

**THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA**

**ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT**

**TELEPHONE (754) 321-4200**

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August 31, 2017

Signature on File

TO: Wendy Borowski, Principal  
**Silver Ridge 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 August 31, 2017, 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.

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

# IAQ Assessment

Silver Ridge Elementary

Evaluation Date August 28, 2017

Time of Day 12:15 PM

Outdoor Conditions    Temperature 90..7    Relative Humidity 63.4    Ambient CO2 438

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
803	76.9	72 - 78	61.9	30% - 60%	495	MAX 700 > Ambient	0
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
No		Yes		No		1 CT, needs cut (J815011)	
2' X 4' Lay in		No		No			
Drywall		No		No			
12" x 12" Vinyl		No		No			

Ceiling Clean	<input checked="" type="checkbox"/>	HVAC Supply Grills Clean	<input type="checkbox"/>	HVAC Return Grills Clean	<input type="checkbox"/>
Walls Clean	<input checked="" type="checkbox"/>	Inside of Supply Duct Clean	<input type="checkbox"/>	Inside of Return Duct Clean	<input type="checkbox"/>
Flooring Clean	<input checked="" type="checkbox"/>	Ceiling at Supply Grills Clean	<input type="checkbox"/>		
Room Surfaces Clean	<input checked="" type="checkbox"/>		<input type="checkbox"/>		

Trash Removed	<input checked="" type="checkbox"/>	Exhaust Fans Working	<input checked="" type="checkbox"/>	Unapproved Chemicals / Cleaners in Room	<input type="checkbox"/>
Signs of Pests	<input type="checkbox"/>	Drain Traps Wet	<input checked="" type="checkbox"/>	Air Fresheners in Room	<input type="checkbox"/>
Room Cluttered	<input checked="" type="checkbox"/>	Food if Stored in Room is in Sealed Containers	<input type="checkbox"/>		

Mechanical Equipment Location	FISH 804	Mechanical Room Clean	<input type="checkbox"/>
Filters Installed Properly	<input checked="" type="checkbox"/>	Filters Clean	<input checked="" type="checkbox"/>
Condensate Pan Clean	<input checked="" type="checkbox"/>	Cooling Coil Clean	<input type="checkbox"/>
		Inside of HVAC Unit Clean	<input checked="" type="checkbox"/>

Fresh Air Intake Location	Thru exterior wall	Fresh Air Intake Free of Obstruction	<input checked="" type="checkbox"/>
Pollutant Sources Near Air Intake	No		

**Observations**

**Classroom. Spotting on south wall upper by A/C vents reported by occupant/facilities. Grills still dusty on inside. Very limited dust on wall around supply grill.**

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**Corrective Actions to be Completed by Site Based Staff**

Room too cluttered to clean properly	▼
Encourage occupant to reduce clutter	▼
Clean dust from wall around A/C vents	▼
	▼
	▼
	▼
	▼
	▼

**Corrective Actions to be Completed by PPO**

Clean HVAC supply grills and drops	▼
Clean HVAC return grills and drops	▼
Remove and replace stained ceiling tiles	▼
Install new ceiling tile upon repair, cuts needed	▼
(J815011)	▼
Repair HVAC to Reduce Humidity Levels	▼
(J771126)	▼
	▼

# IAQ Assessment

Silver Ridge Elementary

Evaluation Date August 28, 2017

Time of Day 12:15 PM

Outdoor Conditions    Temperature 90..7    Relative Humidity 63.4    Ambient CO2 438

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
<span style="border: 1px solid black; padding: 2px;">P-404P</span>	<span style="border: 1px solid black; padding: 2px;">75.0</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">63.5</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">926</span>	<span style="border: 1px solid black; padding: 2px;">MAX 700 &gt; Ambient</span>	<span style="border: 1px solid black; padding: 2px;">0-15</span>
Noticeable Odor		<input type="checkbox"/> Yes	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	<span style="border: 1px solid black; padding: 2px;">2' X 4' Lay in</span>		<input type="checkbox"/> Yes		<input type="checkbox"/> Yes		<span style="border: 1px solid black; padding: 2px;">12 CT, light lense</span>
Walls	<span style="border: 1px solid black; padding: 2px;">Tack Board</span>		<input type="checkbox"/> Yes		<input type="checkbox"/> Yes		<span style="border: 1px solid black; padding: 2px;"></span>
Floor	<span style="border: 1px solid black; padding: 2px;">12" x 12" Vinyl</span>		<input type="checkbox"/> No		<input type="checkbox"/> No		<span style="border: 1px solid black; padding: 2px;"></span>

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

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

Mechanical Equipment Location	<span style="border: 1px solid black; padding: 2px;">Window unit</span>		Mechanical Room Clean	<input type="checkbox"/> N/A	
Filters Installed Properly	<input type="checkbox"/> Yes	Filters Clean	<input type="checkbox"/> Yes	Inside of HVAC Unit Clean	<input type="checkbox"/> Yes
Condensate Pan Clean	<input type="checkbox"/> N/A	Cooling Coil Clean	<input type="checkbox"/> Yes		

Fresh Air Intake Location	<span style="border: 1px solid black; padding: 2px;">Thru exterior wall</span> ▼	Fresh Air Intake Free of Obstruction	<input type="checkbox"/> Yes
Pollutant Sources Near Air Intake	<span style="border: 1px solid black; padding: 2px;">No</span> ▼		

**Observations**

**Classroom. A/C (2) leaking under units. East unit is ~ 3' W x 8' H; West unit is ~1.5' x 8'H. East A/C is off, West A/C is operating. Two ceiling tiles missing near center of room with light lense down and leaking from roof. Other light lenses show signs of water pooling and staining. Stained ceiling tiles observed on South edge of portable. Blinds are dusty, other surfaces have dust. Room is cluttered with books and other items. Air fresheners throughout.**

**Corrective Actions to be Completed by Site Based Staff**

Remove and replace stained ceiling tile	▼
If stains return, contact COMPASS for work order	▼
Room too cluttered to clean properly	▼
Encourage occupant to reduce clutter	▼
Thoroughly clean ALL surfaces	▼
	▼
	▼
	▼

**Corrective Actions to be Completed by PPO**

Repair HVAC to Reduce Humidity Levels	▼
Evaluate and repair cause of stained ceiling tile & stained light lenses	▼
Install new ceiling tile upon repair, cuts needed	▼
Clean light interior and lense with Wexcide	▼
Evaluate and repair cause of water damaged wall material	▼
Remove and replace wall material as needed	▼