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SPACE AIR-EXCHANGE PER HOUR CALCULATOR

**LONGFELLOW COMMUNITY, 259 BROADWAY, CAMBRIDGE,
MA**

9/8/2021

ROOM NAME/#	SERVED BY	CEILING HEIGHT (FT)	FLOOR AREA (FT ²)	VOLUME (FT ³)	TOTAL SUPPLY AIR (FT ³ /MIN)	VENTILATION AIRFLOW IN (FT ³ /MIN)	EXHAUST/ RETURN AIRFLOW OUT (FT ³ /MIN)	TOTAL AIR CHANGES PER HOUR (O.A. PLUS RECIRC. AIR)	AIR EXCHANGES PER HOUR (O.A. ONLY)	FILTER MERV RATING
001 K-5 Classroom	UV-4-1	12.5	898.7	11233.8	504	111	0 FNE	2.7	0.6	5
011A ASD Office	UV-8-1	7.8	72	558.0	209	36	27	22.5	2.9	5
007 Art Room	UV-1-2	12.5	712	8900.0	520	242	75	3.5	0.5	5
007A		1.0	105.4	105.4		NO TAB DATA		0.0	0.0	#N/A
006 Kindergarten	UV-8-1	12.8	950	12191.7	335	58		1.6	0.3	5
006T Toilet	EF	8.0	17.9	143.2			78	0.0	32.7	#N/A
Corr by 006	UV-8-1	9.7	170.1	1644.3	125	22		4.6	0.8	5
005 Kindergarten	UV-1-1	12.5	782.1	9776.3	602	270	70	3.7	0.4	5
005T Toilet	UV-1-1	8.0	16.5	132.0			104	0.0	47.3	5
004 Kindergarten	UV-8-1	12.8	917.6	11775.9	520	91	75	2.6	0.4	5
004T Toilet		8.0	22.4	179.2			51	0.0	17.1	#N/A
003 Kindergarten	UV-3-1	12.5	966.6	12082.5	971	399		4.8	2.0	5
003T Toilet	UV-3-1	8.0	15.3	122.4			84	0.0	41.2	5
011B Office	UV-8-1	8.2	66	539.0	103	18	5	11.5	0.6	5
018 Classroom	UV-6-1	12.7	609.7	7722.9	280	104	70	2.2	0.5	5
020 Classroom	UV-1-3	12.7	669.4	8479.1	598	311	77	4.2	0.5	5
014 Girls Room	EF	12.7	364.2	4613.2			206	0.0	2.7	#N/A
021 Custodian Office		12.7	210.7	2668.9	0 FNE	0 FNE	0 FNE	0.0	0.0	#N/A
021T Toilet	EF	12.7	36.5	462.3			43	0.0	5.6	#N/A
021C Corridor		9.7	??	??	0 FNE	0 FNE	0 FNE	0.0	0.0	#N/A
031 Co-Ed	UV-5-1	12.5	680.9	8511.3			0 FNE	0.0	0.0	5

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031A Office	UV-5-1	8.8	174.9	1545.0	861	481	624	33.4	18.7	5
031B Corridor	UV-5-1	12.4	??	??	615	344		0.0	0.0	5
033 Cafeteria		12.3	1458.5	17988.2	0 FNE	0 FNE	0 FNE	0.0	0.0	#N/A
Rm 027A		1.0	328.4	328.4		NO TAB DATA		0.0	0.0	#N/A
Rm 027B		1.0	237.7	237.7		NO TAB DATA		0.0	0.0	#N/A
Rm 025A		1.0	322.5	322.5		NO TAB DATA		0.0	0.0	#N/A
025B ASD	UV-9-1	12.7	300	3798.0	1309	351		20.7	5.5	5
025C ASD	UV-9-1	12.7	124.5	1576.2			958	0.0	36.5	5
027 Corridor	EF	12.7	85.6	1084.3			37	0.0	2.0	#N/A
Staff Toilet	EF	8.0	54.4	435.2			0 FNE	0.0	0.0	#N/A
Mens Toilet	EF	8.0	41.3	330.4			0 FNE	0.0	0.0	#N/A
024 Boys Toilet	EF	12.4	276.8	3436.9			0 FNE	0.0	0.0	#N/A
Rm 034		1.0	73.1	73.1		NO TAB DATA		0.0	0.0	#N/A
Rm 028		1.0	250.8	250.8		NO TAB DATA		0.0	0.0	#N/A
030 Kitchen		12.4	396.8	4920.3	0 FNE	0 FNE	693	0.0	8.5	#N/A
030T Kitchen Toilet	EF	8.0	22.2	177.6			0 FNE	0.0	0.0	#N/A
Afterschool st	AC-1	10.0	102.3	1023.0		NO TAB DATA		0.0	0.0	13
After school office	UV-8-2	12.7	305.5	3867.6	705	135		10.9	2.1	5
035A Preschool	UV-8-2	12.5	98.1	1226.3	18	3	0 FNE	0.9	0.2	5
035 Preschool	UV-8-2	12.7	964.1	12205.5	374	72	0 FNE	1.8	0.4	5
033 Storage	UV-8-2	12.3	114.1	1407.2			887	0.0	37.8	5
RM 035 B		1.0	36	36.0		NO TAB DATA		0.0	0.0	#N/A
Rm 035 st		1.0	8.25	8.3		NO TAB DATA		0.0	0.0	#N/A
036 Girls Room		8.0	102	816.0			0 FNE	0.0	0.0	#N/A
101 Waiting	UV-4-2	13.0	297.8	3871.4	312	95		4.8	1.5	5
103C Corridor	UV-4-2	10.0	??	??	84	25		0.0	0.0	5
103C Principal	UV-4-2	10.0	192.4	1924.0	182	55		5.7	1.7	5
103B Assist Princ	UV-4-2	10.0	118.99	1189.9	94	29		4.7	1.4	5
105 Conference Room	UV-4-2	9.7	384	3709.4	313	95	686	5.1	1.5	5

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Staff Toilet	EF	8.0	50.6	404.8			116	0.0	17.2	#N/A
107 Classroom	UV-1-4	11.0	660	7260.0	496	220	54	4.1	0.4	5
109 Classroom	UV-1-4	11.0	667.6	7343.6	600	266	114	4.9	0.9	5
113 Classroom	UV-2-1	11.3	678	7681.7	773	386	64	6.0	0.5	5
115 Classroom	UV-1-5	11.3	682.5	7732.7	538	227	61	4.2	0.5	5
117 Classroom	UV-1-6	11.3	657	7443.8	534	255	65	4.3	0.5	5
119B Nurse	UV-5-2	9.7	140	1352.4	185	107	0 FNE	8.2	4.8	5
119C ELS	UV-5-2	9.7	59	569.9	150	87		15.8	9.2	5
119D Guidance	UV-5-2	9.7	59	569.9	119	69		12.5	7.3	5
119 Nurse Waiting	UV-5-2	9.7	185	1787.1	307	178		10.3	6.0	5
119A Toilet	EF	8.0	??	??			0 FNE	0.0	0.0	#N/A
Nurse Corridor	UV-5-2	10.7	??	??	621	361		0.0	0.0	5
121 Classroom	UV-1-7	11.3	690	7817.7	619	224	67	4.8	0.5	5
123 Classroom	UV-1-8	11.3	680	7704.4	711	273	43	5.5	0.3	5
125 Classroom	UV-2-2	11.3	669	7579.8	754	333	32	6.0	0.3	5
Rm 128 stage		1.0	617	617.0		NO TAB DATA		0.0	0.0	#N/A
Rm 128 A stage ofice		1.0	132	132.0		NO TAB DATA		0.0	0.0	#N/A
Rm 129 A gym st		1.0	60	60.0		NO TAB DATA		0.0	0.0	#N/A
129 Gym		26.8	5400	144900	0 FNE	0 FNE	183	0.0	0.1	#N/A
Rm 131 lobby		1.0	344	344.0		NO TAB DATA		0.0	0.0	#N/A
Rm 130		1.0	458	458.0		NO TAB DATA		0.0	0.0	#N/A
124 Classroom	UV-1	10.0	653	6530.0	561	249	0	5.2	2.3	5
Rm 118	UV-6-1	10.0	626	6260.0	139	51	0	1.3	0.5	5
108 School Psych	UV-5-3	8.0	105	840.0	92	17	0 FNE	6.6	1.2	5
106 Special Ed	UV-5-3	10.0	500	5000.0	118	22	0 FNE	1.4	0.3	5
104 Library (UV-5-3)	UV-5-3	12.7	652.1	8255.6	634	117	0 FNE	4.6	0.9	5
104 Library (UV-5-4)	UV-5-4	12.7	1300	16510.0	365	236	0 FNE	1.3	0.9	5
Corridor	UV-5-4	10.8	??	??	350	226		0.0	0.0	5
102 Teachers Room	UV-5-4	10.0	221	2210.0	200	129		5.4	3.5	5

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112 Staff Toilet	EF	8.0	65.9	527.2			0 FNE	0.0	0.0	#N/A
116 Girls Room	EF	12.5	322.5	4031.3			0 FNE	0.0	0.0	#N/A
126 Boys Room	EF	12.5	230.2	2877.5			0 FNE	0.0	0.0	#N/A
1F Janitor's Closet	EF	10.2	??	??			0 FNE	0.0	0.0	#N/A
IT of ice		1.0	98	98.0		NO TAB DATA		0.0	0.0	#N/A
200s Staff Toilet	EF	8.0	44.6	356.8			0 FNE	0.0	0.0	#N/A
222 Classroom	UV-1	11.5	637	7325.5	575	255	0 FNE	4.7	2.1	5
223 Science	UV-6-2	11.5	917	10545.5	918	260	0 FNE	5.2	1.5	5
2F Hallway near 223	UV-6-2	10.7	??	??	413	117		0.0	0.0	5
221A Waiting	UV-6-2	11.5	213.65	2457.0	229	65	0 FNE	5.6	1.6	5
224 Boys Room	EF	11.5	391	4496.5			0 FNE	0.0	0.0	#N/A
215 Classroom	UV-1	11.5	415	4772.5			0 FNE	0.0	0.0	5
215A Office	UV-1	11.5	143	1644.5	0 FNE	0 FNE		0.0	0.0	5
216 Girls Room	EF	12.0	322.5	3870.0			366	0.0	5.7	#N/A
217A Corridor	UV-5	10.7	??	??	492		0 FNE	0.0	0.0	5
217B Office	UV-5	9.5	101.6	965.2			0 FNE	0.0	0.0	5
217C Office	UV-5	9.5	??	??	Room was locked			0.0	0.0	5
218 Classroom	UV-1	11.5	628	7222.0	0 FNE	0 FNE	0 FNE	0.0	0.0	5
219 Classroom	UV-1	11.5	670	7705.0	637	282	0 FNE	5.0	2.2	5
213 Classroom	UV-1	11.5	658	7567.0	678	300	0 FNE	5.4	2.4	5
212 Custodian	UV-1	11.5	66	759.0			0 FNE	0.0	0.0	5
211 Classroom	UV-2	11.5	668	7682.0	722	320	0 FNE	5.6	2.5	5
207A K-5 Sped	UV-1	11.5	175	2012.5	498	221		14.8	6.6	5
207 Classroom	UV-1	11.5	447	5140.5			0 FNE	0.0	0.0	5
207B Director	UV-1	11.5	137	1575.5			0 FNE	0.0	0.0	5
206A Spec Start	UV-1	11.5	356.4	4098.6	553	245		8.1	3.6	5
204A School Psych	UV-1	11.5	331	3806.5	509	225		8.0	3.6	5
204C Room	UV-1	11.5	112.3	1291.5			0 FNE	0.0	0.0	5
203 Grade 3-4	UV-1	11.5	658	7567.0	515	228	0 FNE	4.1	1.8	5

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205 Grade 3-4	UV-1	11.5	650	7475.0	598	265	0 FNE	4.8	2.1	5
202B K-5 OT	UV-1	11.5	88	1012.0	634	281		37.6	16.7	5
202 K-5 OT/PT	UV-1	11.5	334.6	3847.9			0 FNE	0.0	0.0	5
201A Specialist	UV-2	11.5	157.6	1812.4	695	308		23.0	10.2	5
201 Specialist	UV-2	11.5	468	5382.0			0 FNE	0.0	0.0	5
Hallway Ground floor	UV-1	1.0	5402	5402.0		NO TAB DATA		0.0	0.0	5
Hallway 1st floor	UV-1	1.0	3641	3641.0		NO TAB DATA		0.0	0.0	5

FNE = "Fan not energized" per Final TAB Report

Avg	3.4	3.4
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