

January 30, 2023

Mr. Nicholas Crupi, CEFM  
Director, Buildings and Grounds  
Scotch Plains - Fanwood Public Schools  
512 Cedar Street  
Scotch Plains, NJ 07076

Dear Mr. Crupi,

This report outlines findings from [ESMCorp's](#) January 18<sup>th</sup> and 19<sup>th</sup>, 2023 Indoor Air Quality monitoring at each of the 8 Scotch Plains-Fanwood Schools. This assessment was conducted as part of the Scotch Plains – Fanwood Schools routine preventative indoor air quality program to ensure acceptable air quality for students, staff and visitors.

The purposes of this inspection were the following:

- Determine if air quality parameters including fresh air supply, volatile organic compounds, carbon monoxide, temperature and humidity were within expected ranges.
- Determine if the school is in general compliance with current guidelines by the State of New Jersey and the CDC with respect to ventilation in classrooms for reducing COVID-19 transmission risk.

The inspections, data analysis and report were conducted Mr. Richard A. Lynch, MBA, CIH, CIEC and Dr. Richard M. Lynch, Ph.D., CIH of Environmental Safety Management Corporation.

## Executive Summary

The January 2023 routine Indoor Air Quality Assessment of the Scotch Plains – Fanwood schools revealed that fresh air supply was within normal ranges in 72% of the 263 rooms inspected in accordance with PEOSHA, CDC and NJ Department of Education guidelines for COVID-19 transmission risk reduction in each of the 8 schools inspected. There were no musty odors, no widespread visible water damage, and no visible mold contamination observed. There were no elevations in carbon monoxide. Temperature and relative humidity were with normal ranges given outdoor conditions at each of the schools. Particular attention should be provided for the School One and Brunner classroom areas serviced by the newly installed Daiken Rooftop air handlers. Fresh air supply in these areas was significantly lower than measured during our previous inspections. Settings including fresh air damper position and fan speed controls for these areas should be reviewed with the HVAC contractor/controls company to ensure adequate outdoor air delivery during occupancy independent of thermostat settings and room temperatures.

## **I. Evaluation Criteria**

According to the CDC “regardless of the level of community transmission, it is critical that schools use and layer prevention strategies, following district policies and procedures for COVID-19 transmission

risk reduction. Recent [State of NJ Department of Health updated guidance for K-12 Schools \(October 7, 2022\)](#), continue to recommend layered strategies for prevention of COVID-19 transmission in schools. The focus has shifted from an individual case-based response strategy to a transmission mitigation strategy, where the risk of the whole school community, including the risk of interruptions to learning, is considered.

#### Heating Ventilation, Air Conditioning Systems

The NJDOH and CDC recommended that schools “Improve [ventilation](#) to the extent possible to increase circulation of outdoor air, increase the delivery of clean air, and dilute potential contaminants. This can be achieved through several actions.

- Bring in as much outdoor air as possible.
- Ensure Heating, Ventilation, and Air Conditioning (HVAC) settings are maximizing ventilation.
- Filter and/or clean the air in the school by improving the [level of filtration](#) as much as possible.
- Use exhaust fans in restrooms and kitchens.

For mechanically ventilated schools, The [NJ PEOSHA Indoor Air Quality Standard](#) requires that HVAC systems be inspected and maintained in accordance with manufacturer specifications and that damaged components be repaired. According to the standard, when indoor air levels of carbon dioxide exceed 1,000 parts per million the employer inspect the system to ensure that it is operating as it should NJAC 12:100-13.3. The standard also requires that when indoor air temperatures cannot be maintained between 68-79°F during the heating season, that the HVAC system be inspected. This is based upon the ASHRAE 55 standard which recommends that air temperatures be maintained between 68-72°F during the heating season, 74-78°F during the cooling season and 68-79°F during the transition seasons; all ideally at 30-60% relative humidity.

In non-mechanically ventilated buildings the PEOSHA standard requires that the employer “Assure that buildings without mechanical ventilation are maintained so that windows, doors, vents, stacks, and other portals designed or used for natural ventilation are in operable condition (NJAC 12: 100-13.3-6). In naturally ventilated classrooms (rooms with no mechanical ventilation systems such as unit ventilators, or rooftop air handlers), it is recommended that windows be opened to the maximum extent possible given temperature and security concerns. (Villers et al “[SARS-CoV-2 Aerosol Transmission in Schools: The Effectiveness of Different Interventions](#)”, and Lynch “[Review 2 SARS-CoVo2 Aerosol Transmission in Schools: The effectiveness of Different Interventions](#)” Rapid Reviews COVID-19 MIT Press September 19, 2021.

## **II. Methods**

Based upon the above, the following methods were observed:

1. A visual inspection of a representative sample of classrooms within each building was conducted for indications of air quality concerns including water damage, musty odors, air flow and general cleanliness.
2. Carbon Dioxide (CO<sub>2</sub>) was measured as an indicator of fresh air supply in each of the representative areas evaluated at the center of the room, and where accessible, at the discharge of unit ventilators, using a TSI Q-Trak 7575 IAQ Monitor.
3. Volatile Organic Compounds (VOC's), Carbon monoxide, temperature and relative Humidity were also measured.

### III. Findings and Results

#### General Observations

- Approximately 263 classrooms throughout the district were inspected and monitored during normal occupancy by students and staff.
- Classrooms were occupied by an average 9 to 14 students at the time of assessment.
- Window position varied between classrooms and between buildings. On average 0 of 2-6 windows were open in each classroom at the time of inspection.
- There were no indications of unusual accumulations of dust or debris in any areas.
- There were no mold-like or musty odors present, and no evidence of unusual mold growth in the areas inspected.
- Unit ventilators in over 97% of classrooms throughout the district were operating at the time of inspection.

#### Air Monitoring Findings

- Outdoor air was measured to contain approximately 387 to 438 parts per million carbon dioxide with temperature at 48 to 59°F. Relative humidity ranged between 30 to 43% over the inspection period.
- The average carbon dioxide level in all classrooms monitored was 880 parts per million; lower than to the PEOSHA guideline of 1000 ppm and the ASHRAE guideline of 700 ppm above outdoor levels.
- There were no elevations in carbon monoxide detected in any of the classrooms monitored.
- Temperature and relative humidity were within the PEOSH recommended range in most areas tested, averaging 72@ 31% RH, and considered normal.
- Twenty Eight percent (28%) of classrooms contained elevated carbon dioxide levels exceeding 1,000 parts per million, suggesting a need to open windows whenever feasible, and to inspect unit ventilator fan speed and/or outdoor air damper position as described in the PEOSHA indoor air quality standard.

A summary of inspection findings and air quality results is displayed in Table #1 below.

Table #1 – Q4 Air Quality Summary June 2022 - Scotch Plains Fanwood Schools

	Total Rooms inspected	Average CO2 levels (center of room)	Average Temperature (°F)	Average Relative Humidity (%)	Average number of windows open	Average number of windows present	Average number of students present
<b>Scotch Plains - Fanwood High School</b>	68	796	74	28	0	4	13
<b>Evergreen Elementary</b>	27	695	72	28	1	4	11
<b>Coles Elementary</b>	25	899	69	36	0	4	9
<b>Terrill Middle School</b>	24	1040	75	33	1	6	14
<b>McGinn Elementary</b>	26	855	72	33	0	3	9
<b>Malcolm E. Nettingham Middle School</b>	45	905	72	30	0	4	11
<b>School One Elementary</b>	26	948	71	30	0	2	5
<b>Brunner Elementary</b>	22	1066	71	32	0	5	14
Total	263	-	-	-	-	-	-
Average	33	880	72	31	0	4	11

Detailed classroom findings and recommendations are contained on Table #2 at the end of this report.

#### IV. Conclusions and Recommendations

The January 2023 routine Indoor Air Quality Assessment of the Scotch Plains – Fanwood schools revealed that fresh air supply was within normal ranges in 72% of the 263 rooms inspected in accordance with PEOSHA, CDC and NJ Department of Education guidelines for COVID-19 transmission risk reduction in each of the 8 schools inspected. There were no musty odors, no widespread visible water damage, and no visible mold contamination observed. There were no elevations in carbon monoxide. Temperature and relative humidity were with normal ranges given outdoor conditions at each of the schools. Particular attention should be provided for the School One and Brunner classroom areas serviced by the newly installed Daiken Rooftop air handlers. Fresh air supply in these areas was significantly lower than measured during our previous inspections. Settings including fresh air damper position and fan speed controls for these areas should be reviewed with the HVAC contractor/controls company to ensure adequate outdoor air delivery during occupancy independent of thermostat settings and room temperatures.

##### Recommendations

1. Unit ventilators in particular classrooms as shown in school-specific Tables at the end of this report should be inspected for airflow rates and/or fresh air damper position.
2. Contact the HVAC contractor or controls company to inspect newly installed Daiken Rooftop units at School One and Brunner to ensure 15 CFM outdoor air delivery per person during occupancy independent of thermostat settings and classroom temperature.
3. Teachers should be encouraged to open as many windows as is feasible given outdoor temperature and humidity conditions, keep unit ventilators running, and operate supplemental air filters in classrooms, nurse offices and trailers where provided by the district.

Thank you for the opportunity to assist you with the evaluation. Our next routine air quality monitoring will be scheduled for September 2022. Please contact me with any questions at (856)764-3557.

Sincerely,  
*Richard A. Lynch*  
Richard A. Lynch, MBA, CIH, CIEC  
Certified Industrial Hygienist  
NJ Licensed Indoor Environmental Consultant  
[www.esmcorp.com](http://www.esmcorp.com)

Reviewed and Authorized:  
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President, ESMCorp  
[rlynch@esmcorp.com](mailto:rlynch@esmcorp.com)

School Name **Scotch Plains - Fanwood High School**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/18/2023**



21 Scott Street  
 Fanwood, NJ 07025  
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Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	438	0	59	31	0		
279	no	no	no	yes	0	25	1	8	464	0	75	25	0	450	
268	no	no	no	yes	3	25	2	8	509	0	73	22	0	445	
271	no	no	no	yes	0	25	0	11	510	0	74	23	0	419	
122	no	no	no	yes	1	24	0	0	540	0	72	27	0	roof	
164	no	no	no	yes	5	21	1	11	553	0	76	25	0	443	check heat valve
274	no	no	no	yes	1	24	3	8	559	0	75	24	0	477	
178	no	no	no	yes	17	26	2	8	565	0	75	26	0	491	
173	no	no	no	yes	0	30	0	4	579	0	76	32	0	504	check heat valve
210	no	no	no	yes	0	24	1	2	579	0	71	25	0	roof	
176	no	no	no	yes	10	25	1	8	584	0	74	29	0	502	
215	no	no	no	yes	0	24	0	2	589	0	71	26	0	roof	
251	no	no	no	yes	22	24	1	4	589	0	72	22	0	483	
101	no	no	no	yes	0	24	0	0	600	0	69	32	0	roof	
153	no	no	no	yes	0	15	0	3	603	0	75	27	0	489	
media center	no	no	no	yes	15	100	0	0	606	0	68	35		roof	
258	no	no	no	yes	15	24	0	4	641	0	74	27	0	624	check damper position
151	no	no	no	no	24	25	4	16	652	0	75	28	0	-	reactivate unit ventilator
261	no	no	no	yes	20	24	0	9	659	0	74	30	0	554	
211	no	no	no	yes	1	22	0	0	663	0	71	27	0	roof	
233	no	no	no	yes	3	25	0	0	665	0	73	25	0	roof	
102	no	no	no	yes	5	14	0	0	665	0	70	31	0	roof	
150	no	no	no	yes	20	24	2	8	665	0	75	23	0	541	
242	no	no	no	yes	0	24	0	0	679	0	73	29	0	roof	
154	no	no	no	yes	17	25	1	8	692	0	73	28	0	550	
nurse	no	no	no	yes	3	5	0	2	694	0	76	25	0	roof	
252	no	no	no	yes	22	26	1	8	696	0	74	26	0	627	check damper position

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Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	438	0	59	31	0		
259	no	no	no	yes	20	28	0	8	698	0	74	26	0	503	
236	no	no	no	yes	4	10	0	0	715	0	73	27	0	roof	
172	no	no	no	yes	16	30	1	4	730	0	73	30	0	535	
137	no	no	no	yes	1	20	0	2	736	0	70	30	0	roof	
235	no	no	no	yes	1	25	0	0	739	0	73	27	0	roof	
212	no	no	no	yes	17	20	0	2	745	0	71	28	0	roof	
158	no	no	no	yes	12	16	0	8	747	0	75	27	0	667	
139	no	no	no	yes	19	24	0	2	753	0	70	31	0	roof	
267	no	no	no	yes	11	25	0	8	759	0	73	28	0	549	
275	no	no	no	yes	18	24	1	12	789	0	74	27	0	520	
202	no	no	no	yes	21	21	0	2	791	0	73	28	0	roof	
222	no	no	no	yes	2	20	0	2	810	0	73	27	0	roof	
276	no	no	no	yes	20	24	2	12	816	0	78	23	0	610	
131	no	no	no	yes	18	24	0	0	828	0	74	30	0	roof	
128	no	no	no	yes	19	24	0	0	832	0	73	31	0	roof	
111	no	no	no	yes	20	24	0	0	843	0	70	32	0	roof	
165	no	no	no	yes	22	24	0	11	843	0	73	30	0	651	
135	no	no	no	yes	14	24	0	0	845	0	72	31	0	roof	
171	no	no	no	yes	19	23	0	8	849	0	72	31	0	575	
129	no	no	no	yes	24	24	0	0	854	0	73	32	0	roof	
247	no	no	no	yes	20	24	0	0	858	0	74	29	0	roof	
204	no	no	no	yes	19	22	0	0	864	0	73	29	0	roof	
266	no	no	no	yes	1	26	0	8	913	0	74	26	0	737	open windows
133	no	no	no	yes	24	24	0	0	922	0	73	31	0	roof	
223	no	no	no	yes	20	25	0	0	930	0	73	29	0	roof	
136	no	no	no	yes	20	24	0	0	930	0	74	30	0	roof	

School Name **Scotch Plains - Fanwood High School**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/18/2023**



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Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	438	0	59	31	0		
141	no	no	no	yes	24	24	0	1	955	0	72	31	0	roof	open windows
177	no	no	no	yes	17	25	0	8	967	0	75	28	0	809	open windows
256	no	no	no	yes	2	24	0	4	967	0	76	27	0	775	open windows
207	no	no	no	yes	14	22	0	0	976	0	73	30	0	roof	
237	no	no	no	yes	22	24	0	0	984	0	74	31	0	roof	
254	no	no	no	yes	19	24	0	8	1005	0	78	26	0	789	open windows
231	no	no	no	yes	21	25	0	0	1011	0	73	29	0	roof	inspect rooftop unit damper position
281	no	no	no	yes	19	25	1	8	1021	0	75	33	0	712	
175	no	no	no	no	16	24	0	4	1041	0	78	28	0	-	reactivate unit ventilator, open windows
240	no	no	no	yes	24	24	0	0	1045	0	73	32	0	roof	inspect rooftop unit damper position
282	no	no	no	yes	24	25	0	8	1051	0	71	33	0	533	open windows
152	no	no	no	yes	20	25	0	16	1106	0	75	30	0	743	open windows
245	no	no	no	yes	21	25	0	0	1151	0	74	31	0	roof	inspect rooftop unit damper position
277	no	no	no	yes	21	24	0	4	1180	0	75	32	0	965	open windows
278	no	no	no	yes	20	24	0	4	1250	0	77	36	0	732	check heat valve, open windows
157	no	no	no	no	15	22	0	8	1478	0	77	30	0	-	reactivate unit ventilator, open windows
Average					13	24	0	4	796	0	74	28	0	594	

School Name **Evergreen Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/18/2023**



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Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	403	0	55	32	0	-	
104	no	no	no	yes	1	24	1	4	457	0	72	25	0	390	
108	no	no	no	yes	12	16	3	4	506	0	71	27	0	440	
124	no	no	no	yes	0	15	0	6	528	0	69	31	0	461	
141	no	no	no	no	7	12	2	6	558	0	69	33	0	-	reactivate unit ventilator
128	no	no	no	yes	3	24	0	6	558	0	73	28	0	471	
114	no	no	no	yes	1	24	0	2	579	0	72	27	0	roof	
143	no	no	no	yes	4	4	1	4	581	0	68	34	0	roof	
nurse	no	no	no	yes	1	4	0	2	591	0	72	32	0	587	inspect unit ventilator for damper position and fan speed
129	no	no	no	yes	24	24	1	6	602	0	73	26	0	512	
112	no	no	no	yes	5	16	0	2	631	0	70	28	0	roof	
106	no	no	no	yes	18	25	1	4	637	0	73	25	0	462	
118	no	no	no	yes	8	22	2	2	656	0	75	21	0	410	
134	no	no	no	yes	19	25	4	4	665	0	73	28	0	628	
117	no	no	no	yes	5	25	0	4	667	0	70	30	0	roof	
110	no	no	no	yes	16	18	0	4	685	0	70	29	0	538	
119	no	no	no	yes	16	17	2	4	701	0	75	21	0	506	
117	no	no	no	yes	1	25	0	2	704	0	71	32	0	roof	
142	no	no	no	yes	0	4	0	2	731	0	69	31	0	roof	
120	no	no	no	yes	11	25	0	5	742	0	72	32	0	653	
131	no	no	no	yes	19	26	1	4	770	0	73	24	0	460	
135	no	no	no	yes	10	24	1	4	772	0	74	27	0	715	inspect unit ventilator for damper position and fan speed
media center	no	no	no	yes	20	50	0	8	780	0	74	27	0	672	
107	no	no	no	yes	20	20	2	4	850	0	76	26	0	536	
130	no	no	no	yes	22	23	0	4	858	0	73	30	0	652	open windows
123	no	no	no	yes	20	20	1	4	867	0	75	27	0	735	check damper position
115	no	no	no	yes	20	24	0	2	920	0	72	29	0	roof	open windows



School Name **Evergreen Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/18/2023**



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Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	403	0	55	32	0	-	
127	no	no	no	yes	25	26	0	4	1161	0	73	35	0	785	open windows
				Average	11	21	1	4	695	0	72	28	0	559	

School Name **Coles Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/19/2023**



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Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	430	0	48	42	0	-	
149	no	no	no	yes	0	25	2	4	651	0	66	37	0	597	
128	no	no	no	yes	0	7	0	2	671	0	68	32	0	roof	
118	no	no	no	yes	18	24	4	4	690	0	72	31	0	605	
media center	no	no	no	yes	1	50	0	4	705	0	69	32	0	roof	
130	no	no	no	yes	5	10	0	2	705	0	69	33	0	roof	
131	no	no	no	yes	2	10	0	2	705	0	69	32	0	roof	
136	no	no	no	yes	1	24	0	8	735	0	69	34	0	537	
145	no	no	no	no	1	20	1	4	771	0	68	36	0	-	reactivate unit ventilator
119	no	no	no	yes	1	20	1	8	780	0	73	31	0	589	
121	no	no	no	yes	12	23	0	4	791	0	71	31	0	582	
113	no	no	no	yes	19	20	1	8	797	0	71	34	0	628	
148	no	no	no	yes	1	25	0	4	803	0	67	38	0	760	inspect unit ventilator for damper position and fan speed
129	no	no	no	yes	18	21	0	4	821	0	68	33	0	roof	
117	no	no	no	yes	19	25	2	4	848	0	73	32	0	692	
144	no	no	no	yes	1	21	0	4	923	0	68	39	0	823	open windows
133	no	no	no	yes	5	12	0	2	950	0	69	33	0	roof	open windows
nurse	no	no	no	yes	2	4	0	1	951	0	68	47	0	808	open windows
137	no	no	no	yes	18	24	0	4	971	0	69	38	0	808	open windows
107	no	no	no	yes	19	24	0	3	976	0	69	39	0	678	open windows
134	no	no	no	yes	0	24	0	4	1024	0	70	38	0	850	open windows, inspect unit ventilator for damper position and fan speed
110	no	no	no	yes	22	24	0	4	1122	0	70	39	0	963	open windows, inspect unit ventilator for damper position and fan speed
142	no	no	no	yes	20	21	1	8	1146	0	67	38	0	995	open windows, inspect unit ventilator for damper position and fan speed
139	no	no	no	yes	20	24	0	4	1195	0	70	39	0	758	open windows, inspect unit ventilator for damper position and fan speed
146	no	no	no	no	1	24	0	4	1356	0	71	38	0	-	open windows, reactivate unit ventilator
115	no	no	no	yes	19	24	0	8	1395	0	73	36	0	1123	open windows, inspect unit ventilator for damper position and fan speed
Average					9	21	0	4	899	0	69	36	0	753	-

School Name **Terrill Middle School**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/19/2023**



21 SCOTT STREET  
 RIVINGTON, NJ 08075  
 Tel: (908) 794-0557  
 Fax: (908) 794-0558  
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Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	419	0	49	43	0	-	
25	no	no	no	yes	0	25	0	7	642	0	72	31	0	595	
15	no	no	no	yes	5	24	0	5	779	0	73	29	0	640	
8	no	no	no	yes	1	24	0	12	789	0	75	31	0	700	
33	no	no	no	yes	17	24	0	9	865	0	75	28	0	728	open windows
2	no	no	no	yes	0	24	0	7	885	0	70	39	0	717	open windows
19	no	no	no	yes	20	24	0	4	888	0	74	34	0	618	open windows
39	no	no	no	yes	7	27	3	4	905	0	76	21	0	888	
3	no	no	no	yes	3	24	0	7	915	0	71	38	0	775	open windows
1	no	no	no	yes	1	24	0	7	918	0	68	50	0	735	open windows
13	no	no	no	yes	23	26	4	5	925	0	75	33	0	792	
22	no	no	no	yes	23	24	0	4	931	0	76	29	0	645	open windows
32	no	no	no	yes	6	26	4	7	949	0	76	30	0	775	
7	no	no	no	yes	19	24	0	10	1035	0	72	35	0	772	open windows
5	no	no	no	yes	9	25	0	7	1085	0	75	35	0	825	open windows
12	no	no	no	yes	22	24	1	7	1089	0	73	35	0	825	inspect unit ventilator for damper position and fan speed
21	no	no	no	yes	22	24	2	4	1117	0	78	30	0	980	inspect unit ventilator for damper position and fan speed
6	no	no	no	yes	22	24	0	7	1140	0	77	31	0	810	open windows, inspect unit ventilator for damper position and fan speed
24	no	no	no	yes	13	26	2	6	1193	0	74	35	0	930	inspect unit ventilator for damper position and fan speed
14	no	no	no	yes	19	24	0	7	1195	0	76	33	0	935	open windows, inspect unit ventilator for damper position and fan speed
18	no	no	no	yes	18	20	1	4	1200	0	77	29	0	774	inspect unit ventilator for damper position and fan speed
35	no	no	no	yes	24	26	2	4	1330	0	77	32	0	1020	inspect unit ventilator for damper position and fan speed
29	no	no	no	yes	20	26	2	7	1345	0	76	31	0	1041	inspect unit ventilator for damper position and fan speed
38	no	no	no	yes	19	25	1	4	1388	0	79	28	0	1147	inspect unit ventilator for damper position and fan speed
28	no	no	no	yes	22	25	0	7	1441	0	73	35	0	1072	open windows, inspect unit ventilator for damper position and fan speed
				Average	14	25	1	6	1040	0	75	33	0	822	-

School Name **McGinn Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/19/2023**



21 SOUTH STREET  
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Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	419	0	49	43	0	-	
108	no	no	no	yes	0	25	0	4	532	0	71	33	0	roof	
107	no	no	no	yes	1	25	0	3	608	0	70	34	0	roof	
118	no	no	no	yes	0	24	0	4	630	0	72	30	0	529	
104	no	no	no	yes	0	26	0	3	668	0	68	36	0	592	
137	no	no	no	yes	0	24	1	4	687	0	74	29	0	565	
151	no	no	no	yes	0	25	0	4	695	0	69	33	0	roof	
106	no	no	no	yes	3	15	0	3	718	0	70	37	0	roof	
103	no	no	no	yes	1	26	0	3	730	0	67	41	0	633	
120	no	no	no	yes	21	25	0	4	768	0	71	33	0	575	
116	no	no	no	yes	1	25	0	4	785	0	74	31	0	668	
145	no	no	no	yes	0	4	0	2	835	0	73	32	0	roof	
149	no	no	no	yes	0	25	1	2	852	0	71	35	0	roof	
130	no	no	no	yes	19	25	2	2	856	0	72	33	0	612	
media center	no	no	no	yes	1	50	0	2	875	0	70	30	0	roof	
124	no	no	no	yes	21	25	0	4	886	0	75	31	0	659	open windows
133	no	no	no	yes	21	24	2	4	899	0	78	31	0	637	
150	no	no	no	yes	0	25	0	2	900	0	69	35	0	roof	open windows
122	no	no	no	yes	22	25	0	4	932	0	73	35	0	762	open windows
134	no	no	no	yes	1	24	0	4	936	0	73	32	0	680	open windows
129	no	no	no	yes	6	24	0	4	967	0	74	31	0	794	open windows
117	no	no	no	yes	19	25	0	3	995	0	73	35	0	717	open windows
121	no	no	no	yes	20	25	0	4	995	0	74	32	0	872	open windows
131	no	no	no	yes	23	25	3	4	1070	0	75	34	0	665	inspect unit ventilator for damper position and fan speed
123	no	no	no	yes	22	26	0	4	1097	0	75	31	0	674	open windows, inspect unit ventilator for damper position and fan speed
119	no	no	no	yes	20	25	0	4	1129	0	72	34	0	1050	open windows, inspect unit ventilator for damper position and fan speed
135	no	no	no	yes	16	22	0	4	1185	0	76	30	0	988	open windows, inspect unit ventilator for damper position and fan speed
Average					9	25	0	3	855	0	72	33	0	704	

School Name **Malcolm E. Nettingham Middle School**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/18/2023**  
 Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**



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Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	435	0	53	41		-	
102	no	no	no	yes	0	40	0	8	476	0	71	27	0	480	
301	no	no	no	yes	1	16	0	6	518	0	71	25	0	475	
215	no	no	no	yes	0	4	0	2	576	0	73	24	0	400	
211	no	no	no	yes	4	24	0	6	578	25	74	25	0	425	
313	no	no	no	yes	0	20	0	4	580	0	70	29	0	480	
119d	no	no	no	yes	0	25	0	1	591	0	70	29	0	roof	
117	no	no	no	yes	5	24	0	4	607	0	70	30	0	484	
305	no	no	no	yes	1	22	0	4	615	0	73	25	0	470	
103	no	no	no	yes	1	24	0	4	622	28	73	27	0	roof	
316	no	no	no	yes	1	24	0	6	657	0	75	25	0	450	
201	no	no	no	yes	19	24	0	8	676	0	71	30	0	625	center unit ventilator not running 1 of 3
318	no	no	no	yes	1	24	2	6	692	0	73	28	0	545	
104	no	no	no	yes	12	24	0	4	725	0	73	31	0	615	
319	no	no	no	yes	1	24	1	6	727	0	74	26	0	435	
302	no	no	no	yes	6	22	0	5	739	0	73	28	0	600	
303	no	no	no	yes	8	24	2	5	745	0	73	27	517		
202	no	no	no	yes	17	26	1	5	769	0	72	32	0	512	
207	no	no	no	yes	16	24	2	4	771	25	75	24	0	480	
114	no	no	no	yes	18	24	2	4	772	0	73	31	0	620	
315	no	no	no	yes	8	8	0	2	772	0	68	27	0	560	
119b	no	no	no	yes	19	25	0	0	795	0	72	32	0	roof	
nurse	no	no	no	yes	2	4	0	0	805	0	69	32	0	roof	
207	no	no	no	yes	1	24	0	4	848	0	73	29	0	551	
219	no	no	no	yes	21	24	0	6	850	0	76	27	0	590	
213	no	no	no	yes	12	24	0	6	870	0	73	30	0	612	open windows
203	no	no	no	yes	21	24	0	6	895	0	74	29	0	522	open windows
312	no	no	no	yes	20	40	0	6	934	0	74	27	0	583	open windows

School Name **Malcolm E. Nettingham Middle School**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/18/2023**



21 SCOTT STREET  
 RIVERVIEW, NJ 08075  
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Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	435	0	53	41		-	
108	no	no	no	yes	16	20	0	2	936	0	73	32	0	697	open windows
113	no	no	no	yes	18	24	0	5	937	0	74	28	0	600	open windows
106	no	no	no	yes	17	22	0	3	948	0	72	32	0	roof	open windows
306	no	no	no	yes	20	26	2	4	975	0	73	32	0	621	
220	no	no	no	yes	20	20	0	7	978	0	75	30	0	760	open windows
309	no	no	no	yes	0	24	0	4	1055	0	72	32	0	827	open windows
101	no	no	no	yes	32	50	0	0	1095	0	71	32	0	roof	inspect rooftop unit damper position and fan speed
206	no	no	no	yes	19	22	0	4	1134	0	72	32	0	715	open windows
307	no	no	no	yes	1	24	0	4	1147	0	75	30	0	720	open windows
107	no	no	no	yes	22	22	0	3	1156	0	72	33	0	942	open windows
311	no	no	no	yes	0	24	0	4	1156	0	73	32	0	703	open windows, inspect unit ventilator for damper position and fan speed
110	no	no	no	yes	25	28	3	4	1167	0	71	41	0	901	open windows, inspect unit ventilator for damper position and fan speed
116	no	no	no	yes	21	26	0	5	1180	0	72	37	0	880	open windows, inspect unit ventilator for damper position and fan speed
216	no	no	no	yes	22	24	0	6	1256	0	76	34	0	881	open windows, inspect unit ventilator for damper position and fan speed
310	no	no	no	yes	0	10	0	4	1256	0	74	32	0	1240	open windows, inspect unit ventilator for damper position and fan speed
120	no	no	no	yes	10	12	0	1	1289	0	70	36	0	roof	open windows, inspect rooftop unit damper position and fan speed
119f	no	no	no	yes	20	25	1	1	1850	0	70	38	0	roof	
119e	no	no	no	yes	21	25	0	1	2027	0	70	41	0	roof	open windows, inspect rooftop unit damper position and fan speed
Average					11	23	0	4	905	2	72	30	11	629	

School Name **School One Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/18/2023**



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Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	387	0	54	40		-	
203	no	no	no	yes	0	24	0	2	446	0	71	25	0	roof	
210	no	no	no	yes	0	24	0	2	521	0	72	27	0	roof	
204	no	no	no	yes	4	24	0	2	530	0	71	26	0	roof	
206	no	no	no	yes	1	24	0	2	540	0	72	27	0	roof	
213	no	no	no	yes	0	24	1	2	549	0	71	27	0	roof	
205	no	no	no	yes	0	24	0	2	550	0	71	27	0	roof	
211	no	no	no	yes	1	21	1	2	555	0	71	26	0	roof	
202	no	no	no	yes	1	10	0	2	571	0	72	26	0	roof	
209	no	no	no	yes	0	25	1	2	600	0	71	27	0	roof	
131 T	no	no	no	yes	0	24	1	4	623	0	71	29	0	582	
207	no	no	no	yes	3	4	0	1	625	0	71	27	0	roof	
130T	no	no	no	yes	1	24	0	4	780	0	72	27	0	452	
201	no	no	no	yes	0	24	1	2	811	0	72	28	0	roof	
107	no	no	no	yes	0	6	0	1	995	0	70	30	0	roof	open windows, inspect rooftop unit damper position and fan speed
111	no	no	no	yes	2	24	0	3	1105	0	71	32	0	roof	open windows, inspect rooftop unit damper position and fan speed
102	no	no	no	yes	1	13	0	2	1178	0	69	34	1	roof	open windows, inspect rooftop unit damper position and fan speed
113	no	no	no	yes	0	4	0	0	1184	0	70	31	1	roof	inspect rooftop unit damper position and fan speed
115	no	no	no	yes	1	4	0	0	1200	0	71	30	0	roof	inspect rooftop unit damper position and fan speed
105	no	no	no	yes	15	24	2	2	1250	0	71	33	0	roof	inspect rooftop unit damper position and fan speed
nurse	no	no	no	yes	2	6	0	0	1308	0	70	40	0	roof	inspect rooftop unit damper position and fan speed
109	no	no	no	yes	15	24	0	2	1319	0	71	32	0	roof	open windows, inspect rooftop unit damper position and fan speed
108	no	no	no	yes	17	24	0	3	1350	0	70	33	0	roof	open windows, inspect rooftop unit damper position and fan speed
106	no	no	no	yes	15	24	0	2	1460	0	72	34	0	roof	open windows, inspect rooftop unit damper position and fan speed
104	no	no	no	yes	16	24	0	2	1482	0	70	34	0	roof	open windows, inspect rooftop unit damper position and fan speed
101	no	no	no	yes	19	24	0	2	1540	0	68	39	0	roof	open windows, inspect rooftop unit damper position and fan speed
103	no	no	no	yes	18	24	0	2	1585	0	70	34	0	roof	open windows, inspect rooftop unit damper position and fan speed

School Name **School One Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/18/2023**



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Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	387	0	54	40		-	
203	no	no	no	yes	0	24	0	2	446	0	71	25	0	roof	
210	no	no	no	yes	0	24	0	2	521	0	72	27	0	roof	
204	no	no	no	yes	4	24	0	2	530	0	71	26	0	roof	
206	no	no	no	yes	1	24	0	2	540	0	72	27	0	roof	
213	no	no	no	yes	0	24	1	2	549	0	71	27	0	roof	
205	no	no	no	yes	0	24	0	2	550	0	71	27	0	roof	
211	no	no	no	yes	1	21	1	2	555	0	71	26	0	roof	
202	no	no	no	yes	1	10	0	2	571	0	72	26	0	roof	
209	no	no	no	yes	0	25	1	2	600	0	71	27	0	roof	
131 T	no	no	no	yes	0	24	1	4	623	0	71	29	0	582	
207	no	no	no	yes	3	4	0	1	625	0	71	27	0	roof	
130T	no	no	no	yes	1	24	0	4	780	0	72	27	0	452	
201	no	no	no	yes	0	24	1	2	811	0	72	28	0	roof	
107	no	no	no	yes	0	6	0	1	995	0	70	30	0	roof	open windows, inspect rooftop unit damper position and fan speed
111	no	no	no	yes	2	24	0	3	1105	0	71	32	0	roof	open windows, inspect rooftop unit damper position and fan speed
102	no	no	no	yes	1	13	0	2	1178	0	69	34	1	roof	open windows, inspect rooftop unit damper position and fan speed
113	no	no	no	yes	0	4	0	0	1184	0	70	31	1	roof	inspect rooftop unit damper position and fan speed
115	no	no	no	yes	1	4	0	0	1200	0	71	30	0	roof	inspect rooftop unit damper position and fan speed
105	no	no	no	yes	15	24	2	2	1250	0	71	33	0	roof	inspect rooftop unit damper position and fan speed
nurse	no	no	no	yes	2	6	0	0	1308	0	70	40	0	roof	inspect rooftop unit damper position and fan speed
109	no	no	no	yes	15	24	0	2	1319	0	71	32	0	roof	open windows, inspect rooftop unit damper position and fan speed
108	no	no	no	yes	17	24	0	3	1350	0	70	33	0	roof	open windows, inspect rooftop unit damper position and fan speed
106	no	no	no	yes	15	24	0	2	1460	0	72	34	0	roof	open windows, inspect rooftop unit damper position and fan speed
104	no	no	no	yes	16	24	0	2	1482	0	70	34	0	roof	open windows, inspect rooftop unit damper position and fan speed
101	no	no	no	yes	19	24	0	2	1540	0	68	39	0	roof	open windows, inspect rooftop unit damper position and fan speed
103	no	no	no	yes	18	24	0	2	1585	0	70	34	0	roof	open windows, inspect rooftop unit damper position and fan speed
															<b>Check fresh air damper</b>



School Name **Brunner Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **1/18/2023**



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Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	402	0	58	30		-	
nurse	no	no	no	yes	1	4	0	4	643	0	70	30	0	500	
118	no	no	no	yes	15	24	0	4	695	0	72	28	0	530	
107	no	no	no	yes	20	25	0	6	777	0	68	35	0	575	
122	no	no	no	yes	0	4	0	0	788	0	70	28	0	roof	
116	no	no	no	yes	22	26	0	4	849	0	71	32	0	605	
119	no	no	no	yes	18	24	0	4	874	0	72	30	0	735	open windows
111	no	no	no	yes	24	24	0	4	935	0	72	33	0	667	open windows
123	no	no	no	yes	3	4	0	2	983	0	71	30	0	roof	open windows
127	no	no	no	yes	3	16	0	3	1009	0	71	30	0	roof	open windows, inspect rooftop unit damper position and fan speed
129	no	no	no	yes	0	6	0	2	1017	0	70	30	0	roof	open windows, inspect rooftop unit damper position and fan speed
121	no	no	no	yes	18	22	0	7	1032	0	72	30	0	656	open windows, inspect unit ventilator for damper position and fan speed
210	no	no	no	yes	19	22	1	8	1040	0	72	32	0	900	inspect unit ventilator for damper position and fan speed
201	no	no	no	yes	17	20	0	4	1074	0	74	28	0	695	open windows, inspect unit ventilator for damper position and fan speed
125	no	no	no	yes	0	12	0	4	1093	0	71	31	0	roof	open windows, inspect rooftop unit damper position and fan speed
207	no	no	no	yes	1	20	0	8	1156	0	72	31	0	675	open windows, inspect unit ventilator for damper position and fan speed
205	no	no	no	yes	20	24	2	4	1200	0	71	33	0	968	inspect unit ventilator for damper position and fan speed
206	no	no	no	yes	22	24	0	4	1222	0	73	30	0	785	remove obstructions from unit ventilator, open windows, inspect unit ventilator for damper position and fan speed
105	no	no	no	yes	18	24	0	3	1222	0	72	36	0	1003	open windows, inspect unit ventilator for damper position and fan speed
203	no	no	no	yes	22	24	0	4	1282	0	72	33	0	1100	open windows, inspect unit ventilator for damper position and fan speed
211	no	no	no	yes	19	20	0	8	1283	0	74	34	0	1072	open windows, inspect unit ventilator for damper position and fan speed
208	no	no	no	yes	22	22	0	8	1465	0	71	36	0	1167	open windows, inspect unit ventilator for damper position and fan speed
113	no	no	no	no	22	23	0	4	1809	0	71	36	0	-	open windows, reactivate unit ventilator, inspect unit ventilator for damper position and fan speed
Average					14	19	0	5	1066	0	71	32	0	790	<b>New Daiken Rooftop unit services 124 to 130. Check damper and fan speed</b>