

**THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA**

**ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT**

**TELEPHONE (754) 321-4200**

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December 12, 2022

Signature on File

**For Custodial Supervisor Use Only**

☐

Custodial Issues Addressed

☐

Custodial Issues Not Addressed

TO: Dacyany Ibarrondo, Principal  
**Ramblewood Elementary School**

FROM: Carol Gagnon, Project Manager  
Environmental Health & Safety Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

On December 8<sup>th</sup> and 12<sup>th</sup>, 2022, I conducted an assessment at **Ramblewood Elementary School, Building 2**. Attached are findings and recommendations.

This IAQ Assessment did not identify any existing conditions impacting IAQ resulting from the circumstances identified during the 2022 Thanksgiving Break. However, adjustments to the HVAC system continue as part of the SMART program scope of work. Recommendations were identified for building occupants (i.e. reduce personal items and clutter) to support on-site staff cleaning operations.

Due to individual sensitivities and predisposing health factors, it is possible that some building occupants may elicit a health response to allergens and/or conditions noted during the evaluation. Therefore, to further improve IAQ, prevent development of future IAQ-related problems, and to reduce the potential for IAQ-related complaints by building occupants, the IAQ Assessment Team recommends appropriate follow up of any item/s identified and noted in the attached evaluation.

*Please ensure that your Head Facilities Serviceperson receives a copy of this correspondence so that the recommendations requiring their attention can be addressed. In an attempt to separate IAQ issues from general maintenance items, the attached assessment may contain direction for site-based staff to generate a work order through MAXIMO. Within two weeks a representative from the Custodial/Grounds Department will conduct a follow-up visit to ensure that all site based custodial issues have been appropriately addressed.*

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact us at 754-321-4200.

CG: lb  
Enc.

cc: Sam Bays, Task Assigned Executive Director, Facilities & Construction Management  
Shelley Meloni, Director, Pre-Construction  
Greg Neiman, Area Supervisor, Zone 1  
Scott Gillen, Manager, Zone 2  
Dale Spear, Manager, Zone 3  
Allen Behnke, Area Manager Trades  
Benjamin Osborne, Manager Custodial  
Broward Teachers Union  
Federation of Public Employees

# Multiple Room IAQ Assessment

Ramblewood Elementary School

Evaluation Date December 12, 2022

Time of Day 7:30

Outdoor Conditions Temperature 65.5 Relative Humidity 86.8 Ambient CO2 487

| FISH            | Temperature | Range                            | Relative Humidity | Range             | CO2 | Range                       |
|-----------------|-------------|----------------------------------|-------------------|-------------------|-----|-----------------------------|
| INFO            |             | 72 - 78                          |                   | 30% - 60%         |     | MAX 700 > Ambient           |
| Noticeable Odor |             | Visible water damage / staining? |                   | Visible Spotting? |     | Amount of material affected |
| Ceiling         |             |                                  |                   |                   |     |                             |
| Walls           |             |                                  |                   |                   |     |                             |
| Floor           |             |                                  |                   |                   |     |                             |

Follow up inspection from 12/8/2022.

Building still not occupied.

Odor present in hallway upon building entry is of new/replaced building materials and multiple cleaning processes.

| FISH            | Temperature       | Range                            | Relative Humidity | Range             | CO2 | Range                       |
|-----------------|-------------------|----------------------------------|-------------------|-------------------|-----|-----------------------------|
| 2-201           | 65.0              | 72 - 78                          | 62.7              | 30% - 60%         | 501 | MAX 700 > Ambient           |
| Noticeable Odor | No                | Visible water damage / staining? |                   | Visible Spotting? |     | Amount of material affected |
| Ceiling         | 2' X 2' Lay in    | No                               |                   | No                |     |                             |
| Walls           | Drywall/Tackboard | No                               |                   | No                |     |                             |
| Floor           | 12" x 12" Vinyl   | No                               |                   | No                |     |                             |

Room too cluttered to clean properly. Room had fake plants. Room had stuffed animals which become dust reservoirs.

| FISH            | Temperature       | Range                            | Relative Humidity | Range             | CO2 | Range                       |
|-----------------|-------------------|----------------------------------|-------------------|-------------------|-----|-----------------------------|
| 2-207           | 65.0              | 72 - 78                          | 63.3              | 30% - 60%         | 487 | MAX 700 > Ambient           |
| Noticeable Odor | No                | Visible water damage / staining? |                   | Visible Spotting? |     | Amount of material affected |
| Ceiling         | 2' X 2' Lay in    | No                               |                   | No                |     |                             |
| Walls           | Drywall/Tackboard | No                               |                   | No                |     |                             |
| Floor           | 12" x 12" Vinyl   | No                               |                   | No                |     |                             |

Room had fake plants. Room had stuffed animals which become dust reservoirs.

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| FISH            | Temperature       | Range   | Relative Humidity                | Range     | CO2               | Range             |                             |
|-----------------|-------------------|---------|----------------------------------|-----------|-------------------|-------------------|-----------------------------|
| 2-208           | 65.6              | 72 - 78 | 62.9                             | 30% - 60% | 504               | MAX 700 > Ambient |                             |
| Noticeable Odor |                   | No      | Visible water damage / staining? |           | Visible Spotting? |                   | Amount of material affected |
| Ceiling         | 2' X 2' Lay in    |         | No                               |           | No                |                   |                             |
| Walls           | Drywall/Tackboard |         | No                               |           | No                |                   |                             |
| Floor           | 12" x 12" Vinyl   |         | No                               |           | No                |                   |                             |

Room had fake plants. Room had cardboard boxes. Food not stored in sealed containers. Remove non approved chemicals (spray perfumes).

| FISH            | Temperature       | Range   | Relative Humidity                | Range     | CO2               | Range             |                             |
|-----------------|-------------------|---------|----------------------------------|-----------|-------------------|-------------------|-----------------------------|
| 2-209           | 64.7              | 72 - 78 | 61.7                             | 30% - 60% | 494               | MAX 700 > Ambient |                             |
| Noticeable Odor |                   | No      | Visible water damage / staining? |           | Visible Spotting? |                   | Amount of material affected |
| Ceiling         | 2' X 2' Lay in    |         | No                               |           | No                |                   |                             |
| Walls           | Drywall/Tackboard |         | No                               |           | No                |                   |                             |
| Floor           | 12" x 12" Vinyl   |         | No                               |           | No                |                   |                             |

Room had cardboard boxes. Room had stuffed animals which become dust reservoirs. Food not stored in sealed containers. Remove non approved chemicals (spray perfumes).

| FISH            | Temperature       | Range   | Relative Humidity                | Range     | CO2               | Range             |                             |
|-----------------|-------------------|---------|----------------------------------|-----------|-------------------|-------------------|-----------------------------|
| 2-210           | 64.4              | 72 - 78 | 63.7                             | 30% - 60% | 496               | MAX 700 > Ambient |                             |
| Noticeable Odor |                   | No      | Visible water damage / staining? |           | Visible Spotting? |                   | Amount of material affected |
| Ceiling         | 2' X 2' Lay in    |         | No                               |           | No                |                   |                             |
| Walls           | Drywall/Tackboard |         | No                               |           | No                |                   |                             |
| Floor           | 12" x 12" Vinyl   |         | No                               |           | No                |                   |                             |

Room had cardboard boxes.

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| FISH            | Temperature       | Range   | Relative Humidity                | Range     | CO2               | Range             |                             |
|-----------------|-------------------|---------|----------------------------------|-----------|-------------------|-------------------|-----------------------------|
| 2-211           | 66.4              | 72 - 78 | 64.8                             | 30% - 60% | 529               | MAX 700 > Ambient |                             |
| Noticeable Odor |                   | Yes     | Visible water damage / staining? |           | Visible Spotting? |                   | Amount of material affected |
| Ceiling         | 2' X 2' Lay in    |         | No                               |           | No                |                   |                             |
| Walls           | Drywall/Tackboard |         | No                               |           | No                |                   |                             |
| Floor           | 12" x 12" Vinyl   |         | No                               |           | No                |                   |                             |

Odor present from new ceiling tiles in room.

| FISH            | Temperature       | Range   | Relative Humidity                | Range     | CO2               | Range             |                             |
|-----------------|-------------------|---------|----------------------------------|-----------|-------------------|-------------------|-----------------------------|
| 2-213           | 67.9              | 72 - 78 | 58.4                             | 30% - 60% | 568               | MAX 700 > Ambient |                             |
| Noticeable Odor |                   | No      | Visible water damage / staining? |           | Visible Spotting? |                   | Amount of material affected |
| Ceiling         | 2' X 2' Lay in    |         | No                               |           | No                |                   |                             |
| Walls           | Drywall/Tackboard |         | No                               |           | No                |                   |                             |
| Floor           | 12" x 12" Vinyl   |         | No                               |           | No                |                   |                             |

Room had cardboard boxes. Run water into sink drains on a monthly basis.

| FISH            | Temperature       | Range   | Relative Humidity                | Range     | CO2               | Range             |                             |
|-----------------|-------------------|---------|----------------------------------|-----------|-------------------|-------------------|-----------------------------|
| 2-215           | 68.5              | 72 - 78 | 60.6                             | 30% - 60% | 545               | MAX 700 > Ambient |                             |
| Noticeable Odor |                   | No      | Visible water damage / staining? |           | Visible Spotting? |                   | Amount of material affected |
| Ceiling         | 2' X 2' Lay in    |         | No                               |           | No                |                   |                             |
| Walls           | Drywall/Tackboard |         | No                               |           | No                |                   |                             |
| Floor           | 12" x 12" Vinyl   |         | No                               |           | No                |                   |                             |

Room had cardboard boxes.

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| FISH            | Temperature       | Range   | Relative Humidity                | Range     | CO2               | Range             |                             |
|-----------------|-------------------|---------|----------------------------------|-----------|-------------------|-------------------|-----------------------------|
| 2-217           | 69.3              | 72 - 78 | 56.1                             | 30% - 60% | 526               | MAX 700 > Ambient |                             |
| Noticeable Odor |                   | No      | Visible water damage / staining? |           | Visible Spotting? |                   | Amount of material affected |
| Ceiling         | 2' X 2' Lay in    |         | No                               |           | No                |                   |                             |
| Walls           | Drywall/Tackboard |         | No                               |           | No                |                   |                             |
| Floor           | 12" x 12" Vinyl   |         | No                               |           | No                |                   |                             |

Remove unlabeled spray bottle with unknown liquid. Call in work order for pest control.

| FISH            | Temperature       | Range   | Relative Humidity                | Range     | CO2               | Range             |                             |
|-----------------|-------------------|---------|----------------------------------|-----------|-------------------|-------------------|-----------------------------|
| 2-218           | 69.5              | 72 - 78 | 56.5                             | 30% - 60% | 545               | MAX 700 > Ambient |                             |
| Noticeable Odor |                   | No      | Visible water damage / staining? |           | Visible Spotting? |                   | Amount of material affected |
| Ceiling         | 2' X 2' Lay in    |         | No                               |           | No                |                   |                             |
| Walls           | Drywall/Tackboard |         | No                               |           | No                |                   |                             |
| Floor           | 12" x 12" Vinyl   |         | No                               |           | No                |                   |                             |

Room too cluttered to clean properly. Room had fake plants. Room had cardboard boxes. Room had stuffed animals which become dust reservoirs.

| FISH            | Temperature       | Range   | Relative Humidity                | Range     | CO2               | Range             |                             |
|-----------------|-------------------|---------|----------------------------------|-----------|-------------------|-------------------|-----------------------------|
| 2-216           | 70.0              | 72 - 78 | 59.6                             | 30% - 60% | 516               | MAX 700 > Ambient |                             |
| Noticeable Odor |                   | No      | Visible water damage / staining? |           | Visible Spotting? |                   | Amount of material affected |
| Ceiling         | 2' X 2' Lay in    |         | No                               |           | No                |                   |                             |
| Walls           | Drywall/Tackboard |         | No                               |           | No                |                   |                             |
| Floor           | Concrete          |         | No                               |           | No                |                   |                             |

Room too cluttered to clean properly. Room had fake plants. Room had cardboard boxes. Room had stuffed animals which become dust reservoirs. Food not stored in sealed containers.

# Multiple Room IAQ Assessment

Ramblewood Elementary School

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Outdoor Conditions Temperature 65.5 Relative Humidity 86.8 Ambient CO2 487

| FISH            | Temperature       | Range   | Relative Humidity                | Range     | CO2               | Range             |
|-----------------|-------------------|---------|----------------------------------|-----------|-------------------|-------------------|
| 2-214           | 69.9              | 72 - 78 | 53.7                             | 30% - 60% | 518               | MAX 700 > Ambient |
| Noticeable Odor |                   | No      | Visible water damage / staining? |           | Visible Spotting? |                   |
| Ceiling         | 2' X 2' Lay in    |         | No                               |           | No                |                   |
| Walls           | Drywall/Tackboard |         | No                               |           | No                |                   |
| Floor           | 12" x 12" Vinyl   |         | No                               |           | No                |                   |

Room too cluttered to clean properly. Room had cardboard boxes. Room had stuffed animals which become dust reservoirs.

| FISH            | Temperature       | Range   | Relative Humidity                | Range     | CO2               | Range             |
|-----------------|-------------------|---------|----------------------------------|-----------|-------------------|-------------------|
| 2-212           | 69.5              | 72 - 78 | 57.6                             | 30% - 60% | 522               | MAX 700 > Ambient |
| Noticeable Odor |                   | No      | Visible water damage / staining? |           | Visible Spotting? |                   |
| Ceiling         | 2' X 2' Lay in    |         | No                               |           | No                |                   |
| Walls           | Drywall/Tackboard |         | No                               |           | No                |                   |
| Floor           | 12" x 12" Vinyl   |         | No                               |           | No                |                   |

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|

| FISH            | Temperature | Range   | Relative Humidity                | Range     | CO2               | Range             |
|-----------------|-------------|---------|----------------------------------|-----------|-------------------|-------------------|
| 2-215B          |             | 72 - 78 |                                  | 30% - 60% |                   | MAX 700 > Ambient |
| Noticeable Odor |             | No      | Visible water damage / staining? |           | Visible Spotting? |                   |
| Ceiling         | metal       |         | No                               |           | No                |                   |
| Walls           | Drywall     |         | No                               |           | No                |                   |
| Floor           | Concrete    |         | No                               |           | No                |                   |

Mechanical room with AHU 2-4

Need to remove paper tag on blower wheel.

# Multiple Room IAQ Assessment

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| FISH            | Temperature | Range   | Relative Humidity                | Range             | CO2 | Range                       |
|-----------------|-------------|---------|----------------------------------|-------------------|-----|-----------------------------|
| 2-217C          |             | 72 - 78 |                                  | 30% - 60%         |     | MAX 700 > Ambient           |
| Noticeable Odor | No          |         | Visible water damage / staining? | Visible Spotting? |     | Amount of material affected |
| Ceiling         | metal       |         | No                               | No                |     |                             |
| Walls           | Drywall     |         | No                               | No                |     |                             |
| Floor           | Concrete    |         | No                               | No                |     |                             |

Mechanical room with AHU 2-5.

Need to remove paper tag on blower wheel.

| FISH            | Temperature | Range   | Relative Humidity                | Range             | CO2 | Range                       |
|-----------------|-------------|---------|----------------------------------|-------------------|-----|-----------------------------|
|                 |             | 72 - 78 |                                  | 30% - 60%         |     | MAX 700 > Ambient           |
| Noticeable Odor |             |         | Visible water damage / staining? | Visible Spotting? |     | Amount of material affected |
| Ceiling         |             |         |                                  |                   |     |                             |
| Walls           |             |         |                                  |                   |     |                             |
| Floor           |             |         |                                  |                   |     |                             |

| FISH            | Temperature | Range   | Relative Humidity                | Range             | CO2 | Range                       |
|-----------------|-------------|---------|----------------------------------|-------------------|-----|-----------------------------|
|                 |             | 72 - 78 |                                  | 30% - 60%         |     | MAX 700 > Ambient           |
| Noticeable Odor |             |         | Visible water damage / staining? | Visible Spotting? |     | Amount of material affected |
| Ceiling         |             |         |                                  |                   |     |                             |
| Walls           |             |         |                                  |                   |     |                             |
| Floor           |             |         |                                  |                   |     |                             |

**Ramblewood Elementary School IAQ inspection building 2 on 12/12/2022**

| <b>Corrective actions to be completed by site based staff</b> | <b>FISH</b>                            |
|---|--|
| Remove cardboard boxes, store in plastic containers           | 208, 209, 210, 213, 214, 215, 216, 218 |
| Room too cluttered to clean properly/reduce clutter           | 201, 214, 216, 218                     |
| Remove/clean fake plants in room                              | 201, 207, 208, 216, 218                |
| Remove stuffed animals from room, allergen source             | 201, 207, 209, 214, 216, 218           |
| Store food in sealed containers                               | 208, 209, 216                          |
| Remove unlabeled spray bottle with liquid                     | 217                                    |
| Call in order for pest control                                | 217                                    |
| Run water in sinks on monthly basis                           | 213                                    |
| Remove non approved chemicals (spray perfumes)                | 208, 209                               |

| <b>Corrective actions to be completed by SMART/AECOM</b> | <b>FISH</b>                  |
|--|------------------------------|
| Evaluate HVAC set temperature 72-78 degrees              | 201, 207, 208, 209, 210, 211 |
| Repair HVAC to reduce humidity levels                    | 201, 207, 208, 209, 210, 211 |
| Remove paper tag on blower wheel inside AHU              | 215B, 217C                   |