

CD (Ez = 0.8 & Storage Ra = 0.12)	System	Peak Supply Air	Design Outside Air	OA Fraction		
		cfm	cfm	%	DCV	Comments
	AHU-1 Workspaces N	24200	16900	70%	2900	
	AHU-2 Workspaces S	11900	7000	59%	1500	
	AHU-3 Cafe	11600	5100	44%	1200	need to adjust DCV to 2900 cfm, OA increased to 5200 cfm on 04/10/14
	AHU-4 Seminar	14600	10300	71%	800	need to adjust DCV to 1900 cfm
	AHU-5 Conference	18600	6300	34%	1600	need to adjust DCV to 6000 cfm, SA increased to 18400 cfm, OA increased to 7900 cfm on 04/10/14

DD	AHU-1 Workspaces N	22500	17000	76%	4000
	AHU-2 Workspaces S	15000	8000	53%	2300
	AHU-3 Cafe	13000	5500	42%	2300
	AHU-4 Seminar	13000	8500	65%	1100
	AHU-5 Conference	20000	7500	38%	3700

Difference between CD & DD	AHU-1 Workspaces N	-8%	1%		28%
	AHU-2 Workspaces S	21%	13%		35%
	AHU-3 Cafe	11%	7%		48%
	AHU-4 Seminar	-12%	-21%		27%
	AHU-5 Conference	7%	16%		57%

CD (Ez = 1.0)	System	Peak Supply Air	Design Outside Air	OA Fraction		
		cfm	cfm	%	DCV	Comments
	AHU-1 Workspaces N	24200	17700	73%	2900	
	AHU-2 Workspaces S	11900	7900	66%	1500	
	AHU-3 Cafe	11500	5200	45%	1200	need to adjust DCV to 2900 cfm, OA increased to 5200 cfm on 04/10/14
	AHU-4 Seminar	14600	11600	79%	800	need to adjust DCV to 1900 cfm
	AHU-5 Conference	18400	7900	43%	1500	need to adjust DCV to 6000 cfm, SA increased to 18400 cfm, OA increased to 7900 cfm on 04/10/14

Zone	Occupancy Category	Rp cfm/p	Pz-des person	Ra cfm/sf	Az sf	Density pp/1000SF	CO2 for LEED?	Step #:	1	2	3	Vdz-uncorr cfm	Vdz-des cfm	Vdz-min-uncorr cfm	Vdz-min cfm	4	9
								DCV for 90.1?	Vbz cfm	Ez	Voz cfm					Zdz	Evz
118 L1 HuddleRm_170	Huddle	5	5	0.06	93	54	Y	-	31	0.8	38	100	100	30	45.0	0.85	0.50
119 L1 HuddleRm_172	Huddle	5	5	0.06	93	54	Y	-	31	0.8	38	100	100	30	45.0	0.85	0.50
120 L1 HuddleRm_173	Huddle	5	5	0.06	89	56	Y	-	30	0.8	38	100	100	30	45.0	0.84	0.50
121 L1 HuddleRm_174	Huddle	5	5	0.06	89	56	Y	-	30	0.8	38	100	100	30	45.0	0.84	0.50
122 L1 HuddleRm_175	Huddle	5	5	0.06	89	56	Y	-	30	0.8	38	100	100	30	45.0	0.84	0.50
123 L1 HuddleRm_176	Huddle	5	5	0.06	89	56	Y	-	30	0.8	38	100	100	30	45.0	0.84	0.50
124 L1 HuddleRm_177	Huddle	5	5	0.06	89	56	Y	-	30	0.8	38	100	100	30	45.0	0.84	0.50
125 L1 HuddleRm_178	Huddle	5	5	0.06	89	56	Y	-	30	0.8	38	100	100	30	45.0	0.84	0.50
126 L1 HuddleRm_179	Huddle	5	5	0.06	103	48	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
127 L1 HuddleRm_192	Huddle	5	5	0.06	88	57	Y	-	30	0.8	38	100	100	30	45.0	0.84	0.50
128 L1 HuddleRm_195	Huddle	5	5	0.06	89	56	Y	-	30	0.8	38	100	100	30	45.0	0.84	0.50
129 L1 HuddleRm_194	Huddle	5	5	0.06	88	57	Y	-	30	0.8	38	100	100	30	45.0	0.84	0.50
134 L1 LockerRm_168_Ext	Corridor	0	2	0.06	211	9	-	-	13	0.8	16	100	100	30	30.0	0.53	0.82
135 L1 LockerRm_168_Int	Corridor	0	1	0.06	104	10	-	-	6	0.8	8	25	25	8	10.0	0.78	0.57
145 L1 MastersStudio_191_Ext1	Masters	10	22	0.12	798	28	Y	-	316	0.8	395	750	750	225	470.0	0.84	0.51
146 L1 MastersStudio_191_Ext2	Masters	10	20	0.12	416	48	Y	-	250	0.8	312	750	750	225	370.0	0.84	0.50
147 L1 MastersStudio_191_Ext3	Masters	10	12	0.12	780	15	-	-	214	0.8	267	500	500	150	320.0	0.83	0.51
148 L1 MastersStudio_191_Ext4	Masters	10	15	0.12	530	28	Y	-	214	0.8	267	450	450	135	320.0	0.83	0.51
149 L1 MastersStudio_191_Int1	Masters	10	44	0.12	1048	42	Y	Y	566	0.8	707	900	900	270	840.0	0.84	0.50
150 L1 MastersStudio_191_Int2	Masters	10	20	0.12	425	47	Y	-	251	0.8	314	450	450	135	375.0	0.84	0.51
151 L1 MastersStudio_191_Int3	Masters	10	20	0.12	353	57	Y	-	242	0.8	303	450	450	135	360.0	0.84	0.50
152 L1 MastersStudio_191_Int4	Masters	10	17	0.12	701	24	-	-	254	0.8	318	488	488	146	380.0	0.84	0.51
154 L1 QuietRm_197	Masters	10	20	0.12	732	27	Y	-	288	0.8	360	732	732	220	430.0	0.84	0.51
205 L2 CollabArea_274	Workspace	5	7	0.06	279	25	Y	-	52	0.8	65	150	150	45	80.0	0.81	0.54
206 L2 CollabArea_295	Swing	5	12	0.06	679	18	-	-	101	0.8	126	400	400	120	150.0	0.84	0.51
214 L2 HuddleCorridor	Corridor	0	0	0.06	608	0	-	-	36	0.8	46	50	55	17	55.0	0.83	0.52
221 L2 HuddleRm_252	Huddle	5	5	0.06	103	48	Y	-	31	0.8	39	100	100	30	50.0	0.78	0.57
222 L2 HuddleRm_254	Huddle	5	5	0.06	99	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
223 L2 HuddleRm_255	Huddle	5	5	0.06	107	47	Y	-	31	0.8	39	122	122	37	50.0	0.79	0.56
224 L2 HuddleRm_256	Huddle	5	5	0.06	124	40	Y	-	32	0.8	41	100	100	30	50.0	0.81	0.54
225 L2 HuddleRm_257	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
226 L2 HuddleRm_259	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
227 L2 HuddleRm_260	Huddle	5	5	0.06	146	34	Y	-	34	0.8	42	100	100	30	50.0	0.84	0.50
228 L2 HuddleRm_261	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
229 L2 HuddleRm_262	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
230 L2 HuddleRm_263	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
231 L2 HuddleRm_264	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
232 L2 HuddleRm_265	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
233 L2 HuddleRm_266	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
234 L2 HuddleRm_267	Huddle	5	5	0.06	152	33	Y	-	34	0.8	43	122	122	37	55.0	0.78	0.57
235 L2 HuddleRm_268	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
236 L2 HuddleRm_270	Huddle	5	5	0.06	97	51	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
237 L2 HuddleRm_271	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
238 L2 HuddleRm_273	Huddle	5	5	0.06	101	50	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
239 L2 ConferenceRm_275	Conference	5	10	0.06	261	38	Y	-	66	0.8	82	300	300	90	100.0	0.82	0.53
240 L2 HuddleRm_287	Huddle	5	5	0.06	139	36	Y	-	33	0.8	42	100	100	30	50.0	0.83	0.51
241 L2 HuddleRm_289	Huddle	5	5	0.06	132	38	Y	-	33	0.8	41	100	100	30	50.0	0.82	0.52
242 L2 HuddleRm_291	Huddle	5	5	0.06	131	38	Y	-	33	0.8	41	100	100	30	50.0	0.82	0.52
243 L2 HuddleRm_293	Huddle	5	5	0.06	130	39	Y	-	33	0.8	41	100	100	30	50.0	0.82	0.53
246 L2 Library_281	Workspace	5	17	0.06	690	25	-	-	126	0.8	158	375	375	113	190.0	0.83	0.51
250 L2 OfficeZoneB_283_Ext1	Workspace	5	17	0.06	1022	17	-	-	146	0.8	183	450	450	135	220.0	0.83	0.51
251 L2 OfficeZoneB_283_Ext2	Workspace	5	17	0.06	1067	16	-	-	149	0.8	186	450	450	135	225.0	0.83	0.52
252 L2 OfficeZoneB_283_Ext3	Workspace	5	17	0.06	1093	16	-	-	151	0.8	188	450	450	135	225.0	0.84	0.51
253 L2 OfficeZoneB_283_Ext4	Workspace	5	17	0.06	842	20	-	-	136	0.8	169	450	450	135	205.0	0.83	0.52
254 L2 OfficeZoneB_283_Ext5	Workspace	5	25	0.06	1075	23	-	-	190	0.8	237	650	650	195	280.0	0.85	0.50
255 L2 OfficeZoneB_283_Int1	Workspace	5	8	0.06	435	18	-	-	66	0.8	83	150	150	45	100.0	0.83	0.52
256 L2 OfficeZoneB_283_Int2	Workspace	5	8	0.06	454	18	-	-	67	0.8	84	150	150	45	100.0	0.84	0.51
257 L2 OfficeZoneB_283_Int3	Workspace	5	8	0.06	465	17	-	-	68	0.8	85	150	150	45	105.0	0.81	0.54
258 L2 OfficeZoneB_283_Int4	Workspace	5	8	0.06	358	22	-	-	62	0.8	77	150	150	45	95.0	0.81	0.54
263 L2 QuietRm_277	Workspace	5	6	0.06	251	24	-	-	45	0.8	56	200	200	60	70.0	0.80	0.54
270 L2 Storage_276	Storage	5	0	0.12	54	0	-	-	6	0.8	8	25	25	8	10.0	0.81	0.54
306 L3 CollabArea_374	Workspace	5	7	0.06	279	25	Y	-	52	0.8	65	150	150	45	80.0	0.81	0.54
307 L3 CollabArea_381	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	100	100	30	50.0	0.78	0.57
308 L3 CollabArea_395	Workspace	5	12	0.06	505	24	-	-	90	0.8	113	300	300	90	135.0	0.84	0.51
311 L3 ConferenceRm_375	Conference	5	10	0.06	261	38	Y	-	66	0.8	82	300	300	90	100.0	0.82	0.53
312 L3 ConferenceRm_397	Conference	5	9	0.06	302	30	Y	-	63	0.8	79	325	325	98	100.0	0.79	0.56
313 L3 ConferenceRm_398	Conference	5	9	0.06	418	22	-	-	70	0.8	88	325	325	98	105.0	0.83	0.51
319 L3 HuddleCorridor	Corridor	0	0	0.06	608	0	-	-	36	0.8	46	50	55	17	55.0	0.83	0.52
326 L3 HuddleRm_352	Huddle	5	5	0.06	103	48	Y	-	31	0.8	39	100	100	30	50.0	0.78	0.57
327 L3 HuddleRm_354	Huddle	5	5	0.06	99	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57

Ds	Vdz-min > Vdz-min-uncorr	Vdz-des > Vdz-min	VAV
0.45 Y	Y		VAV 1.31
0.45 Y	Y		VAV 1.31
0.45 Y	Y		VAV 1.28
0.45 Y	Y		VAV 1.34
0.45 Y	Y		VAV 1.28
0.45 Y	Y		VAV 1.34
0.45 Y	Y		VAV 1.27
0.45 Y	Y		VAV 1.34
0.41 Y	Y		VAV 1.27
0.45 Y	Y		VAV 1.35
0.45 Y	Y		VAV 1.35
0.45 Y	Y		VAV 1.35
0.30 Y	Y		VAV 1.33
0.40 Y	Y		VAV 1.33
0.63 Y	Y		VAV 1.29
0.49 Y	Y		VAV 1.37
0.64 Y	Y		VAV 1.36
0.71 Y	Y		VAV 1.33
0.93 Y	Y		VAV 1.30
0.83 Y	Y		VAV 1.39
0.80 Y	Y		VAV 1.39
0.78 Y	Y		VAV 1.32
0.59 Y	Y		VAV 1.38
0.53 Y	Y		VAV 2.31
0.38 Y	Y		VAV 2.41
1.00 Y	Y		VAV 2.31
0.50 Y	Y		VAV 2.23
0.50 Y	Y		VAV 2.23
0.41 Y	Y		VAV 2.24
0.50 Y	Y		VAV 2.23
0.41 Y	Y		VAV 2.24
0.41 Y	Y		VAV 2.24
0.50 Y	Y		VAV 2.25
0.41 Y	Y		VAV 2.26
0.50 Y	Y		VAV 2.27
0.41 Y	Y		VAV 2.28
0.50 Y	Y		VAV 2.27
0.45 Y	Y		VAV 2.28
0.50 Y	Y		VAV 2.29
0.50 Y	Y		VAV 2.29
0.41 Y	Y		VAV 2.30
0.41 Y	Y		VAV 2.30
0.33 Y	Y		VAV 2.32
0.50 Y	Y		VAV 2.33
0.50 Y	Y		VAV 2.33
0.50 Y	Y		VAV 2.34
0.50 Y	Y		VAV 2.34
0.51 Y	Y		VAV 2.42
0.49 Y	Y		VAV 2.19
0.50 Y	Y		VAV 2.20
0.50 Y	Y		VAV 2.36
0.46 Y	Y		VAV 2.37
0.43 Y	Y		VAV 2.40
0.67 Y	Y		VAV 2.21
0.67 Y	Y		VAV 2.22
0.70 Y	Y		VAV 2.38
0.63 Y	Y		VAV 2.39
0.35 Y	Y		VAV 2.35
0.40 Y	Y		VAV 2.31
0.53 Y	Y		VAV 3.31
0.50 Y	Y		VAV 3.33
0.45 Y	Y		VAV 3.39
0.33 Y	Y		VAV 3.32
0.31 Y	Y		VAV 3.41
0.32 Y	Y		VAV 3.40
1.00 Y	Y		VAV 3.31
0.50 Y	Y		VAV 3.23
0.50 Y	Y		VAV 3.23

04/21/14 - modified flow due to ACB quantity limit
04/21/14 - modified flow due to ACB quantity limit

modified occupancy category from workspace to swing due to space change
flow rounded up to allow for Evz – 0.5

flow rounded up to allow for Evz – 0.5
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328 L3 HuddleRm_355	Huddle	5	5	0.06	104	48	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.56
329 L3 HuddleRm_356	Huddle	5	5	0.06	124	40	Y	-	32	0.8	41	100	100	30	50.0	0.81	0.54
330 L3 HuddleRm_357	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
331 L3 HuddleRm_359	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
332 L3 HuddleRm_360	Huddle	5	5	0.06	146	34	Y	-	34	0.8	42	100	100	30	50.0	0.84	0.50
333 L3 HuddleRm_361	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
334 L3 HuddleRm_362	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
335 L3 HuddleRm_363	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
336 L3 HuddleRm_364	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
337 L3 HuddleRm_365	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
338 L3 HuddleRm_366	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
339 L3 HuddleRm_367	Huddle	5	5	0.06	152	33	Y	-	34	0.8	43	122	122	37	55.0	0.78	0.57
340 L3 HuddleRm_368	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
341 L3 HuddleRm_370	Huddle	5	5	0.06	97	51	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
342 L3 HuddleRm_371	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
343 L3 HuddleRm_373	Huddle	5	5	0.06	101	50	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
348 L3 OfficeZoneB_383_Ext1	Workspace	5	17	0.06	1022	17	-	-	146	0.8	183	450	450	135	220.0	0.83	0.51
349 L3 OfficeZoneB_383_Ext2	Workspace	5	17	0.06	1067	16	-	-	149	0.8	186	450	450	135	225.0	0.83	0.52
350 L3 OfficeZoneB_383_Ext3	Workspace	5	17	0.06	1093	16	-	-	151	0.8	188	450	450	135	225.0	0.84	0.51
351 L3 OfficeZoneB_383_Ext4	Workspace	5	17	0.06	1162	15	-	-	155	0.8	193	450	450	135	230.0	0.84	0.51
352 L3 OfficeZoneB_383_Int1	Workspace	5	8	0.06	435	18	-	-	66	0.8	83	150	150	45	100.0	0.83	0.52
353 L3 OfficeZoneB_383_Int2	Workspace	5	8	0.06	454	18	-	-	67	0.8	84	150	150	45	100.0	0.84	0.51
354 L3 OfficeZoneB_383_Int3	Workspace	5	8	0.06	467	17	-	-	68	0.8	85	150	150	45	105.0	0.81	0.54
355 L3 OfficeZoneB_383_Int4	Workspace	5	8	0.06	515	16	-	-	71	0.8	89	150	150	45	105.0	0.84	0.50
361 L3 QuietRm_377	Huddle	5	6	0.06	251	24	-	-	45	0.8	56	200	200	60	70.0	0.80	0.54
367 L3 Storage_376	Storage	5	0	0.12	54	0	-	-	6	0.8	8	25	25	8	10.0	0.81	0.54
406 L4 CollabArea_474	Workspace	5	7	0.06	279	25	Y	-	52	0.8	65	175	175	53	80.0	0.81	0.54
407 L4 CollabArea_481	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	150	150	45	50.0	0.78	0.57
408 L4 CollabArea_487	Huddle	5	5	0.06	93	54	Y	-	31	0.8	38	150	150	45	50.0	0.76	0.58
409 L4 CollabArea_495	Workspace	5	12	0.06	436	28	Y	-	86	0.8	108	300	300	90	130.0	0.83	0.52
412 L4 ConferenceRm_475	Conference	5	10	0.06	261	38	Y	-	66	0.8	82	244	244	73	100.0	0.82	0.53
413 L4 ConferenceRm_497	Conference	5	18	0.06	778	23	-	-	137	0.8	171	600	600	180	205.0	0.83	0.51
419 L4 HuddleCorridor	Corridor	0	0	0.06	608	0	-	-	36	0.8	46	50	55	17	55.0	0.83	0.52
426 L4 HuddleRm_452	Huddle	5	5	0.06	103	48	Y	-	31	0.8	39	100	100	30	50.0	0.78	0.57
427 L4 HuddleRm_454	Huddle	5	5	0.06	99	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
428 L4 HuddleRm_455	Huddle	5	5	0.06	107	47	Y	-	31	0.8	39	122	122	37	50.0	0.79	0.56
429 L4 HuddleRm_456	Huddle	5	5	0.06	124	40	Y	-	32	0.8	41	100	100	30	50.0	0.81	0.54
430 L4 HuddleRm_457	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
431 L4 HuddleRm_459	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
432 L4 HuddleRm_460	Huddle	5	5	0.06	146	34	Y	-	34	0.8	42	100	100	30	50.0	0.84	0.50
433 L4 HuddleRm_461	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
434 L4 HuddleRm_462	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
435 L4 HuddleRm_463	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
436 L4 HuddleRm_464	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
437 L4 HuddleRm_465	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
438 L4 HuddleRm_466	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
439 L4 HuddleRm_467	Huddle	5	5	0.06	152	33	Y	-	34	0.8	43	122	122	37	55.0	0.78	0.57
440 L4 HuddleRm_468	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
441 L4 HuddleRm_470	Huddle	5	5	0.06	97	51	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.57
442 L4 HuddleRm_471	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
443 L4 HuddleRm_473	Huddle	5	5	0.06	101	50	Y	-	31	0.8	39	122	122	37	50.0	0.78	0.57
447 L4 OfficeZoneB_483_Ext1	Workspace	5	17	0.06	1022	17	-	-	146	0.8	183	600	600	180	220.0	0.83	0.51
448 L4 OfficeZoneB_483_Ext2	Workspace	5	17	0.06	1067	16	-	-	149	0.8	186	600	600	180	225.0	0.83	0.52
449 L4 OfficeZoneB_483_Ext3	Workspace	5	17	0.06	1093	16	-	-	151	0.8	188	600	600	180	225.0	0.84	0.51
450 L4 OfficeZoneB_483_Ext4	Workspace	5	17	0.06	1166	15	-	-	155	0.8	194	600	600	180	230.0	0.84	0.50
451 L4 OfficeZoneB_483_Int1	Workspace	5	8	0.06	435	18	-	-	66	0.8	83	150	150	45	100.0	0.83	0.52
452 L4 OfficeZoneB_483_Int2	Workspace	5	8	0.06	454	18	-	-	67	0.8	84	150	150	45	100.0	0.84	0.51
453 L4 OfficeZoneB_483_Int3	Workspace	5	8	0.06	465	17	-	-	68	0.8	85	150	150	45	105.0	0.81	0.54
454 L4 OfficeZoneB_483_Int4	Workspace	5	8	0.06	496	16	-	-	70	0.8	87	150	150	45	105.0	0.83	0.52
460 L4 QuietRm_477	Huddle	5	6	0.06	251	24	-	-	45	0.8	56	200	200	60	70.0	0.80	0.54
466 L4 Storage_476	Storage	5	0	0.12	54	0	-	-	6	0.8	8	25	25	8	10.0	0.81	0.54
					DCV Total	2829						26845					

Step #:	min % peak	30%
5	D	0.9
6	Vou (cfm)	8355
7	Vps	24161
8	Xs	0.346
10	Ev	0.50
11	Vot	16855
	Zmax	0.85

0.41 Y	Y	VAV 3.24
0.50 Y	Y	VAV 3.23
0.41 Y	Y	VAV 3.24
0.41 Y	Y	VAV 3.24
0.50 Y	Y	VAV 3.25
0.41 Y	Y	VAV 3.26
0.50 Y	Y	VAV 3.25
0.41 Y	Y	VAV 3.26
0.50 Y	Y	VAV 3.27
0.41 Y	Y	VAV 3.28
0.50 Y	Y	VAV 3.27
0.45 Y	Y	VAV 3.28
0.50 Y	Y	VAV 3.29
0.50 Y	Y	VAV 3.29
0.41 Y	Y	VAV 3.30
0.41 Y	Y	VAV 3.30
0.49 Y	Y	VAV 3.19
0.50 Y	Y	VAV 3.20
0.50 Y	Y	VAV 3.35
0.51 Y	Y	VAV 3.36
0.67 Y	Y	VAV 3.21
0.67 Y	Y	VAV 3.22
0.70 Y	Y	VAV 3.37
0.70 Y	Y	VAV 3.38
0.35 Y	Y	VAV 3.34
0.40 Y	Y	VAV 3.31
0.46 Y	Y	VAV 4.32
0.33 Y	Y	VAV 4.35
0.33 Y	Y	VAV 4.35
0.43 Y	Y	VAV 4.41
0.41 Y	Y	VAV 4.33
0.34 Y	Y	VAV 4.42
1.00 Y	Y	VAV 4.32
0.50 Y	Y	VAV 4.24
0.50 Y	Y	VAV 4.24
0.41 Y	Y	VAV 4.25
0.50 Y	Y	VAV 4.24
0.41 Y	Y	VAV 4.25
0.41 Y	Y	VAV 4.25
0.50 Y	Y	VAV 4.26
0.41 Y	Y	VAV 4.27
0.50 Y	Y	VAV 4.26
0.41 Y	Y	VAV 4.27
0.50 Y	Y	VAV 4.28
0.41 Y	Y	VAV 4.29
0.50 Y	Y	VAV 4.28
0.45 Y	Y	VAV 4.29
0.50 Y	Y	VAV 4.30
0.50 Y	Y	VAV 4.30
0.41 Y	Y	VAV 4.31
0.41 Y	Y	VAV 4.31
0.37 Y	Y	VAV 4.20
0.38 Y	Y	VAV 4.21
0.38 Y	Y	VAV 4.37
0.38 Y	Y	VAV 4.38
0.67 Y	Y	VAV 4.22
0.67 Y	Y	VAV 4.23
0.70 Y	Y	VAV 4.39
0.70 Y	Y	VAV 4.40
0.35 Y	Y	VAV 4.36
0.40 Y	Y	VAV 4.32

occupancy category changed from workspace to huddle

flow rounded up to allow for Evz ~ 0.5

occupancy category changed from workspace to huddle

18 April 2014

Step #:									1	2	3					4	9
Zone	Occupancy Category	Rp cfm/p	Pz-des person	Ra cfm/sf	Az sf	Density pp/1000SF	CO2 for LEED?	DCV for 90.1?	Vbz cfm	Ez	Voz cfm	Vdz-uncor cfm	Vdz-des cfm	Vdz-min-uncor cfm	Vdz-min cfm	Zdz	Evz
203 L2 CollabArea_208	Workspace	5	10	0.06	367	27	Y	-	72	0.8	90	225	225	68	115.0	0.78	0.51
204 L2 CollabArea_240	Workspace	5	20	0.06	939	21	-	-	156	0.8	156	475	475	143	200.0	0.78	0.51
213 L2 HubLounge_251	Lobby	5	16	0.06	931	17	-	-	136	0.8	170	488	488	146	215.0	0.79	0.50
215 L2 HuddleRm_210	Huddle	5	5	0.06	126	40	Y	-	33	0.8	41	100	100	30	55.0	0.74	0.56
216 L2 HuddleRm_212	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.78	0.52
217 L2 HuddleRm_214	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.78	0.52
218 L2 HuddleRm_216	Huddle	5	5	0.06	97	51	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.52
219 L2 HuddleRm_218	Huddle	5	5	0.06	135	37	Y	-	33	0.8	41	100	100	30	55.0	0.75	0.54
220 L2 HuddleRm_220	Huddle	5	5	0.06	108	46	Y	-	31	0.8	39	100	100	30	50.0	0.79	0.51
245 L2 Library_235	Workspace	5	23	0.06	983	23	-	-	174	0.8	218	525	525	158	275.0	0.79	0.50
248 L2 OfficeZoneA_231_Ext1	Workspace	5	14	0.06	931	15	-	-	126	0.8	157	450	450	135	200.0	0.79	0.51
249 L2 OfficeZoneA_231_Ext2	Workspace	5	14	0.06	1042	13	-	-	132	0.8	166	450	450	135	210.0	0.79	0.51
259 L2 OfficeZoneC_215_Ext1	Workspace	5	6	0.06	505	12	-	-	60	0.8	75	200	200	60	95.0	0.79	0.50
260 L2 OfficeZoneC_215_Ext2	Workspace	5	12	0.06	822	15	-	-	109	0.8	137	450	450	135	175.0	0.78	0.51
261 L2 OfficeZoneC_215_Ext3	Workspace	5	10	0.06	746	13	-	-	95	0.8	118	450	450	135	150.0	0.79	0.50
262 L2 Pantry_240A	Storage	5	3	0.12	136	22	-	-	31	0.8	39	50	75	23	75.0	0.52	0.77
265 L2 SwingSpace_209	Swing	5	12	0.06	561	21	-	-	94	0.8	117	400	400	120	150.0	0.78	0.51
303 L3 CollabArea_308	Workspace	5	10	0.06	367	27	Y	-	72	0.8	90	225	225	68	115.0	0.78	0.51
304 L3 CollabArea_335	Huddle	5	5	0.06	101	50	Y	-	31	0.8	39	100	100	30	50.0	0.78	0.52
305 L3 CollabArea_340	Workspace	5	20	0.06	989	20	-	-	159	0.8	159	475	475	143	205.0	0.78	0.52
318 L3 HubLounge_351	Lobby	5	16	0.06	746	21	-	-	125	0.8	156	488	488	146	200.0	0.78	0.51
320 L3 HuddleRm_310	Huddle	5	5	0.06	126	40	Y	-	33	0.8	41	100	100	30	55.0	0.74	0.56
321 L3 HuddleRm_312	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.78	0.52
322 L3 HuddleRm_314	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.78	0.52
323 L3 HuddleRm_316	Huddle	5	5	0.06	97	51	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.52
324 L3 HuddleRm_318	Huddle	5	5	0.06	135	37	Y	-	33	0.8	41	100	100	30	55.0	0.75	0.54
325 L3 HuddleRm_320	Huddle	5	5	0.06	108	46	Y	-	31	0.8	39	100	100	30	50.0	0.79	0.51
346 L3 OfficeZoneA_331_Ext2	Workspace	5	14	0.06	1039	13	-	-	132	0.8	165	450	450	135	210.0	0.79	0.51
347 L3 OfficeZoneA_331_Ext1	Workspace	5	14	0.06	931	15	-	-	126	0.8	157	450	450	135	200.0	0.79	0.51
356 L3 OfficeZoneC_315_Ext3	Workspace	5	12	0.06	822	15	-	-	109	0.8	137	450	450	135	175.0	0.78	0.51
357 L3 OfficeZoneC_315_Ext4	Workspace	5	10	0.06	940	11	-	-	106	0.8	133	450	450	135	170.0	0.78	0.51
358 L3 OfficeZoneC_315_Ext2	Workspace	5	6	0.06	468	13	-	-	58	0.8	73	200	200	60	95.0	0.76	0.53
359 L3 OfficeZoneC_315_Ext1	Workspace	5	0	0.06	36	0	-	-	2	0.8	3	50	50	15	15.0	0.18	1.12
360 L3 Pantry_340A	Storage	5	3	0.12	136	22	-	-	31	0.8	39	50	75	23	75.0	0.52	0.77
362 L3 SwingSpace_309	Swing	5	12	0.06	561	21	-	-	94	0.8	117	400	400	120	150.0	0.78	0.51
403 L4 CollabArea_408	Workspace	5	10	0.06	367	27	Y	-	72	0.8	90	225	225	68	115.0	0.78	0.51
404 L4 CollabArea_439	Huddle	5	5	0.06	101	49	Y	-	31	0.8	39	150	150	45	50.0	0.78	0.52
405 L4 CollabArea_440	Workspace	5	20	0.06	935	21	-	-	156	0.8	195	475	475	143	250.0	0.78	0.51
418 L4 HubLounge_451	Lobby	5	16	0.06	747	21	-	-	125	0.8	156	488	488	146	200.0	0.78	0.51
420 L4 HuddleRm_410	Huddle	5	5	0.06	126	40	Y	-	33	0.8	41	100	100	30	55.0	0.74	0.56
421 L4 HuddleRm_412	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.78	0.52
422 L4 HuddleRm_414	Huddle	5	5	0.06	100	50	Y	-	31	0.8	39	100	100	30	50.0	0.78	0.52
423 L4 HuddleRm_416	Huddle	5	5	0.06	97	51	Y	-	31	0.8	39	100	100	30	50.0	0.77	0.52
424 L4 HuddleRm_418	Huddle	5	5	0.06	135	37	Y	-	33	0.8	41	100	100	30	55.0	0.75	0.54
425 L4 HuddleRm_420	Huddle	5	5	0.06	108	46	Y	-	31	0.8	39	100	100	30	50.0	0.79	0.51
445 L4 OfficeZoneA_431_Ext2	Workspace	5	14	0.06	999	14	-	-	130	0.8	162	600	600	180	205.0	0.79	0.50
446 L4 OfficeZoneA_431_Ext1	Workspace	5	14	0.06	894	16	-	-	124	0.8	155	600	600	180	195.0	0.79	0.50
455 L4 OfficeZoneC_415_Ext2	Workspace	5	12	0.06	822	15	-	-	109	0.8	137	450	450	135	175.0	0.78	0.51
456 L4 OfficeZoneC_415_Ext3	Workspace	5	10	0.06	940	11	-	-	106	0.8	133	450	450	135	170.0	0.78	0.51
457 L4 OfficeZoneC_415_Ext1	Workspace	5	6	0.06	472	13	-	-	58	0.8	73	200	200	60	95.0	0.77	0.53
459 L4 Pantry_440A	Storage	5	3	0.12	136	22	-	-	31	0.8	39	50	75	23	75.0	0.52	0.77
461 L4 SwingSpace_409	Swing	5	12	0.06	549	22	-	-	93	0.8	116	400	400	120	150.0	0.77	0.52

DCV Total 1468

13914

Step #:	min % peak	30%
5	D	0.85
6	Vou (cfm)	3483
7	Vps	11827
8	Xs	0.294
10	Ev	0.50
11	Vot	6948
	Zmax	0.79

Ds	Vdz-min > Vdz-min-uncorr	Vdz-des > Vdz-min	VAV
0.51 Y	Y	Y	VAV 2.4
0.42 Y	Y	Y	VAV 2.9
0.44 Y	Y	Y	VAV 2.16
0.55 Y	Y	Y	VAV 2.10
0.50 Y	Y	Y	VAV 2.10
0.50 Y	Y	Y	VAV 2.11
0.50 Y	Y	Y	VAV 2.11
0.55 Y	Y	Y	VAV 2.14
0.50 Y	Y	Y	VAV 2.14
0.52 Y	Y	Y	VAV 2.7
0.44 Y	Y	Y	VAV 2.5
0.47 Y	Y	Y	VAV 2.6
0.48 Y	Y	Y	VAV 2.3
0.39 Y	Y	Y	VAV 2.12
0.33 Y	Y	Y	VAV 2.13
1.00 Y	Y	Y	VAV 2.9
0.38 Y	Y	Y	VAV 2.3
0.51 Y	Y	Y	VAV 3.4
0.50 Y	Y	Y	VAV 3.7
0.43 Y	Y	Y	VAV 3.9
0.41 Y	Y	Y	VAV 3.16
0.55 Y	Y	Y	VAV 3.10
0.50 Y	Y	Y	VAV 3.10
0.50 Y	Y	Y	VAV 3.11
0.50 Y	Y	Y	VAV 3.11
0.55 Y	Y	Y	VAV 3.14
0.50 Y	Y	Y	VAV 3.14
0.47 Y	Y	Y	VAV 3.6
0.44 Y	Y	Y	VAV 3.5
0.39 Y	Y	Y	VAV 3.12
0.38 Y	Y	Y	VAV 3.13
0.48 Y	Y	Y	VAV 3.3
0.30 Y	Y	Y	VAV 3.3
1.00 Y	Y	Y	VAV 3.9
0.38 Y	Y	Y	VAV 3.3
0.51 Y	Y	Y	VAV 4.4
0.33 Y	Y	Y	VAV 4.7
0.53 Y	Y	Y	VAV 4.9
0.41 Y	Y	Y	VAV 4.17
0.55 Y	Y	Y	VAV 4.10
0.50 Y	Y	Y	VAV 4.10
0.50 Y	Y	Y	VAV 4.11
0.50 Y	Y	Y	VAV 4.11
0.55 Y	Y	Y	VAV 4.14
0.50 Y	Y	Y	VAV 4.14
0.34 Y	Y	Y	VAV 4.6
0.33 Y	Y	Y	VAV 4.5
0.39 Y	Y	Y	VAV 4.12
0.38 Y	Y	Y	VAV 4.13
0.48 Y	Y	Y	VAV 4.3
1.00 Y	Y	Y	VAV 4.9
0.38 Y	Y	Y	VAV 4.3

100% of exhaust supplied

100% of exhaust supplied

100% of exhaust supplied

18 April 2014

Step #:									1	2	3					4	9
Zone	Occupancy Category	Rp cfm/p	Pz-des person	Ra cfm/sf	Az sf	Density pp/1000SF	CO2 for LEED?	DCV for 90.1?	Vbz cfm	Ez	Voz cfm	Vdz-uncor cfm	Vdz-des cfm	Vdz-min-uncor cfm	Vdz-min cfm	Zdz	Evz
3 L0 Corridor_B0041	Corridor	0	0	0.06	424	0	-	-	25	0.8	32	50	50	15	45.0	0.71	0.51
4 L0 Corridor_B0043	Corridor	0	0	0.06	401	0	-	-	24	0.8	30	25	50	15	45.0	0.67	0.55
7 L0 CustodialRecycling_B0061	Corridor	0	0	0.06	580	0	-	-	35	0.8	44	50	65	20	65.0	0.67	0.55
8 L0 EFRm_B11	MEP	5	0	0.06	37	0	-	-	2	0.8	3	25	25	8	10.0	0.28	0.94
11 L0 EventStorage_B16	Storage	5	0	0.12	410	0	-	-	49	0.8	62	25	90	27	90.0	0.68	0.54
13 L0 FoodPrep_B04	Food	8	2	0.18	641	3	-	-	130	0.8	163	700	930	279	930.0	0.18	1.05
15 L0 FoodServOff_B04C	Workspace	5	1	0.06	84	12	-	-	10	0.8	13	50	50	15	20.0	0.63	0.59
16 L0 FoodStorage_B04A	Storage	0	0	0.00	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	75	23	75.0	0.00	1.22
17 L0 FoodWaste_B04D	MEP	0	0	0.00	0	#DIV/0!	#DIV/0!	-	0	0.8	0	925	925	278	925.0	0.00	1.22
34 L0 WalkInRefrig_B04B	Storage	5	0	0.12	122	0	-	-	15	0.8	18	50	50	15	30.0	0.61	0.61
103 L1 BathroomMen_10020	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	180	54	180.0	0.00	1.22
104 L1 BathroomWomen_10021	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	180	54	180.0	0.00	1.22
105 L1 Cafe_101_SE1	Cafe	8	20	0.18	482	41	Y	-	237	0.8	296	675	675	203	415.0	0.71	0.51
106 L1 Cafe_101_SE2	Cafe	8	20	0.18	569	35	Y	-	252	0.8	316	700	700	210	440.0	0.72	0.50
107 L1 Cafe_101_SW1	Cafe	8	44	0.18	703	63	Y	Y	457	0.8	571	1800	1800	540	795.0	0.72	0.50
108 L1 Cafe_101_SW2	Cafe	8	28	0.18	433	65	Y	-	288	0.8	360	950	950	285	505.0	0.71	0.51
109 L1 Cafe_101_W	Cafe	8	5	0.18	250	20	-	-	82	0.8	103	750	750	225	225.0	0.46	0.76
138 L1 MainLounge_115_Ext1	Lobby	5	16	0.06	319	50	Y	-	99	0.8	124	625	625	188	190.0	0.65	0.57
139 L1 MainLounge_115_Ext2	Lobby	5	4	0.06	249	16	-	-	35	0.8	44	325	325	98	100.0	0.44	0.78
140 L1 MainLounge_115_Ext3	Lobby	5	10	0.06	234	43	Y	-	64	0.8	80	350	350	105	115.0	0.70	0.52
141 L1 MainLounge_115_Ext4	Lobby	5	40	0.06	573	70	Y	Y	234	0.8	293	1050	1050	315	410.0	0.71	0.51
142 L1 MainLounge_115_Int	Lobby	5	31	0.06	561	55	Y	Y	189	0.8	236	750	750	225	330.0	0.71	0.51
159 L1 Servery_108_E	Food	8	9	0.18	423	21	-	-	144	0.8	179	1100	1100	330	330.0	0.54	0.68
160 L1 Servery_108_SE	Food	8	15	0.18	732	21	-	-	244	0.8	305	925	925	278	425.0	0.72	0.50
161 L1 Servery_108_SW	Food	8	8	0.18	364	22	-	-	126	0.8	157	575	575	173	220.0	0.71	0.51
162 L1 ServiceCorridor_10040	Corridor	0	0	0.06	152	0	-	-	9	0.8	11	25	25	8	20.0	0.57	0.65
163 L1 Storage_104	Food	8	1	0.18	167	6	-	-	38	0.8	47	100	200	60	100.0	0.47	0.75
169 L1 VestMen_10054	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	45	14	45.0	0.00	1.22
172 L1 VestWomen_10053	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	45	14	45.0	0.00	1.22
DCV Total					1138								13560				

7305		
Step #:	min % peak	30%
5	D	0.85
6	Vou (cfm)	2541
7	Vps	11526
8	Xs	0.220
10	Ev	0.50
11	Vot	5058
	Zmax	0.72

Ds	Vdz-min > Vdz-min-uncorr	Vdz-des > Vdz-min	VAV
0.90 Y	Y	Y	VAV 0.2
0.90 Y	Y	Y	VAV 0.4
1.00 Y	Y	Y	VAV 0.3
0.40 Y	Y	Y	VAV 0.4
1.00 Y	Y	Y	VAV 0.4
1.00 Y	Y	Y	VAV 0.1
0.40 Y	Y	Y	VAV 0.1
1.00 Y	Y	Y	VAV 0.1
1.00 Y	Y	Y	VAV 0.2
0.60 Y	Y	Y	VAV 0.1
1.00 Y	Y	Y	VAV 1.12
1.00 Y	Y	Y	VAV 1.12
0.61 Y	Y	Y	VAV 1.7
0.63 Y	Y	Y	VAV 1.6
0.44 Y	Y	Y	VAV 1.2 & VAV 1.40
0.53 Y	Y	Y	VAV 1.5
0.30 Y	Y	Y	VAV 1.1
0.30 Y	Y	Y	VAV 1.10 (650/190)
0.31 Y	Y	Y	VAV 1.9 (250/100)
0.33 Y	Y	Y	VAV 1.9 (200/60) & 1.13 (200/55)
0.39 Y	Y	Y	VAV 1.13 (210/85) & 1.14 (840/325)
0.44 Y	Y	Y	VAV 1.11
0.30 Y	Y	Y	VAV 1.11 (820/330)
0.46 Y	Y	Y	VAV 1.8 (1205/425)
0.38 Y	Y	Y	VAV 1.4
0.80 Y	Y	Y	VAV 1.3
0.50 Y	Y	Y	VAV 1.3
1.00 Y	Y	Y	VAV 1.12
1.00 Y	Y	Y	VAV 1.12

Flow rounded up to allow for Evz ~ 0.5
490 cfm exhaust, pressurization handled by SF

flow rounded up to allow for Evz ~ 0.5
230 cfm exhaust

100% of exhaust supplied
100% of exhaust supplied

80% of supply to 103 L1 BathroomMen_10020
80% of supply to 104 L1 BathroomWomen_10021

300 cfm exhaust
200 cfm exhaust
200 cfm exhaust

100 cfm exhaust
20% of supply to 103 L1 BathroomMen_10020
20% of supply to 104 L1 BathroomWomen_10021

2970

18 April 2014

Zone	Occupancy Category	Rp cfm/p	Pz-des person	Ra cfm/sf	Az sf	Density pp/1000SF	CO2 for LEED?	DCV for 90.1?	Step #:								4	9					
									1	2	3	Vbz cfm	Ez	Voz cfm	Vdz-uncor cfm	Vdz-des cfm			Vdz-min-uncor cfm	Vdz-min cfm			
1 L0 Bathroom_B00A	Corridor	0	0	0.00	0	#DIV/0!	#DIV/0!	-	0	0.8	0	75	585	176	585.0	0.00	1.35						
2 L0 Bathroom_B00B	Corridor	0	0	0.00	0	#DIV/0!	#DIV/0!	-	0	0.8	0	50	840	252	840.0	0.00	1.35						
5 L0 Corridor_B0050	Corridor	0	0	0.06	882	0	-	-	53	0.8	66	75	80	24	80.0	0.83	0.52						
6 L0 Corridor_Int	Corridor	0	0	0.06	238	0	-	-	14	0.8	18	50	50	15	25.0	0.71	0.64						
12 L0 SecEquipRm_B0070	MEP	5	3	0.06	241	12	-	-	29	0.8	37	50	50	15	45.0	0.82	0.53						
19 L0 ITDepot_B72	IT	5	0	0.06	147	0	-	-	9	0.8	11	575	575	173	175.0	0.06	1.29						
20 L0 Janitor_B0079	Corridor	0	0	0.00	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	75	23	75.0	0.00	1.35						
21 L0-1 Lecture Hall_131_Ext	Lecture	8	68	0.06	862	79	Y	Y	562	0.8	702	1625	1625	488	825.0	0.85	0.50						
22 L0 LockerRm_B80	Corridor	0	5	0.06	423	12	-	-	25	0.8	32	75	75	23	40.0	0.79	0.56						
24 L0 MainElecRm_B0068	MEP	5	0	0.06	78	0	-	-	5	0.8	6	25	25	8	10.0	0.59	0.76						
25 L0 FirePumpRm_B0069	MEP	5	0	0.06	276	0	-	-	17	0.8	21	25	25	8	25.0	0.83	0.52						
26 L0 Seminar_B61	Seminar	8	72	0.06	1147	63	Y	Y	609	0.8	761	1450	1450	435	895.0	0.85	0.50						
27 L0 Seminar_B73	Seminar	8	74	0.06	1175	63	Y	Y	626	0.8	782	1475	1475	443	920.0	0.85	0.50						
28 L0 Seminar_B81	Seminar	8	55	0.06	1175	47	Y	Y	483	0.8	604	1250	1250	375	710.0	0.85	0.50						
29 L0 Seminar_B91	Seminar	8	55	0.06	1183	46	Y	Y	483	0.8	604	1275	1275	383	710.0	0.85	0.50						
31 L0 Storage_B82	Storage	5	2	0.12	87	23	-	-	20	0.8	26	25	30	9	30.0	0.85	0.50						
33 L0 Vestibule_B0048	Corridor	0	0	0.06	98	0	-	-	6	0.8	7	25	25	8	10.0	0.73	0.62						
38 L0-1 Lecture Hall_131_Int	Lecture	8	68	0.06	886	77	Y	Y	563	0.8	704	1275	1275	383	830.0	0.85	0.50						
133 L1 LectureHall_131	Lecture	8	68	0.06	916	74	Y	Y	565	0.8	706	1275	1275	383	830.0	0.85	0.50						
157 L1 SeminarRm_161	Seminar	8	94	0.06	1108	85	Y	Y	771	0.8	964	2050	2050	615	1135.0	0.85	0.50						
158 L1 SeminarRm_165	Seminar	8	94	0.06	1134	83	Y	Y	773	0.8	966	2075	2075	623	1135.0	0.85	0.50						
				DCV Total	729													16185			9930		
																Step #:	min % peak	30%					
																5	D	0.9					
																6	Vou (cfm)	5125					
																7	Vps	14567					
																8	Xs	0.352					
																10	Ev	0.50					
																11	Vot	10278					
																	Zmax	0.85					

Ds	Vdz-min > Vdz-min-uncorr	Vdz-des > Vdz-min	VAV	
1.00 Y		Y	VAV 0.9	100% of supply to 1 L0 Bathroom_B00A corridor
1.00 Y		Y	VAV 0.12	100% of supply to 1 L0 Bathroom_B00A corridor
1.00 Y		Y	VAV 0.8	flow rounded up to allow for Evz ~ 0.5
0.50 Y		Y	VAV 0.7	
0.90 Y		Y	VAV 0.8	
0.30 Y		Y	VAV 0.8	
1.00 Y		Y	VAV 0.9	janitor supply to adjacent corridor
0.51 Y		Y	VAV 1.15	
0.53 Y		Y	VAV 0.14	
0.40 Y		Y	VAV 0.8	
1.00 Y		Y	VAV 0.14	
0.62 Y		Y	VAV 0.10	
0.62 Y		Y	VAV 0.11	
0.57 Y		Y	VAV 0.13	
0.56 Y		Y	VAV 0.15	
1.00 Y		Y	VAV 0.14	flow rounded up to allow for Evz ~ 0.5
0.40 Y		Y	VAV 0.8	
0.65 Y		Y	VAV 1.16	
0.65 Y		Y	VAV 1.17	
0.55 Y		Y	VAV 1.23	
0.55 Y		Y	VAV 1.24	

18 April 2014



Zone	Occupancy Category	Rp cfm/p	Pz-des person	Ra cfm/sf	Az sf	Density pp/1000SF	CO2 for LEED?	Step #: DCV for 90.1?	1	2	3	Vdz-uncor cfm	Vdz-des cfm	Vdz-min-uncor cfm	Vdz-min cfm	4	9
									Vbz cfm	Ez	Voz cfm					Zdz	Evz
9 L0 ElevCntrRm_B0066	MEP	5	2	0.06	161	12	-	-	20	0.8	25	25	40	12	40.0	0.61	0.55
14 L0 Storage_B15	Storage	5	2	0.12	306	7	-	-	47	0.8	58	50	90	27	90.0	0.65	0.52
18 L0 FuelOilRm_B0065	MEP	5	0	0.06	132	0	-	-	8	0.8	10	25	25	8	15.0	0.66	0.51
23 L0 LowerFoyer_B0046	Swing	5	57	0.06	1893	30	Y	-	399	0.8	498	1375	1375	413	745.0	0.67	0.50
30 L0 Storage_B32	Storage	5	2	0.12	148	14	-	-	28	0.8	35	50	55	17	55.0	0.63	0.54
35 L0 WaterServ_B0067	MEP	5	0	0.06	392	0	-	-	24	0.8	29	25	45	14	45.0	0.65	0.52
101 L1-4 Atrium	Lobby	5	6	0.06	355	17	-	-	51	0.8	64	2750	2750	825	825.0	0.08	1.09
102 L1 Bathroom	Corridor	0	0	0.00	0	#DIV/0!	#DIV/0!	-	0	0.8	0	50	960	288	960.0	0.00	1.17
111 L1 Corridor_10045	Corridor	0	0	0.06	120	0	-	-	7	0.8	9	25	25	8	15.0	0.60	0.57
112 L1 Corridor_10049	Corridor	0	0	0.06	341	0	-	-	20	0.8	26	25	50	15	40.0	0.64	0.53
113 L1 Corridor_10050	Corridor	0	0	0.06	643	0	-	-	39	0.8	48	50	75	23	75.0	0.64	0.53
114 L1 ElecRm_10068	MEP	5	0	0.06	102	0	-	-	6	0.8	8	25	25	8	15.0	0.51	0.66
115 L1 ElevLobby_10046_Int1	Lobby	5	12	0.06	1411	9	-	-	145	0.8	181	400	400	120	270.0	0.67	0.50
116 L1 ElevLobby_Int2	Lobby	5	10	0.06	1232	8	-	-	124	0.8	155	350	350	105	235.0	0.66	0.51
130 L1 Janitor_10065	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	75	23	75.0	0.00	1.17
136 L1 MailRm_154	Huddle	5	2	0.06	297	7	-	-	28	0.8	35	125	125	38	55.0	0.63	0.54
137 L1 MainDisconnect_10070	MEP	5	0	0.06	120	0	-	-	7	0.8	9	25	25	8	15.0	0.60	0.57
143 L1 MainLobby_10047_Ext1	Lobby	5	8	0.06	765	10	-	-	86	0.8	107	600	600	180	180.0	0.60	0.57
144 L1 MainLobby_10047_Ext2	Lobby	5	4	0.06	383	10	-	-	43	0.8	54	325	325	98	100.0	0.54	0.63
155 L1 Reception_152	Lobby	5	2	0.06	302	7	-	-	28	0.8	35	75	75	23	55.0	0.64	0.53
156 L1 RPZ_10063	MEP	5	0	0.06	32	0	-	-	2	0.8	2	25	25	8	10.0	0.24	0.93
164 L1 Storage_163	Storage	5	1	0.12	46	22	-	-	10	0.8	13	25	25	8	20.0	0.66	0.51
165 L1 Storage_167	Storage	5	0	0.12	78	0	-	-	9	0.8	12	25	25	8	20.0	0.59	0.58
168 L1 VestMen_10028	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	120	36	120.0	0.00	1.17
171 L1 VestWomen_10026	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	120	36	120.0	0.00	1.17
202 L2 Bathroom	Corridor	0	0	0.00	0	#DIV/0!	#DIV/0!	-	0	0.8	0	50	1080	324	1080.0	0.00	1.17
207 L2 ConferenceRm_201	Conference	5	40	0.06	968	41	Y	Y	258	0.8	323	1000	1000	300	485.0	0.67	0.50
208 L2 ConferenceRm_238	Conference	5	10	0.06	259	39	Y	-	66	0.8	82	200	200	60	125.0	0.66	0.51
209 L2 Corridor_20041	Corridor	0	0	0.06	1310	0	-	-	79	0.8	98	100	150	45	150.0	0.66	0.51
210 L2 Corridor_20050	Corridor	0	0	0.06	1602	0	-	-	96	0.8	120	125	180	54	180.0	0.67	0.50
211 L2 ElecRm_20065	MEP	5	0	0.06	124	0	-	-	7	0.8	9	25	25	8	15.0	0.62	0.55
212 L2 ElecRm_20068	MEP	5	0	0.06	103	0	-	-	6	0.8	8	25	25	8	15.0	0.52	0.65
244 L2 Janitor_20069	Corridor	0	0	0.00	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	75	23	75.0	0.00	1.17
247 L2 MultipurposeRm_205	Conference	5	46	0.06	566	81	Y	Y	264	0.8	330	850	850	255	495.0	0.67	0.50
268 L2 VestMen_20028	Corridor	0	0	0.00	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	135	41	135.0	0.00	1.17
269 L2 VestWomen_20026	Corridor	0	0	0.00	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	135	41	135.0	0.00	1.17
272 L2-4 OpenSpace_East	Corridor	0	0	0.06	381	0	-	-	23	0.8	29	950	950	285	285.0	0.10	1.07
273 L2-3 Multipurpose_S	Conference	5	0	0.06	202	0	-	-	12	0.8	15	200	200	60	60.0	0.25	0.92
302 L3 Bathroom	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	50	1080	324	1080.0	0.00	1.17
309 L3 ConferenceRm_301_W	Conference	5	25	0.06	598	42	Y	Y	161	0.8	201	675	675	203	305.0	0.66	0.51
310 L3 ConferenceRm_338	Conference	5	10	0.06	259	39	Y	-	66	0.8	82	200	200	60	125.0	0.66	0.51
314 L3 Corridor_30041	Corridor	0	0	0.06	1396	0	-	-	84	0.8	105	100	160	48	160.0	0.65	0.52
315 L3 Corridor_30050	Corridor	0	0	0.06	1753	0	-	-	105	0.8	132	125	200	60	200.0	0.66	0.51
316 L3 ElecRm_30065	MEP	5	0	0.06	124	0	-	-	7	0.8	9	25	25	8	15.0	0.62	0.55
317 L3 ElecRm_30068	MEP	5	0	0.06	103	0	-	-	6	0.8	8	25	25	8	15.0	0.52	0.65
344 L3 Janitor_30069	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	75	23	75.0	0.00	1.17
345 L3 MultipurposeRm_305	Conference	5	46	0.06	566	81	Y	Y	264	0.8	330	850	850	255	495.0	0.67	0.50
365 L3 VestMen_30028	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	135	41	135.0	0.00	1.17
366 L3 VestWomen_30026	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	135	41	135.0	0.00	1.17
368 L3 ConferenceRm_301_SW	Conference	5	15	0.06	370	41	Y	-	97	0.8	121	400	400	120	185.0	0.66	0.51
401 L4 ConferenceRm_401_1	Conference	5	26	0.06	572	45	Y	Y	164	0.8	205	1175	1175	353	355.0	0.58	0.59
402 L4 Bathroom	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	50	1080	324	1080.0	0.00	1.17
410 L4 ConferenceRm_401_2	Conference	5	26	0.06	570	46	Y	Y	164	0.8	205	625	625	188	310.0	0.66	0.51
411 L4 ConferenceRm_438	Conference	5	10	0.06	259	39	Y	-	66	0.8	82	200	200	60	125.0	0.66	0.51
414 L4 Corridor_40041	Corridor	0	0	0.06	1404	0	-	-	84	0.8	105	100	160	48	160.0	0.66	0.51
415 L4 Corridor_40050	Corridor	0	0	0.06	1599	0	-	-	96	0.8	120	175	180	54	180.0	0.67	0.50
416 L4 ElecRm_40065	MEP	5	0	0.06	124	0	-	-	7	0.8	9	25	25	8	15.0	0.62	0.55
417 L4 ElecRm_40068	MEP	5	0	0.06	103	0	-	-	6	0.8	8	25	25	8	15.0	0.52	0.65
444 L4 Janitor_40069	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	75	23	75.0	0.00	1.17
464 L4 VestMen_40028	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	135	41	135.0	0.00	1.17
465 L4 VestWomen_40026	Corridor	0	0	0	0	#DIV/0!	#DIV/0!	-	0	0.8	0	25	135	41	135.0	0.00	1.17

DCV Total 1509

20585

Step #:	min % peak	30%
5	D	0.9
6	Vou (cfm)	3138
7	Vps	18527
8	Xs	0.169
10	Ev	0.50
11	Vot	6281
	Zmax	0.67

Ds	Vdz-min > Vdz-min-uncorr	Vdz-des > Vdz-min	VAV
1.00 Y	Y	VAV 0.6	
1.00 Y	Y	VAV 0.5	
0.60 Y	Y	VAV 0.7	
0.54 Y	Y	VAV 0.6	
1.00 Y	Y	VAV 0.7	
1.00 Y	Y	VAV 0.6	
0.30 Y	Y	VAV 4.18 (1375/410) & 4.43 (1375/415)	
1.00 Y	Y	VAV 1.25	
0.60 Y	Y	VAV 1.26	
0.80 Y	Y	VAV 1.26	
1.00 Y	Y	VAV 1.26	
0.60 Y	Y	VAV 1.26	
0.68 Y	Y	VAV 1.18 (225/135) & 1.19 (225/135)	
0.67 Y	Y	VAV 1.19 (300/235)	
1.00 Y	Y	VAV 1.25	
0.44 Y	Y	VAV 1.41	
0.60 Y	Y	VAV 1.26	
0.30 Y	Y	VAV 1.14 (300/90) & 1.22 (300/90)	
0.31 Y	Y	VAV 1.21	
0.73 Y	Y	VAV 1.20	
0.40 Y	Y	VAV 1.26	
0.80 Y	Y	VAV 1.26	
0.80 Y	Y	VAV 1.26	
1.00 Y	Y	VAV 1.25	
1.00 Y	Y	VAV 1.25	
1.00 Y	Y	VAV 2.18	
0.49 Y	Y	VAV 2.1	
0.63 Y	Y	VAV 2.8	
1.00 Y	Y	VAV 2.15	
1.00 Y	Y	VAV 2.17	
0.60 Y	Y	VAV 2.15	
0.60 Y	Y	VAV 2.17	
1.00 Y	Y	VAV 2.18	
0.58 Y	Y	VAV 2.2	
1.00 Y	Y	VAV 2.18	
1.00 Y	Y	VAV 2.18	
0.30 Y	Y	VAV 4.16	
0.30 Y	Y	VAV 3.2	
1.00 Y	Y	VAV 3.18	
0.45 Y	Y	VAV 3.1	
0.63 Y	Y	VAV 3.8	
1.00 Y	Y	VAV 3.15	
1.00 Y	Y	VAV 3.17	
1.00 Y	Y	VAV 3.17	
0.46 Y	Y	VAV 3.1	
0.30 Y	Y	VAV 4.2	
1.00 Y	Y	VAV 4.19	
0.50 Y	Y	VAV 4.1	
0.63 Y	Y	VAV 4.8	
1.00 Y	Y	VAV 4.15	
1.00 Y	Y	VAV 4.18A	
0.60 Y	Y	VAV 4.15	
0.60 Y	Y	VAV 4.18A	
1.00 Y	Y	VAV 4.19	
1.00 Y	Y	VAV 4.19	
1.00 Y	Y	VAV 4.19	

flow rounded up to allow for Evz ~ 0.5

flow rounded up to allow for Evz ~ 0.5

flow rounded up to allow for Evz ~ 0.5

flow rounded up to allow for Evz ~ 0.5

80% of supply to 102 L1 Bathroom

flow rounded up to allow for Evz ~ 0.5

flow rounded up to allow for Evz ~ 0.5

janitor supply to adjacent corridor

20% of supply to 102 L1 Bathroom

20% of supply to 102 L1 Bathroom

80% of supply to 202 L2 Bathroom