

Aston A. Henry, Supervisor  
Risk Management Department

Telephone: 754 321-1900  
Fax: 754 321-1917

April 16, 2012

**Signature on File**

TO: Bradford Mattair, Principal  
**Parkway Middle School**

FROM: Richard Rosa, Project Manager  
Facilities and Construction Management

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 February 3, 2012, I conducted an assessment at **Parkway Middle 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: Area Superintendent  
Area Directors  
Shelley Meloni, Executive Director, Facilities and Construction Management  
Mark Dorsett, Acting Director, Physical Plant Operations Division, Maintenance  
Sonja Coley, Project Manager III, Facilities and Construction Management  
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division  
Aston Henry, Supervisor, Risk Management  
Broward Teachers Union  
Federation of Public Employees

RR/tc  
Enc.

# IAQ Assessment

Parkway Middle School

Location Number   
 Evaluation Requested   
 Evaluation Date

Time of Day

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="140"/>	<input type="text" value="71.1"/>	<input type="text" value="72 - 78"/>	<input type="text" value="51.8"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="1670"/>	<input type="text" value="Max 700 &gt; Ambient"/>	<input type="text" value="27"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="2 ceiling tiles (5 square feet)"/>	
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="Yes"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	
Wall Type	<input type="text" value="Drywall"/>		<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	
Flooring	<input type="text" value="12 x 12 Vinyl"/>		<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Remove and replace"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
HVAC Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
HVAC Return Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Ceiling at Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
Surfaces in Room	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>

## Observations

**Findings**

- Dust build up on surfaces
- Dust build up on HVAC supply and return grills
- Slightly elevated CO2 level
- Stained ceiling tiles

**Site Based Maintenance:**

- Thoroughly clean all surfaces throughout the room
- Clean HVAC supply and return grills with Wexcide disinfectant solution
- Remove and replace outside air filters for all units more frequently due to irrigation work outside the classrooms.
- Remove and replace stained ceiling tiles as necessary.
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

**Physical Plant Operations:**

- Evaluate HVAC system for proper operation and repair as appropriate to lower CO2
- Evaluate for cause of stained ceiling tiles and repair as appropriate. Remove and replace ceiling tiles as necessary.

- NOTE: Work orders EQ02304 and EQ02305 generated 2-23-12

# IAQ Assessment

Location Number

Parkway Middle School

Evaluation Requested

Time of Day

Evaluation Date

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input style="width: 40px;" type="text" value="160"/>	<input style="width: 40px;" type="text" value="73.4"/>	<input style="width: 40px;" type="text" value="72 - 78"/>	<input style="width: 40px;" type="text" value="53.5"/>	<input style="width: 40px;" type="text" value="30% - 60%"/>	<input style="width: 40px;" type="text" value="1222"/>	<input style="width: 40px;" type="text" value="Max 700 &gt; Ambient"/>	<input style="width: 40px;" type="text" value="27"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input style="width: 60px;" type="text" value="No"/>		<input style="width: 60px;" type="text" value="No"/>		<input style="width: 60px;" type="text" value="No"/>		<input style="width: 60px;" type="text" value="None"/>	
Ceiling Type	<input style="width: 150px;" type="text" value="2 x 4 Lay In"/>		<input style="width: 40px;" type="text" value="No"/>	<input style="width: 40px;" type="text" value="No"/>	<input style="width: 150px;" type="text" value="None"/>		
Wall Type	<input style="width: 150px;" type="text" value="Drywall"/>		<input style="width: 40px;" type="text" value="No"/>	<input style="width: 40px;" type="text" value="No"/>	<input style="width: 150px;" type="text" value="None"/>		
Flooring	<input style="width: 150px;" type="text" value="12 x 12 Vinyl"/>		<input style="width: 40px;" type="text" value="No"/>	<input style="width: 40px;" type="text" value="No"/>	<input style="width: 150px;" type="text" value="None"/>		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input style="width: 30px;" type="text" value="Yes"/>	<input style="width: 30px;" type="text" value="No"/>	<input style="width: 30px;" type="text" value="No"/>	<input style="width: 300px;" type="text"/>
Walls	<input style="width: 30px;" type="text" value="Yes"/>	<input style="width: 30px;" type="text" value="No"/>	<input style="width: 30px;" type="text" value="No"/>	<input style="width: 300px;" type="text"/>
Flooring	<input style="width: 30px;" type="text" value="Yes"/>	<input style="width: 30px;" type="text" value="No"/>	<input style="width: 30px;" type="text" value="No"/>	<input style="width: 300px;" type="text"/>
HVAC Supply Grills	<input style="width: 30px;" type="text" value="No"/>	<input style="width: 30px;" type="text" value="Yes"/>	<input style="width: 30px;" type="text" value="Yes"/>	<input style="width: 300px;" type="text" value="Clean as appropriate"/>
HVAC Return Grills	<input style="width: 30px;" type="text" value="No"/>	<input style="width: 30px;" type="text" value="Yes"/>	<input style="width: 30px;" type="text" value="Yes"/>	<input style="width: 300px;" type="text" value="Clean as appropriate"/>
Ceiling at Supply Grills	<input style="width: 30px;" type="text" value="No"/>	<input style="width: 30px;" type="text" value="Yes"/>	<input style="width: 30px;" type="text" value="Yes"/>	<input style="width: 300px;" type="text" value="Clean as appropriate"/>
Surfaces in Room	<input style="width: 30px;" type="text" value="No"/>	<input style="width: 30px;" type="text" value="Yes"/>	<input style="width: 30px;" type="text" value="Yes"/>	<input style="width: 300px;" type="text" value="Clean as appropriate"/>

**Observations**

**Findings**

- Dust build up on surfaces
- Dust build up on HVAC supply and return grills and ceiling at supply grills
- Slightly elevated CO2 level

**Site Based Maintenance:**

- Thoroughly clean all surfaces throughout the room
- Clean HVAC supply and return grills with Wexcide disinfectant solution and wipe down ceiling at supply grills
- Remove and replace outside air filters for all units more frequently due to irrigation work outside the classrooms.
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

**Physical Plant Operations:**

- Evaluate HVAC system for proper operation and repair as appropriate to lower CO2

- NOTE: Work orders EQ02304 and EQ02305 generated 2-23-12

# IAQ Assessment

Location Number

Parkway Middle School

Evaluation Requested

Time of Day

Evaluation Date

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="161A"/>	<input type="text" value="73.5"/>	<input type="text" value="72 - 78"/>	<input type="text" value="74.1"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="657"/>	<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" value="None"/>		
Wall Type	<input type="text" value="Drywall"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Flooring	<input type="text" value="12 x 12 Vinyl"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
HVAC Return Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Ceiling at Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Surfaces in Room	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>

## Observations

### Findings

- Dust build up on surfaces
- Dust build up on HVAC supply and return grills and ceiling at supply grills
- Humidity level elevated

### Site Based Maintenance:

- Thoroughly clean all surfaces throughout the room
- Clean HVAC supply and return grills with Wexcide disinfectant solution and wipe down ceiling at supply grills
- Remove and replace outside air filters for all units more frequently due to irrigation work outside the classrooms.
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

### Physical Plant Operations:

- Evaluate HVAC system for proper operation and repair as appropriate to lower humidity

- NOTE: Work orders EQ02304 and EQ02305 generated 2-23-12

# IAQ Assessment

Location Number

Parkway Middle School

Evaluation Requested

Time of Day

Evaluation Date

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="162"/>	<input type="text" value="68.2"/>	<input type="text" value="72 - 78"/>	<input type="text" value="55.6"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="1273"/>	<input type="text" value="Max 700 &gt; Ambient"/>	<input type="text" value="22"/>
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" value="None"/>	
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>	<input type="text" value="None"/>	<input type="text" value="None"/>
Wall Type	<input type="text" value="Drywall"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>	<input type="text" value="None"/>	<input type="text" value="None"/>
Flooring	<input type="text" value="12 x 12 Vinyl"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>	<input type="text" value="None"/>	<input type="text" value="None"/>

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
HVAC Return Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Ceiling at Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Surfaces in Room	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>

**Observations**

**Findings**

- Dust build up on surfaces
- Dust build up on HVAC supply and return grills and ceiling at supply grills
- Slightly elevated CO2 level

**Site Based Maintenance:**

- Thoroughly clean all surfaces throughout the room
- Clean HVAC supply and return grills with Wexcide disinfectant solution and wipe down ceiling at supply grills
- Remove and replace outside air filters for all units more frequently due to irrigation work outside the classrooms.
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

**Physical Plant Operations:**

- Evaluate HVAC system for proper operation and repair as appropriate to lower CO2

- NOTE: Work orders EQ02304 and EQ02305 generated 2-23-12

# IAQ Assessment

Location Number

Parkway Middle School

Evaluation Requested

Time of Day

Evaluation Date

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="167"/>	<input type="text" value="74.3"/>	<input type="text" value="72 - 78"/>	<input type="text" value="76"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="695"/>	<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="Yes"/>		<input type="text" value="No"/>		<input type="text" value="1 square foot"/>	
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="Yes"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	
Wall Type	<input type="text" value="Drywall"/>		<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	
Flooring	<input type="text" value="12 x 12 Vinyl"/>		<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Remove and replace"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
HVAC Return Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Ceiling at Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Surfaces in Room	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>

## Observations

**Findings**

- Dust build up on surfaces
- Dust build up on HVAC supply and return grills
- Humidity level elevated
- Stained ceiling tiles

**Site Based Maintenance:**

- Thoroughly clean all surfaces throughout the room
- Clean HVAC supply and return grills with Wexcide disinfectant solution
- Remove and replace outside air filters for all units more frequently due to irrigation work outside the classrooms.
- Remove and replace stained ceiling tiles as necessary.
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

**Physical Plant Operations:**

- Evaluate HVAC system for proper operation and repair as appropriate to lower humidity
- Evaluate for cause of stained ceiling tiles and repair as appropriate. Remove and replace ceiling tiles as necessary.

- NOTE: Work orders EQ02304 and EQ02305 generated 2-23-12