

IEA, INC.

2020 - 2021 IAQ Walkthrough



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Fridley ISD #14 Fridley Middle School

Walkthrough Date & Time:
Thursday, February 18, 2021
8:00 AM to 12:00 PM

Project Description

IEA conducted an Indoor Air Quality (IAQ) walkthrough at Fridley Middle School by IEA representative, Brian Bergstrom. This walkthrough was conducted with the intent of gathering basic air quality and visual observations which will assist the District in making informed and proactive decisions to improve and maintain acceptable air quality in the building. This walkthrough is based upon the Environmental Protection Agency's (EPA's) Tools for Schools IAQ guidelines.

Some observations gathered during the walkthrough may identify issues which may require additional testing, evaluation or further investigation.

The findings, conclusions and recommendations presented herein are believed to be accurate and representative of the building on the date and time of the walkthrough.

GENERAL COMMENTS

The analysis and opinions expressed in this report are based upon data obtained from Fridley ISD #14 at the indicated locations. This report does not reflect variations in conditions that may occur across the site, property, or facility. Actual conditions may vary and may not become evident without further assessment.

The report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted indoor air quality practices. Other than as provided in the preceding sentence, no warranties are extended or made.

Building Information

General information regarding the building was collected during the walkthrough. The information gathered during this process is a vital component, as it is helpful in determining how these items may play a role in possible IAQ related issues.

Below is a summary of the information gathered during the walkthrough:

- The building has one (1) floor.
- The building was originally constructed in 1958.
- There are additions to the building, in the following year(s): 1965.
- There are operable windows in the exterior rooms within the building.
- The building does utilize walk-off mats.
- There are no below grade floors.
- There are tunnels under portions of the building.

Observations Summary and Air Quality Measurements

Room / Location	Number of Occupants	Flooring Type	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
OUTDOORS						477	1.0	11.0	10.0
GYMNASIUM 184	0	Wood	No		Yes Air Return; Diffusers accumulating dust	512	2.3	12.2	68.8
188	13	Carpet	No		No	599	1.2	11.2	68.0
186	1	Tile	No	<ul style="list-style-type: none"> • Stained Ceiling Tiles: Center of room • Plants 	No	602	1.2	11.1	68.7
185	0	Concrete	No		Yes Air Supply	566	1.5	10.1	68.7
172A	0	Tile	No		No	562	1.4	9.6	68.2
169	0	Tile	No		No	593	1.1	9.6	68.6
170A	1	Tile	No		No	703	1.2	10.9	68.7
165	12	Tile	No		No	700	1.3	10.7	68.2
170	2	Tile	No		No	652	1.3	9.2	69.3
163	0	Tile	No		No	635	1.3	9.0	68.9
166	1	Tile	No		No	688	1.3	8.7	70.3
164A	0	Tile	No		No	701	1.4	8.7	70.4
164	0	Tile	No		No	686	1.4	8.3	70.7
161	0	Tile	No		No	684	1.3	8.5	70.9
162	10	Tile	No		No	694	1.4	8.7	71.2
156	0	Tile	No		No	677	1.3	8.3	71.0
154A	0	Tile	No		No	722	1.5	8.8	71.3

Room / Location	Number of Occupants	Flooring Type	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
153/151	15	Tile	No		No	825	1.4	9.9	71.5
154	1	Tile	No		No	750	1.3	8.6	71.2
152	11	Tile	No		No	780	1.4	9.1	70.3
150	0	Tile	No		No	829	1.4	9.5	70.8
148A	0	Tile	No		No	879	1.3	9.6	70.8
148	12	Tile	No	• Plants	No	1,003	1.3	10.5	70.9
149	10	Tile	No		No	820	1.4	9.7	71.2
147	0	Tile	No		No	774	1.3	8.8	71.0
146	14	Tile	No		No	864	1.3	10.4	71.3
141	9	Tile	No		No	773	1.2	10.2	71.6
144	0	Tile	No		No	710	1.4	9.4	71.9
142	1	Tile	No	• Stained Ceiling Tiles: See Appendix A	No	746	1.3	9.4	71.9
140	11	Tile	No		No	846	1.3	10.0	71.9
138	1	Tile	No		No	815	1.3	9.6	71.9
136	6	Tile	No		No	802	1.3	10.2	72.0
134	0	Tile	No		No	702	1.4	7.6	72.1
133	12	Tile	No	• Stained Ceiling Tiles: See Appendix A	No	851	1.2	10.9	72.0
132	3	Tile	No		No	771	1.2	8.8	71.9
130A	0	Tile	No		No	739	1.2	8.4	72.2
130	7	Tile	No		No	980	1.2	10.3	72.3
129	1	Tile	No		No	836	1.3	8.5	72.2
127	5	Tile	No		No	674	1.2	7.1	72.3
128	10	Tile	No		No	840	1.2	8.5	72.8
126	10	Tile, Rugs	No		No	833	1.2	9.3	73.0
125	13	Tile, Rugs	No		No	713	1.2	8.0	72.9

Room / Location	Number of Occupants	Flooring Type	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
123	9	Tile	No		No	755	1.1	7.8	73.1
124	7	Tile	No		No	800	1.3	7.7	72.9
122	9	Tile	No		No	871	1.2	9.1	73.2
120	1	Tile, Rugs	Yes Stuffy		No	849	1.2	7.7	73.1
118	0	Tile, Rugs	No		No	818	1.2	7.7	72.9
116	0	Tile, Rugs	No		No	753	1.3	7.6	73.0
114	1	Tile	No		No	793	1.2	8.0	72.9
117	1	Tile	No		No	685	1.1	7.4	73.1
115	7	Tile	No		No	710	1.2	7.4	73.2
112	0	Tile, Rugs	No		No	671	1.0	6.5	73.4
190	0	Carpet	No		No	649	1.1	6.7	72.6
192	0	Tile	No		No	662	1.2	6.9	73.1
194	1	Tile, Rugs	No		No	695	1.2	7.2	73.0
196	0	Carpet	No		No	671	1.2	6.0	74.4
MEDIA CENTER	8	Carpet	No		No	675	1.2	5.9	73.7
S195A	0	Tile	No		No	666	1.2	5.8	73.5
195C	1	Tile	No		No	679	1.2	6.3	73.7
198	2	Carpet	No		No	650	1.0	6.0	73.9
200	0	Tile	No	• Plants	No	671	1.0	5.9	74.3
198A	0	Carpet	No		No	678	1.2	6.6	74.9
198B	1	Carpet	No		No	717	1.1	6.5	74.2
196B	0	Carpet	No		No	702	1.1	6.2	74.4
202	0	Tile	No		No	714	1.0	6.4	73.1
204	0	Carpet	No	• Plants	No	736	1.1	6.6	72.9
107	7	Tile, Rugs	No	• Plants	No	768	1.0	7.8	73.8

Room / Location	Number of Occupants	Flooring Type	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
105	1	Tile	No		No	584	1.0	6.2	73.8
106	1	Tile, Linoleum	No		No	588	0.9	6.5	74.0
CAFETERIA	0	Tile	No		No	570	1.0	5.9	73.7
103	1	Tile	No	• Plants	No	580	0.9	8.5	74.2
101	0	Carpet	No		No	574	1.0	5.9	73.9
100E	1	Tile	No		No	632	0.9	6.5	74.5
100D	0	Carpet	No		No	609	1.0	6.6	74.7
MAIN OFFICE	1	Carpet, Tile, Rugs	No		No	626	0.9	6.7	74.2
167	0	Tile	No		No	884	1.1	10.0	74.0
GYMNASIUM 180	15	Wood	No		No	714	0.9	7.0	72.5
180	0	Rubber	No		No	685	1.0	6.9	72.4
175	1	Tile	No		No	668	0.9	7.4	73.7
177	0	Tile, Rugs	No		No	619	0.8	6.4	73.0
179	3	Tile	No		No	606	0.9	6.6	72.9
160	0	Tile, Concrete	No		No	715	1.0	7.2	72.9
160C	0	Tile, Rugs	No		No	731	1.0	7.8	73.1
172B	2	Concrete	No		No	728	0.9	7.9	72.8

Summary of Concerns & Recommendations

See below for IEA's list of concern areas and recommendations:

Indoor Air Quality Parameters/Guidelines

IEA recorded area(s) with humidity levels outside the ASHRAE recommended range of 30 - 60%. Relative humidity levels identified in area(s) listed below were found to be outside these guidelines. Low humidity levels tend to dry mucous membranes which may result in increased susceptibility to irritation. Elevated humidity levels can lead to condensation and provide conditions conducive to fungal growth. Low relative humidity is common in buildings during the heating season. An evaluation of the ventilation system controls, performance and operation is recommended.

- IEA identified eighty-four (84) rooms with relative humidity levels below 30%. However, this is common for non-humidified buildings during the heating season and is not considered an issue.

Odors

Odors were detected during the site visit in the building. If the source for the odor cannot be easily identified, it is recommended that further investigation be conducted by a professional consulting service.

- 120 *Stuffy*

Stained Ceiling Tiles

Stained ceiling tiles were found in the room(s) shown below. The impacted ceiling tiles should be removed and replaced, and the cause of the moisture repaired.

- 133
- 142
- 186 *Center of room*

Plants

Plants in an occupied location can be a source of allergens to sensitized individuals due to the pollen and soil mold. It is recommended that plants be removed from locations occupied by sensitized individuals. If plants are to remain in the area, IEA recommends that plants should not be placed near air unit ventilators or air supply diffusers. Additionally, plants should be watered from the bottom. These measures will help control pollen and mold spores from becoming airborne.

- 103
- 107
- 148
- 186
- 200
- 204

Dust Accumulation

IEA observed dust accumulation in the following room(s) and recommend that the specified area is wiped clean using a damp rag.

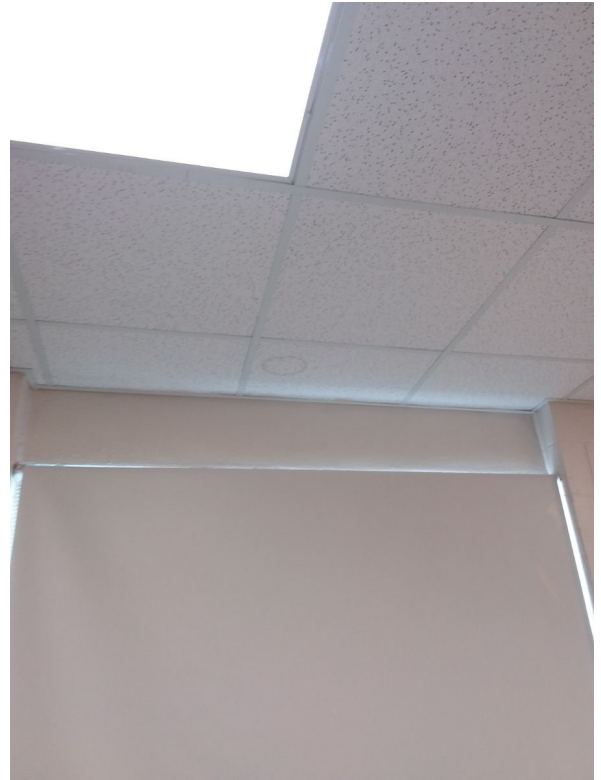
- 185 *Air Supply*
- GYMNASIUM *Air Return;*
184 *Diffusers*
 accumulating dust

Appendix A

Photo Documentation



185
Dust



142
Stained Ceiling Tiles



133
Stained Ceiling Tiles