

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

TELEPHONE (754) 321-4200

FACSIMILE: (754) 321-4285

November 13, 2017

Signature on File

TO: Stephen DeCotis, Principal
Sawgrass Elementary

FROM: Alison Witoszynsky, Project Manager
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
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On November 11, 2017, I conducted an assessment at **Sawgrass 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.

AW:smn

Enc.

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

Multiple Room IAQ Assessment

Sawgrass Elem. School

Evaluation Date November 9, 2017

Time of Day 1100

Outdoor Conditions Temperature 87.3

Relative Humidity 62.9

Ambient CO2 411

Fish # of rooms assessed

080, 882, 884, 871, 872, 890

Temperature Range in the Rooms Assessed was Between 69.2 And 78.8 Acceptable Range 72 - 78

Relative Humidity Range in the Rooms Assessed was Between 30.9 And 63.7 Acceptable Range 30% - 60%

Co² Range in the Rooms Assessed was between 925 And 1633 Acceptable Range MAX 700 > Ambient

Noticeable Odor	Visible water damage / staining?	Visible microbial growth?	Amount of material affected
No			
Ceiling 2' X 4' Lay in	Yes	No	
Walls Drywall	Yes	No	
Floor 12" x 12" Vinyl	No	No	

Anywhere from 0 to 20 occupants per room.
 FISH 871/872: Wet wall (~ bottom 1-2 feet) likely from driving rain through ext. wall or other crack/gap in ext.
 FISH 882: 7 ceiling tiles stained; small area of damp wall near the floor (likely from puddle that forms on floor from adjacent roof leak)
 FISH 884: roof leak, but dry wall materials FISH 890: 6 ceiling tiles
 FISH 080 (hallway): 5 ceiling tiles, damaged plaster wall

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	Yes		
Room Surfaces Clean	No				

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

The ceiling, floors and walls are generally free of dust/debris. However, each classroom had lots of paper, cardboard, other items, and a light amount of dust on shelves throughout . The volume of items is such that it is hard to access and dust from these surfaces adequately.

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HVAC System

Mechanical Equipment Location BARD in each Room

Mechanical Room Clean No

Filters Installed Properly Yes

Filters Clean Yes

Inside of HVAC Unit Clean No

Condensate Pan Clean Yes

Cooling Coil Clean No

N/A in this section = Not Accessible

Fresh Air Intake Location Exterior Wall ▼

Fresh Air Intake Free of Obstruction Yes

Pollutant Sources Near Air Intake No ▼

The AC units that feed the hallway(s) are not functional (broken compressor) or not working adequately (J827794). The hallways are very warm compared to classrooms. Generally, the classroom HVAC systems are working adequately/within ranges. However, FISH 884 appeared to be warm and have elevated CO2 and needs further evaluation. In addition, the RH was slightly elevated in FISH 871/872.

Observations

There are multiple stained ceiling tiles from likely roof leaks in classrooms and hallway with multiple outstanding work orders (J808958, J811792, J813288, H010359, JW38836, J757415). HFSP is planning to change out as soon as new ceiling tiles arrive. The drywall ceiling above the drop ceiling is also stained from water leaking through from roof. Bubbling plaster observed in upper corners of stairwell, near roof.

Occupants report water sounds in wall cavity, but current building conditions do not indicate leak within wall cavity, maybe reverberation from ext. stormwater gutter system.

The middle floor seam is showing signs of shifting with visible cracking in the floor tile in multiple rooms. Signs of shifting/settling walls (mainly hallways) are also visible with the expansion joint material missing. (JW37928, J728128).

Many of the work orders outstanding are duplicates or outstanding from 2016.

Corrective Actions to be Completed by Site Based Staff

Remove and replace stained ceiling tile	▼
If stains return, contact COMPASS for work order	▼
Thoroughly clean elevated/horizontal surfaces	▼
Ensure roof drains/gutters are free from blockage	▼
Store items in plastic containers with lids	▼
Clean around and inside Bard unit(s)	▼
Room too cluttered to clean properly	▼
Encourage occupant to reduce clutter	▼
Remove Cardboard Boxes	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair HVAC system as needed	▼
Set Temperature to 72 - 78 degrees	▼
Repair HVAC to Reduce CO2 Levels	▼
Repair HVAC to Reduce Humidity Levels	▼
Evaluate and repair cause of stained ceiling tile	▼
Install new ceiling tile upon repair, cuts needed	▼
Evaluate and repair cause of water damaged wall & ceiling material	▼
Remove And Replace Wall Material As Needed	▼
Seal/fill Expansion Joints On Interior Walls	▼
	▼
	▼
	▼