THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

TELEPHONE (754) 321-4200 **FACSIMILE: (754) 321-4285**

February 3, 2016 Signature on File

TO: Saemone Luis, Principal
Silver Ridge Elementary

FROM: Ed See
Environmental Health & Safety Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

For Custodial Supervisor Use Only

☐ Custodial Issues Addressed

☐ Custodial Issues Not Addressed

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On February 2, 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.

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

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Enc.

IAQ Assessment

Silver Ridge Elementary | **Evaluation Date** February 2, 2016 | **Time of Day** 10:30 AM

Outdoor Conditions **Temperature** 77.8 **Relative Humidity** 88.0 **Ambient CO2** 430

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
205	72.9	72 - 78	80.7	30% - 60%	812	MAX 700 > Ambient	4

Noticeable Odor No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	Yes	Yes	Door 25sq ft
Floor	12" x 12" Vinyl	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	No
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	No				

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	211			Mechanical Room Clean	No
Filters Installed Properly	Yes	Filters Clean	Yes	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean	No	Cooling Coil Clean	Yes		

Fresh Air Intake Location	Door and Louvers	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	None		

Observations

Visible microbial growth on four teaching props, and on back of doors in 205, 205A, and 205B.

Corrective Actions to be Completed by Site Based Staff

- Monitor and wipe with wexcide
- Wipe teaching props with wexcide

Corrective Actions to be Completed by PPO

- Repair HVAC to reduce Humidity levels

IAQ Assessment

Silver Ridge Elementary | Evaluation Date: February 2, 2016 | Time of Day: 10:10 AM

Outdoor Conditions Temperature: 77.8 | Relative Humidity: 88.0 | Ambient CO2: 430

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
201	72.2	72 - 78	84.5	30% - 60%	773	MAX 700 > Ambient	10

Noticeable Odor: Yes

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	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	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	211			Mechanical Room Clean	Yes
Filters Installed Properly	Yes	Filters Clean	Yes	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean	No	Cooling Coil Clean	Yes		

Fresh Air Intake Location	Door and Louvers	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	None		

Observations

Visible microbial growth on doors in FISH 202, 203, and 204.
FISH 211- Wall wet due to HVAC Leak

Corrective Actions to be Completed by Site Based Staff

- Clean doors 202, 203, and 204 with wexcide

Corrective Actions to be Completed by PPO

- Evaluate and repair HVAC system as needed
- Repair HVAC to reduce Humidity levels
- FISH 211 Remove and replace water damage wall
- FISH 211 Repair HVAC leak

IAQ Assessment

Silver Ridge Elementary | Evaluation Date: February 2, 2016 | Time of Day: 11:00 AM

Outdoor Conditions Temperature: 77.8 | Relative Humidity: 88.0 | Ambient CO2: 430

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
133	89.6	72 - 78	79.3	30% - 60%	865	MAX 700 > Ambient	3

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	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	Yes	Unapproved Chemicals / Cleaners in Room	Yes
Signs of Pests	No	Drain Traps Wet	Yes	Air Fresheners in Room	Yes
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	Yes		

Mechanical Equipment Location				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	Door and Louvers	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	None		

Observations

2 Plants

Corrective Actions to be Completed by Site Based Staff

- Remove plants
- Remove air freshener

Corrective Actions to be Completed by PPO

- Repair HVAC to reduce humidity level

IAQ Assessment

Silver Ridge Elementary | **Evaluation Date** February 2, 2016 | **Time of Day** 10:45 AM

Outdoor Conditions **Temperature** 77.8 **Relative Humidity** 88.0 **Ambient CO2** 430

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
101	75.1	72 - 78	72.2	30% - 60%	428	MAX 700 > Ambient	12

Noticeable Odor No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	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	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				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	Door and Louver	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	None		

Observations

Corrective Actions to be Completed by Site Based Staff

Corrective Actions to be Completed by PPO

	Repair HVAC to reduce Humidity levels

IAQ Assessment

Silver Ridge Elementary | Evaluation Date: February 2, 2016 | Time of Day: 10:00 AM

Outdoor Conditions Temperature: 77.8 | Relative Humidity: 88.0 | Ambient CO2: 430

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
007	73.8	72 - 78	81.0	30% - 60%	850	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	No	
Walls	Drywall	Yes	Yes	Door 25 sq ft
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	211			Mechanical Room Clean	No
Filters Installed Properly	Yes	Filters Clean	Yes	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean	No	Cooling Coil Clean	Yes		

Fresh Air Intake Location	Door and louver	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	None		

Observations

Visible microbial growth on door.

Corrective Actions to be Completed by Site Based Staff

- Thoroughly clean door with wexcide
- Monitor for return

Corrective Actions to be Completed by PPO

- Evaluate and Repair HVAC to reduce Humidity levels

IAQ Assessment

Silver Ridge Elementary | Evaluation Date: February 2, 2016 | Time of Day: 11:20 AM

Outdoor Conditions Temperature: 77.8 | Relative Humidity: 88.0 | Ambient CO2: 430

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
707	76.0	72 - 78	82.5	30% - 60%	903	MAX 700 > Ambient	4

Noticeable Odor: No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	Yes	No	5 Ceiling Tiles
Walls	Drywall	No	No	
Floor	12" x 12" Vinyl	No	No	

Ceiling Clean	No	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	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	Yes		

Mechanical Equipment Location				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	Door and Louvers	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	None		

Observations

Active roof leak.

Corrective Actions to be Completed by Site Based Staff

- Monitor and change Remove and replace stained ceiling tiles

Corrective Actions to be Completed by PPO

- Repair HVAC to reduce Humidity levels
- Evaluate and repair roof leak