

# managing risk with responsibility

| Aston A. Henry, Director<br>Risk Management Department |   | Telephone:<br>Fax: | 754 321-1900<br>754 321-1917       |  |
|--|---|--------------------|------------------------------------|--|
| August 20, 2   | 2013 Signature on File                                      | For Custodial S    | upervisor Use Only                 |  |
| ТО:  | Matthew Whaley, Principal  Meadowbrook Elementary School    |                    | ues Addressed<br>ues Not Addressed |  |
| FROM:  | Richard Rosa, Project Manager<br>Risk Management Department |                    |                                    |  |
| SUBJECT:   | Indoor Air Quality (IAQ) Assessment                         |                    |                                    |  |

On August 15, 2013, I conducted an assessment at **Meadowbrook Elementary School**. Attached are findings and recommendations for further assessment, remediation, or corrective actions needed.

The IAQ assessment did identify one or more existing conditions impacting IAQ and has generated appropriate work orders to correct deficiencies in systems and maintenance that could contribute to decreased indoor air quality. At the time of the assessment, these concerns were not an immediate health or safety concern to building occupants. However, due to individual sensitivities and predisposing health factors, it is possible that some building occupants may elicit a health response to agents and / or conditions identified 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 each item identified and listed 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 COMPASS. 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 754-321-1907.

cc: Shelley Meloni, Task Assigned Chief Facilities & Construction Officer, Facilities & Construction Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division Aston Henry, Director, Risk Management Sonja Coley, Senior Project Manager, Facilities & Construction Broward Teachers Union Federation of Public Employees

RR/tc Enc.

# **IAQ Assessment**

| Meadowbrook Eleme  | entary Evaluation Date                         | te August 15, 2013        | Time of Day 12                             | 2:30    |
|--|--|---------------------------|--|---------|
| Outdoor Conditions Temperature   | 76.8 Relative                                  | e Humidity 99.9           | Ambient CO2 45                             | 54      |
| Fish         Temperature         Range           002B         74.1         72 - 78   |  | Range CO <sup>2</sup> 622 | Range # Oc<br>MAX 700 ><br>Ambient         | cupants |
| Noticeable Odor No   | Visible water damage / staining?               | Visible microbial growth? | Amount of<br>material affected             |         |
| Ceiling 2' x 4'  | No   | No                        |  |         |
| Walls Drywall  | Yes  | No                        | 3 sq ft paint peeling from                 | n wall  |
| Floor 12" x 12" Vinyl  | No   | No                        |  |         |
| Ceiling Clean Yes Walls Clean No   | HVAC Supply<br>Grills Clean                    | N/a                       | HVAC Return<br>Grills Clean                | N/a     |
| Flooring Clean Yes   | Inside of Supply<br>Duct Clean                 | N/A                       | Inside of Return<br>Duct Clean             | N/A     |
| Room Surfaces N/a Clean  | Ceiling at Supply<br>Grills Clean              | N/a                       |  |         |
| Trash Removed N/A  | Exhaust Fans Working                           | N/A                       | Unapproved Chemicals /<br>Cleaners in Room | No      |
| Signs of Pests No  | Drain Traps Wet                                | N/A                       | Air Fresheners                             | No      |
| Room Cluttered N/A   | Food if Stored in Room is in Sealed Containers | N/A                       | in Room                                    |         |
| Mechanical Equipment Location FISH   | l 124  |                           | Mechanical Room Clean                      | Yes     |
| Filters Installed Properly Yes   | Filters Clean                                  | Yes                       | Inside of HVAC Unit Clean                  | Yes     |
| Condensate Pan Clean Yes   | Cooling Coil Clean                             | Yes                       |  |         |
| Pollutant Sources Near Air   | f top  | ▼                         | Fresh Air Intake Free of Obstruction       | Yes     |
| Observations (1997)  |  |                           |  |         |
| Once again evaluate the reasoning for the fresh air damper to be fully closed in the day time, possibly wired wrong.  There is no return air or supply in this space. Peeling paint on walls due to temperature fluctuation and no air movement in this space. |  |                           |  |         |
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| Corrective Actions to be Completed I   | by Site Based Staff                            | Corrective Action         | s to be Completed by PP                    | 0       |

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| Repair peeling paint on walls                     | ▼ |
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| Evaluate fresh air dampers in the mechanical room |   |
| Evaluate the need for HVAC in this space          | ▼ |
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# **IAQ Assessment**

| Meadowbrook                          | Elementary Evaluation Dat                      | e August 15, 2013         | Time of Day 12:30                        |
|--------------------------------------|--|---------------------------|--|
| Outdoor Conditions Temper            | ature 76.8 Relative                            | Humidity 99.9             | Ambient CO2 454                          |
|                                      |  | Range <u>co</u> 628       | <del></del>                              |
| Noticeable Odor No                   | Visible water damage / staining?               | Visible microbial growth? | Amount of material affected              |
| Ceiling 2' x 4'                      | No   | No                        |  |
| Walls Drywall                        | Yes  | Yes                       | various areas                            |
| Floor Carpet                         | No   | No                        |  |
| Ceiling Clean Yes Walls Clean No     | HVAC Supply<br>Grills Clean                    | Yes                       | HVAC Return Grills Clean N/a             |
| Flooring Clean Yes                   | Inside of Supply<br>Duct Clean                 | Yes                       | Inside of Return Duct Clean              |
| Room Surfaces No Clean               | Ceiling at Supply<br>Grills Clean              | Yes                       |  |
| Trash Removed Yes                    | Exhaust Fans Working                           | N/A                       | Unapproved Chemicals / Cleaners in Room  |
| Signs of Pests No                    | Drain Traps Wet                                | N/A                       | Air Fresheners No                        |
| Room Cluttered No                    | Food if Stored in Room is in Sealed Containers | N/A                       | in Room                                  |
| Mechanical Equipment Location        | FISH 124                                       |                           | Mechanical Room Clean Yes                |
| Filters Installed Properly Yes       | Filters Clean                                  | Yes                       | Inside of HVAC Unit Clean Yes            |
| Condensate Pan Clean Yes             | Cooling Coil Clean                             | Yes                       |  |
| Fresh Air Intake Location            | Roof top                                       | ▼                         | Fresh Air Intake Free Of Obstruction Yes |
| Pollutant Sources Near Air<br>Intake | No   | ▼                         | of Obstruction                           |
| Observations                         |  |                           |  |
|                                      |  |                           |  |

Pull desk and hutch away from wall and clean wall properly. Wipe the walls with wexcide and clean microbial growth from desk and other associated belongings. Once again evaluate the reasoning for the fresh air damper to be fully closed in the day time, possibly wired wrong. There is no return air in this room, door cannot stay open all the time due to the occupants job. There was a small space heater on at the time of the assessment, occupant is always cold in this room.

# **Corrective Actions to be Completed by Site Based Staff**

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#### Corrective Actions to be Completed by PPO

| Set temperature to 72 - 78 degrees                | ▼ |
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| Evaluate fresh air dampers in the mechanical room | ▼ |
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# **IAQ Assessment**

| Meadowbrook Elem  | entary Evaluation Dat                          | e August 15, 2013                      | Time of Day1                               | 1:30    |
|---|--|--|--|---------|
| Outdoor Conditions Temperature  | 76.8 Relative                                  | Humidity 99.9                          | Ambient CO2 4                              | 54      |
| Fish         Temperature         Range           105         70.7         72 - 78 |  | Range <u>CO</u><br>% - <b>60</b> % 588 |  | cupants |
| Noticeable Odor No  | Visible water damage / staining?               | Visible microbial growth?              | Amount of material affected                |         |
| Ceiling 2' x 4'   | No   | No                                     |  |         |
| Walls Plaster/concrete  | Yes  | Yes                                    | various areas                              |         |
| Floor Carpet  | No   | No                                     |  |         |
| Ceiling Clean No  | HVAC Supply<br>Grills Clean                    | Yes                                    | HVAC Return<br>Grills Clean                | No      |
| Walls Clean No Flooring Clean Yes   | Inside of Supply<br>Duct Clean                 | Yes                                    | Inside of Return<br>Duct Clean             | N/A     |
| Room Surfaces Yes Clean   | Ceiling at Supply<br>Grills Clean              | Yes                                    |  |         |
| Trash Removed Yes   | Exhaust Fans Working                           | N/A                                    | Unapproved Chemicals /<br>Cleaners in Room | No      |
| Signs of Pests No   | <b>Drain Traps Wet</b>                         | N/A                                    |  |         |
| Room Cluttered No   | Food if Stored in Room is in Sealed Containers | N/A                                    | Air Fresheners<br>in Room                  | No      |
| Mechanical Equipment Location FIS   | H 124  |  | Mechanical Room Clean                      | Yes     |
| Filters Installed Properly Yes  | Filters Clean                                  | Yes                                    | Inside of HVAC Unit Clean                  | Yes     |
| Condensate Pan Clean Yes  | Cooling Coil Clean                             | Yes                                    |  |         |
| Fresh Air Intake Location Roc   | of top   | ▼                                      | Fresh Air Intake Free of Obstruction       | Yes     |
| Pollutant Sources Near Air<br>Intake  |  | ▼                                      | or obstruction                             |         |
| Observations  |  |  |  |         |

105B-one water stained ceiling tile. The walls have been wiped with wexcide prior to the assessment. Visible microbial growth still apparent on two upholstered chairs. Above the drop ceiling is the return air plenum, the pressure is so strong that air forces the ceiling tiles to be sucked into the ceiling in areas. Dust is visible in areas around the ceiling grid. Once again evaluate the reasoning for the fresh air damper to be fully closed in the day time, possibly wired wrong.

# Corrective Actions to be Completed by Site Based Staff

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# **Corrective Actions to be Completed by PPO**

| Set temperature to 72 - 78 degrees                | ▼ |
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| Evaluate fresh air dampers in the mechanical room |   |
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