

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

TELEPHONE (754) 321-4200

FACSIMILE: (754) 321-4285

September 11, 2015 Signature on File

TO: Zaida Prendes, Principal
 Orange Brook Elementary

FROM: Robert Krickovich, Coordinator, LEA
 Environmental Health & Safety Department

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
<hr/>	
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On September 2, 2015, I conducted an assessment at **Orange Brook 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 754-321-4200.

- cc: Shelley Meloni, Director, Pre-Construction
 Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
 Broward Teachers Union
 Federation of Public Employees
 Gerald Devio, Supervisor II Custodial
 Benjamin Osborne, Supervisor II Custodial
 Rich Volipi, Supervisor II Custodial
 Mark Murray, Supervisor II Custodial
 Sam Bays, Director, Maintenance Operations
 Kurt Wirz, Area Manager Trades

RK/je
Enc.

IAQ Assessment

Orange Brook Elementary

Evaluation Date September 2, 2015

Time of Day 11:00 AM

Outdoor Conditions Temperature 87.5

Relative Humidity 95.8

Ambient CO2 463

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
1635	67.7	72 - 78	65.7	30% - 60%	472	MAX 700 > Ambient	2
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		No		Yes		Spotty on entire ceiling
Walls	Drywall		No		Yes		Spotty on all walls
Floor	12" x 12" Vinyl		No		No		

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	No
Flooring Clean	Yes	Ceiling at Supply Grills Clean	No		
Room Surfaces Clean	Yes				

Trash Removed	Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests	No	Drain Traps Wet	Yes	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	FISH 1641			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	Unknown ▼	Fresh Air Intake Free of Obstruction	<input type="checkbox"/>
Pollutant Sources Near Air Intake	 ▼		

Observations

Spotty microbial growth on entire ceiling - spotty microbial growth on all walls - Most likely do to water valve control not working.

Chilled water control in room 1641 disconnected in June Waiting on Parts - Minor microbial on wall in mechanical room 1641 behind AHU #5.

Corrective Actions to be Completed by Site Based Staff

	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair HVAC system as needed	▼
Repair HVAC to Reduce Humidity Levels	▼
Remove damaged wall material in 1641	▼
Replace Damaged Wall material 1641	▼
Replace entire ceiling in 1635	▼
Clean and paint all walls in 1635	▼
	▼
	▼

IAQ Assessment

Orange Brook Elementary

Evaluation Date

Time of Day

Outdoor Conditions Temperature

Relative Humidity

Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
<input type="text" value="1633"/>	<input type="text" value="66.0"/>	<input type="text" value="72 - 78"/>	<input type="text" value="69.5"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="469"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text" value="2"/>
Noticeable Odor		<input type="text" value="No"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	<input type="text" value="2' X 4' Lay in"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="1 tile"/>
Walls	<input type="text" value="Drywall"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>
Floor	<input 12"="" type="text" value="12" vinyl"="" x=""/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>

Ceiling Clean	<input type="text" value="Yes"/>	HVAC Supply Grills Clean	<input type="text" value="Yes"/>	HVAC Return Grills Clean	<input type="text" value="No"/>
Walls Clean	<input type="text" value="Yes"/>	Inside of Supply Duct Clean	<input type="text" value="Yes"/>	Inside of Return Duct Clean	<input type="text" value="No"/>
Flooring Clean	<input type="text" value="Yes"/>	Ceiling at Supply Grills Clean	<input type="text" value="Yes"/>		
Room Surfaces Clean	<input type="text" value="Yes"/>				

Trash Removed	<input type="text" value="Yes"/>	Exhaust Fans Working	<input type="text" value="Yes"/>	Unapproved Chemicals / Cleaners in Room	<input type="text" value="No"/>
Signs of Pests	<input type="text" value="No"/>	Drain Traps Wet	<input type="text" value="Yes"/>	Air Fresheners in Room	<input type="text" value="No"/>
Room Cluttered	<input type="text" value="No"/>	Food if Stored in Room is in Sealed Containers	<input type="text" value="N/A"/>		

Mechanical Equipment Location	<input type="text" value="FISH 1641"/>		Mechanical Room Clean	<input type="text" value="Yes"/>	
Filters Installed Properly	<input type="text" value="Yes"/>	Filters Clean	<input type="text" value="Yes"/>	Inside of HVAC Unit Clean	<input type="text" value="Yes"/>
Condensate Pan Clean	<input type="text" value="Yes"/>	Cooling Coil Clean	<input type="text" value="Yes"/>		

Fresh Air Intake Location	<input type="text" value="Unknown"/>	Fresh Air Intake Free of Obstruction	<input type="text"/>
Pollutant Sources Near Air Intake	<input type="text"/>		

Observations

Stained Ceiling tile above white board most likely from second floor restroom -

Chilled water control in room 1641 disconnected in June Waiting on Parts - Minor microbial on wall in mechanical room 1641 behind AHU #5.

Corrective Actions to be Completed by Site Based Staff

<input type="text"/>	<input type="text" value="v"/>
<input type="text"/>	<input type="text" value="v"/>
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<input type="text"/>	<input type="text" value="v"/>

Corrective Actions to be Completed by PPO

Evaluate and repair HVAC system as needed	<input type="text" value="v"/>
Repair HVAC to Reduce Humidity Levels	<input type="text" value="v"/>
Remove damaged wall material in 1641	<input type="text" value="v"/>
Replace Damaged Wall material 1641	<input type="text" value="v"/>
Evaluate and repair cause of stained ceiling tile	<input type="text" value="v"/>
<input type="text"/>	<input type="text" value="v"/>
<input type="text"/>	<input type="text" value="v"/>
<input type="text"/>	<input type="text" value="v"/>