	7.0	0x0	VIFx	25.5	350.0	st2A
Office 14	c 1801	36	83	0.067	7.0	0x0	VIFx	34.5	360.0	st2B
Office 15	h 817	126	105	0.065	8.0	0x0	VIFx	38.0	370.0	st2B
Office 16	h 1180	183	152	0.069	10.0	0x0	VIFx	23.0	360.0	st2A
Office 16-A	h 1180	183	152	0.095	10.0	0x0	VIFx	13.0	265.0	st2
Office 17	h 1463	226	116	0.129	9.0	0x0	VIFx	14.4	190.0	st2

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st2	Peak AVF	1300	1300	0.065	650	17.5	16 x 18	RectFbg	st2 st2A
st2A	Peak AVF	597	751	0.065	552	14.2	14 x 14	RectFbg	
st2B	Peak AVF	254	313	0.065	451	10.3	10 x 10	RectFbg	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb3	0x0	183	249	116.5	0.228	563	9.0	0x 0		VIFx	rt2
rb15	0x0	258	198	84.0	0.316	583	9.0	0x 0		VIFx	rt2
rb16	0x0	226	116	151.0	0.176	512	9.0	0x 0		VIFx	rt2
rb17	0x0	365	304	239.0	0.111	465	12.0	0x 0		VIFx	rt2A
rb18	0x0	36	83	178.0	0.149	424	6.0	0x 0		VIFx	rt2
rb19	0x0	34	78	240.5	0.110	398	6.0	0x 0		VIFx	rt2A
rb20	0x0	36	83	278.0	0.095	312	7.0	0x 0		VIFx	rt2B
rb21	0x0	36	83	410.5	0.065	312	7.0	0x 0		VIFx	rt2B
rb22	0x0	126	105	339.0	0.078	362	8.0	0x 0		VIFx	rt2B

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rt2	Peak AVF	1300	1300	0.065	650	17.5	16 x 18	RectFbg	
rt2A	Peak AVF	597	654	0.065	560	13.5	14 x 12	RectFbg	rt2
rt2B	Peak AVF	198	272	0.065	489	9.7	10 x 8	RectFbg	rt2A

Project Information

For: Mill Office Building
1992 NW Bascom Norris Dr, Lake city, FL

	Heating	Cooling
External static pressure	0.53 in H ₂ O	0.53 in H ₂ O
Pressure losses	0 in H ₂ O	0 in H ₂ O
Available static pressure	0.53 in H ₂ O	0.53 in H ₂ O
Supply / return available pressure	0.402 / 0.128 in H ₂ O	0.402 / 0.128 in H ₂ O
Lowest friction rate	0.138 in/100ft	0.138 in/100ft
Actual air flow	1833 cfm	1833 cfm
Total effective length (TEL)	385 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
Storage 1	h 1051	170	135	0.145	8.0	0x0	VIFx	58.0	220.0	st1A
Storage 2	h 1378	223	144	0.142	9.0	0x0	VIFx	44.0	240.0	st1A
Training	c 4963	223	234	0.204	8.0	0x0	VIFx	22.5	175.0	st1
Training-A	c 4963	223	234	0.266	8.0	0x0	VIFx	11.0	140.0	st1
Training-B	c 4963	223	234	0.236	8.0	0x0	VIFx	10.2	160.0	st1
Training-C	c 4963	223	234	0.204	8.0	0x0	VIFx	22.5	175.0	st1
Training-D	c 4963	223	234	0.266	8.0	0x0	VIFx	11.0	140.0	st1
Training-E	c 4963	223	234	0.250	8.0	0x0	VIFx	11.1	150.0	st1
Utility 1	c 1961	62	93	0.149	6.0	0x0	VIFx	40.5	230.0	st1A
Utility 2	c 745	24	35	0.138	5.0	0x0	VIFx	37.0	255.0	st1A
Utility 3	c 432	14	20	0.143	4.0	0x0	VIFx	32.0	250.0	st1A

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	1833	1833	0.138	825	17.1	16 x 20	RectFbg	
st1A	Peak AVF	493	427	0.138	709	10.4	10 x 10	RectFbg	st1

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb4	0x 0	878	894	93.0	0.138	640	16.0	0x 0		VIFx	rt1
rb5	0x 0	955	939	92.5	0.138	684	16.0	0x 0		VIFx	rt1

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rt1	Peak AVF	1833	1833	0.138	660	17.1	20 x 20	RectFbg	