

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

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August 16, 2016

Signature on File

TO: Allen Valentine, Intern Principal
Silver Ridge 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
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On August 10, 2016, I conducted an assessment at **Silver Ridge 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.

RK:smn
Enc.

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 Volpi, Supervisor II Custodial
Mark Murray, Supervisor II Custodial
Sam Bays, Director, Maintenance Operations
Kurt Wirz, Area Manager Trades

IAQ Assessment

Silver Ridge Elementary

Evaluation Date August 10, 2016

Time of Day 12:15

Outdoor Conditions Temperature 89.8 Relative Humidity 72.7 Ambient CO2 512

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
404P	76.9	72 - 78	51.7	30% - 60%	454	MAX 700 > Ambient	2
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		Yes		No		3 tiles
Walls	Homasote / Tackboard		Yes		No		Under Both A/C units 64 Sq ft
Floor	12" x 12" Vinyl		Yes		No		10 sq ft

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes		
Room Surfaces Clean	Yes				

Trash Removed	Yes	Exhaust Fans Working	N/A	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	Wall Mounted Unit			Mechanical Room Clean	N/A
Filters Installed Properly	Yes	Filters Clean	Yes	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean	N/A	Cooling Coil Clean	N/A		

Fresh Air Intake Location	Outside of Unit ▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	None ▼		

Observations

Portable - 3 stained ceiling tiles - walls water damaged under both A/C units - floor in front of bathroom door VERY soft - Condensation / microbial growth inside of all light fixtures.

Portable should not be used until PPO can repair the floor in the portable.

Corrective Actions to be Completed by Site Based Staff

Remove and replace stained ceiling tile	▼
If stains return, contact COMPASS for work order	▼
Clean all Light fixture lenses	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair / replace floor at bathroom entry	▼
Evaluate and repair cause of stained ceiling tile	▼
Evaluate and repair cause of water damaged wall material	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Silver Ridge Elementary

Evaluation Date August 10, 2016

Time of Day 12:15

Outdoor Conditions Temperature 89.8

Relative Humidity 72.7

Ambient CO2 512

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
1166VE	86.3	72 - 78	36.5	30% - 60%	437	MAX 700 > Ambient	2
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		No		Yes		Entire restroom ceiling	
Ceiling	Homasote		No	Yes	 		
Walls	Homasote		No	No	 		
Floor	12" x 12" Vinyl		No	No	 		

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes		
Room Surfaces Clean	Yes				

Trash Removed	Yes	Exhaust Fans Working	N/A	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	Wall Mounted Unit		Mechanical Room Clean	N/A	
Filters Installed Properly	Yes	Filters Clean	Yes	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean	N/A	Cooling Coil Clean	N/A		

Fresh Air Intake Location	Outside of Unit ▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	None ▼		

Observations

Portable - Entire restroom ceiling covered with spotty microbial growth - 2 stains on ceiling in portable from roof leaks - HVAC supply grills dirty.

Portable should not be used until PPO can repair the portable.

Corrective Actions to be Completed by Site Based Staff

Clean Supply Grills with Wexcide	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Remove and replace restroom ceiling	▼
Repair roof leaks	▼
Repair HVAC / Ventilation in restroom	▼
	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Silver Ridge 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="602C"/>	<input type="text" value="81.5"/>	<input type="text" value="72 - 78"/>	<input type="text" value="60.6"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="494"/>	<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="Yes"/>		<input type="text" value="15 ceiling tiles"/>
Walls	<input type="text" value="Homasote / Tackboard"/>		<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="Yes"/>
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="Yes"/>
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="N/A"/>	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="N/A"/>	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="Wall Mounted Unit"/>			Mechanical Room Clean	<input type="text" value="N/A"/>
Filters Installed Properly	<input type="text" value="Yes"/>	Filters Clean	<input type="text" value="Yes"/>	Inside of HVAC Unit Clean	<input type="text" value="N/A"/>
Condensate Pan Clean	<input type="text" value="N/A"/>	Cooling Coil Clean	<input type="text" value="N/A"/>		

Fresh Air Intake Location	<input type="text" value="Outside of Unit"/>	Fresh Air Intake Free of Obstruction	<input type="text" value="Yes"/>
Pollutant Sources Near Air Intake	<input type="text" value="None"/>		

Observations

Portable - 3 stained ceiling tiles due to roof leaks - 12 stained ceiling tiles with microbial growth due to condensation - Temperature and humidity elevated - School based staff to replace stained ceiling tiles and call in work order to repair roof leak

Portable should not be used until PPO can evaluate the condition of the portable.

Corrective Actions to be Completed by Site Based Staff

Remove and replace stained ceiling tile	▼
If stains return, contact COMPASS for work order	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate portable - repair as needed to stop condensation	▼
Evaluate and repair cause of stained ceiling tile	▼
Repair HVAC to Reduce Humidity Levels	▼
	▼
	▼
	▼
	▼

