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August 2, 2012

Signature on File

TO: Michelle Engram, Principal  
**Fairway Elementary School**

FROM: Richard Rosa, Project Manager  
Facilities Design and Construction

SUBJECT: Indoor Air Quality (IAQ) Assessment

| <u>For Custodial Supervisor Use Only</u> |                                |
|--|--------------------------------|
| <input type="checkbox"/>                 | Custodial Issues Addressed     |
| <input type="checkbox"/>                 | Custodial Issues Not Addressed |
| _____                                    |                                |
| _____                                    |                                |

On November 3, 2011, I conducted an assessment at **Fairway 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: Directors, School Performance & Accountability  
Shelley Meloni, Executive Director, Facilities Design and Construction  
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division  
Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division  
Aston Henry, Supervisor, Risk Management  
Sonja Coley, Senior Project Manager, Facilities Design and Construction  
Broward Teachers Union  
Federation of Public Employees

RR/jg  
Enc.

# IAQ Assessment

Location Number   
 Evaluation Requested   
 Evaluation Date

Fairway Elementary School

Time of Day

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

|                                  |  |                                      |                                   |  |   |   |                      |
|----------------------------------|--|--------------------------------------|-----------------------------------|--|---|---|----------------------|
| Fish                             | Temperature                                    | Range                                | Relative Humidity                 | Range                                  | CO2   | Range   | # Occupants          |
| <input type="text" value="110"/> | <input type="text" value="72.9"/>              | <input type="text" value="72 - 78"/> | <input type="text" value="58.8"/> | <input type="text" value="30% - 60%"/> | <input type="text" value="629"/>                | <input type="text" value="Max 700 &gt; Ambient"/> | <input type="text"/> |
| Noticeable Odor                  | <input type="text" value="No"/>                |                                      | Visible water damage / staining?  | Visible microbial growth?              | Amount of material affected                     |   |                      |
| Ceiling Type                     | <input type="text" value="2 x 4 Lay in"/>      |                                      | <input type="text" value="No"/>   | <input type="text" value="No"/>        | <input type="text"/>                            |   |                      |
| Wall Type                        | <input type="text" value="Tackboard/Drywall"/> |                                      | <input type="text" value="Yes"/>  | <input type="text" value="No"/>        | <input type="text" value="Wet wall per meter"/> |   |                      |
| Flooring                         | <input type="text" value="12 x 12 vinyl"/>     |                                      | <input type="text" value="No"/>   | <input type="text" value="No"/>        | <input type="text"/>                            |   |                      |

|                          | Clean                               | Minor Dust / Debris                 | Needs Cleaning                   | Corrective Action Required                       |
|--------------------------|-------------------------------------|-------------------------------------|----------------------------------|--|
| Ceiling                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>         | <input type="text"/>                             |
| Walls                    | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="text" value="Yes"/> | <input type="text" value="See Below"/>           |
| Flooring                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="text" value="Yes"/> | <input type="text" value="See Below"/>           |
| HVAC Supply Grills       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="text" value="Yes"/> | <input type="text" value="Clean appropriately"/> |
| HVAC Return Grills       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>         | <input type="text"/>                             |
| Ceiling at Supply Grills | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>         | <input type="text" value="Clean appropriately"/> |
| Surfaces in Room         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="text" value="Yes"/> | <input type="text" value="Clean appropriately"/> |

**Observations**

**Findings**

- FISH 110- Elevated moisture and visible water damage/staining on wall adjacent to restroom and around the corner extending to the north wall.
- FISH 110 - Crack in floor by cabinetry

**Site Based Maintenance**

- FISH 110 - Clean HVAC supply grills and ceilings at supply grills
- Redirect lawn sprinklers away from building

**Physical Plant Operation**

- FISH 110- Remove and replace wall material the entire length and up 4 feet as identified above. Remove cabinets and inspect for water damage. Evaluate crack in floor by cabinetry

-Note Work orders EQ2223 through EQ02224 issued 11/14/11

# IAQ Assessment

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Fairway Elementary School

Time of Day

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

|                                  |  |                                      |                                   |  |   |   |                      |
|----------------------------------|--|--------------------------------------|-----------------------------------|--|---|---|----------------------|
| Fish                             | Temperature                                | Range                                | Relative Humidity                 | Range                                  | CO2   | Range   | # Occupants          |
| <input type="text" value="754"/> | <input type="text" value="70.4"/>          | <input type="text" value="72 - 78"/> | <input type="text" value="57.1"/> | <input type="text" value="30% - 60%"/> | <input type="text" value="821"/>                | <input type="text" value="Max 700 &gt; Ambient"/> | <input type="text"/> |
| Noticeable Odor                  | <input type="text" value="No"/>            |                                      | Visible water damage / staining?  | Visible microbial growth?              | Amount of material affected                     |   |                      |
| Ceiling Type                     | <input type="text" value="2 x 2 Lay in"/>  |                                      | <input type="text" value="No"/>   | <input type="text" value="No"/>        | <input type="text"/>                            |   |                      |
| Wall Type                        | <input type="text" value="Drywall"/>       |                                      | <input type="text" value="Yes"/>  | <input type="text" value="No"/>        | <input type="text" value="Wet wall per meter"/> |   |                      |
| Flooring                         | <input type="text" value="12 x 12 vinyl"/> |                                      | <input type="text" value="No"/>   | <input type="text" value="No"/>        | <input type="text"/>                            |   |                      |

|                          | Clean                               | Minor Dust / Debris                 | Needs Cleaning                      | Corrective Action Required                       |
|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|
| Ceiling                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="text"/>                             |
| Walls                    | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="text" value="See Below"/>           |
| Flooring                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="text"/>                             |
| HVAC Supply Grills       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="text" value="Clean appropriately"/> |
| HVAC Return Grills       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="text" value="Clean appropriately"/> |
| Ceiling at Supply Grills | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="text"/>                             |
| Surfaces in Room         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="text" value="Clean appropriately"/> |

**Observations**

**Findings**  
 - FISH 754- Elevated moisture and visible water damage/staining on wall under windows (north wall)

**Site Based Maintenance**  
 - FISH 754 - Clean HVAC supply grills and ceilings at supply grills  
 - Redirect lawn sprinklers away from building

**Physical Plant Operation**  
 - FISH 754- Remove and replace wall material under windows as identified above. Remove cabinets under windows and inspect for water damage. Seal the exterior cracks in the stucco of the building prior to interior remediation.

-Note Work orders EQ2223 through EQ02224 issued 11/14/11

# IAQ Assessment

Location Number   
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 Evaluation Date

Fairway Elementary School

Time of Day

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

|                                  |  |                                      |                                   |  |                                  |   |                      |
|----------------------------------|--|--------------------------------------|-----------------------------------|--|----------------------------------|---|----------------------|
| Fish                             | Temperature                                | Range                                | Relative Humidity                 | Range                                  | CO2                              | Range   | # Occupants          |
| <input type="text" value="758"/> | <input type="text" value="76.4"/>          | <input type="text" value="72 - 78"/> | <input type="text" value="54.4"/> | <input type="text" value="30% - 60%"/> | <input type="text" value="986"/> | <input type="text" value="Max 700 &gt; Ambient"/> | <input type="text"/> |
| Noticeable Odor                  |  | Visible water damage / staining?     |                                   | Visible microbial growth?              |                                  | Amount of material affected                       |                      |
| <input type="text" value="No"/>  |  | <input type="text" value="No"/>      |                                   | <input type="text" value="No"/>        |                                  | <input type="text"/>                              |                      |
| Ceiling Type                     | <input type="text" value="2 x 2 Lay in"/>  |                                      | <input type="text" value="No"/>   | <input type="text" value="No"/>        |                                  | <input type="text"/>                              |                      |
| Wall Type                        | <input type="text" value="Drywall"/>       |                                      | <input type="text" value="Yes"/>  | <input type="text" value="No"/>        |                                  | <input type="text" value="Wet wall per meter"/>   |                      |
| Flooring                         | <input type="text" value="12 x 12 vinyl"/> |                                      | <input type="text" value="No"/>   | <input type="text" value="No"/>        |                                  | <input type="text"/>                              |                      |

|                          | Clean                               | Minor Dust / Debris                 | Needs Cleaning                      | Corrective Action Required                       |
|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|
| Ceiling                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="text"/>                             |
| Walls                    | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="text" value="See Below"/>           |
| Flooring                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="text"/>                             |
| HVAC Supply Grills       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="text" value="Clean appropriately"/> |
| HVAC Return Grills       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="text" value="Clean appropriately"/> |
| Ceiling at Supply Grills | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="text"/>                             |
| Surfaces in Room         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="text" value="Clean appropriately"/> |

**Observations**

**Findings**  
 - FISH 758- Elevated moisture and visible water damage/staining on wall under east window (north wall)

**Site Based Maintenance**  
 - FISH 758 - Clean HVAC supply grills and ceilings at supply grills  
 - FISH 758 - Clean elevated surfaces to remove dust  
 - Redirect lawn sprinklers away from building

**Physical Plant Operation**  
 - FISH 758- Remove and replace wall material under windows as identified above. Remove cabinets under windows and inspect for water damage. Seal the exterior cracks in the stucco of the building prior to interior remediation.

-Note Work orders EQ2223 through EQ02224 issued 11/14/11