

HDR, Inc. - Princeton, New Jersey													
<div>Client: VA Lebanon</div> <div>Location: Lebanon, PA</div> <div>Project: Oncology</div> <div>Project Number:</div> <div>Last Revised: Oct. 12, 2012</div>													
Preliminary Load Summary													
Supply Air Temp. 55.0 CFM/S.F.: 1.4													
Room Name	Area (SF)	Ceiling Height (ft)	Sensible BTUh	Room Temp (°F)	CFM for Load	Req'd Air Changes	CFM For Air Changes	Hood Exhaust	Other Req'd Exhaust	General Exhaust/ Return	Total Room Supply	Trans. Air Out (CFM)	Trans. Air In (CFM)
1-Office	119	8	4500	75	205	4	63	0	0	205	205	0	0
2-Office	146	8	3700	75	168	4	78	0	0	170	170	0	0
3-Office Pod	261	8	6800	75	309	4	139	0	0	310	310	0	0
4-Break Room	284	8	6700	75	305	0	0	0	405	0	305	0	100
5-Conference Room	255	8	6800	75	309	4	136	0	0	310	310	0	0
6-Nurse Station	372	8	9000	75	409	6	298	0	0	410	410	0	0
7-Blood Draw Injections	132	8	2200	75	100	6	106	0	0	110	110	0	0
8-Office	119	8	5000	75	227	4	63	0	0	230	230	0	0
9-Office	145	8	4300	75	195	4	77	0	0	200	200	0	0
10-Office Pod	261	8	8100	75	368	4	139	0	0	370	370	0	0
11-Conference Room	88	8	8200	75	373	4	47	0	0	375	375	0	0
12-Shower	157	8	1900	75	86	4	84	0	200	0	100	0	100
13-Shower	160	8	1900	75	86	4	85	0	200	0	100	0	100
14-Lockers	108	8	1500	75	68	6	86	0	200	0	100	0	100
15-HAC	82	8	700	75	32	10	109	0	110	0	0	0	110
16-Soiled Utility	135	8	1000	75	45	6	108	0	210	0	110	0	100
17-Clean Utility	113	8	2500	75	114	4	60	0	0	115	115	0	0
18-Exam	115	8	3500	75	159	6	92	0	0	160	160	0	0
19-Exam	117	8	3500	75	159	6	94	0	0	160	160	0	0
20-Toilet	53	8	1700	75	77	10	71	0	100	0	0	0	100
21-Toilet	53	8	500	75	23	10	71	0	100	0	0	0	100
22-Exam	152	8	5000	75	227	6	122	0	0	230	230	0	0
23-Exam	163	8	5400	75	245	6	130	0	0	250	250	0	0
24-Exam	117	8	5000	75	227	6	94	0	0	230	230	0	0
25-Exam	112	8	3500	75	159	6	90	0	0	160	160	0	0
26-Exam	120	8	3600	75	164	6	96	0	0	165	165	0	0
27-Work Room	114	8	4200	75	191	0	0	0	0	195	195	0	0
28-Exam	120	8	3600	75	164	6	96	0	0	165	165	0	0
29-Exam	113	8	3500	75	159	6	90	0	0	160	160	0	0
30-Consultation	82	8	1400	75	64	6	66	0	0	70	70	0	0
31-Corridor	849	8	7700	75	350	4	453	0	0	345	455	110	0
32-Corridor	579	8	5400	75	245	4	309	0	0	0	400	400	0
33-Consultation	145	8	4500	75	205	6	116	0	0	205	205	0	0
34-Family Room	229	8	7700	75	350	6	183	0	0	350	350	0	0
35-Corridor	2409	8	35000	75	1,591	4	1,285	0	0	995	1,595	600	0
36-Exam	135	8	3300	75	150	6	108	0	0	150	150	0	0
37-Exam	181	8	3800	75	173	6	145	0	0	175	175	0	0
38-Toilet	57	8	1400	75	64	10	76	0	100	0	0	0	100
39-Toilet	64	8	500	75	23	10	85	0	100	0	0	0	100
TOTALS	9,016		188,500				5,550		1,725	6,970	8,795		
40-Clean Utility	144	8	1000	75	45	4	77	0	80	0	80	0	0
41-Soiled Utility	135	8	1000	75	45	6	108	0	210	0	110	0	100
42-Toilet	55	8	400	75	18	10	73	0	100	0	0	0	100
43-Toilet	50	8	400	75	18	10	67	0	100	0	0	0	100
44-Toilet	53	8	400	75	18	10	71	0	100	0	0	0	100
45-HAC	90	8	1000	75	45	10	120	0	120	0	0	0	120
46-Chemo Prep	112	8	1900	75	86	30	448	0	450	0	450	0	0
47-Chemo Prep	330	8	6300	75	286	30	1,320	0	1,320	0	1,320	0	0
48-Corridor	304	8	3600	75	164	4	162	0	165	0	185	220	200
49-Corridor	564	8	33400	75	1,518	4	301	0	1,620	0	1,520	100	200
50-Med Prep	88	8	1200	75	55	30	352	0	355	0	355	0	0
51-Chemo	3748	8	76800	75	3,491	6	2,998	0	3,195	0	3,495	300	0
52-Staff Break Room	165	8	6800	75	309	6	132	0	410	0	310	0	100
53-Chemo	354	8	12600	75	573	6	283	0	575	0	575	0	0
54-Ante	59	8	700	75	32	30	236	0	240	0	240	0	0
TOTALS	6,251		147,500				6,748	0	9,040	0	8,640		

Oncology A Wing

Supply Air	8,795
Exhaust air:	1,725
Return air:	6,970

Oncology C Wing

Supply Air	8,640
Exhaust air:	9,040
Return air:	-

Notes:

1. Values in **BLUE** are user input.

2. Values in **BLACK** are calculated or transferred from the H/A

3. Spreadsheet does NOT count Incoming transfer air when determining CFM for air changes.

Reheat mbh's

4.43
3.67
6.70
6.59
6.70
8.86
2.38
4.97
4.32
7.99
8.10
2.16
2.16
2.16
0.00
2.38
2.48
3.46
3.46
0.00
0.00
4.97
5.40
4.97
3.46
3.56
4.21
3.56
3.46
1.51
9.83
8.64
4.43
7.56
34.45
3.24
3.78
0.00
0.00
189.97 at 50%=
95
1.73
2.38
0.00
0.00
0.00
0.00
9.72
28.51
4.00
32.83
7.67
75.49
6.70
12.42
5.18
186.62
187
Total reheat mbh's=
282
Heat loss MBH's =
138
Total heat loss for Oncology=
420
Calc'd heat loss for Bed 1-2=
191
Heat loss for both projects=
611
Req'd gpm at 20F delata T=
61