RISK
MANAGEMENT…

managing risk with responsibility

Aston A. Henry, Director
Risk Management Department

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October 7, 2014 Signature on File

For Custodial Supervisor Use Only

☐ Custodial Issues Addressed

☐ Custodial Issues Not Addressed

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TO: Amada Walker, Principal
Silver Palms Elementary School

FROM: Richard Rosa, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

On October 3, 2014, I conducted an assessment at **Silver Palms 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 754-321-1907.

cc: Shelley Meloni, Executive Director, Facilities & Construction
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division
Aston Henry, Director, Risk Management
Sonja Coley, Senior Project Manager, Facilities & Construction
Broward Teachers Union
Federation of Public Employees

RR/tc
Enc.

IAQ Assessment

Silver Palms Elementary | Evaluation Date: October 3, 2014 | Time of Day: 1:00

Outdoor Conditions Temperature: 82.9 | Relative Humidity: 82.3 | Ambient CO2: 466

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
116	73.7	72 - 78	45.8	30% - 60%	1067	MAX 700 > Ambient	

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	2' X 4' Lay in	Yes	No	< 2 sq ft
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	No		
Room Surfaces Clean	No				

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

Mechanical Equipment Location	FISH 196			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Rodents		

Observations

Cause of stained ceilings are due to either ongoing roofing issues, fire sprinkler leaks or HVAC lines above the drop ceiling. I was told by the instructor that a few rooms were closed down last week due to the smell of a dead rat above the drop ceiling. I advised the instructor to remove the black construction paper from the tack board behind her desk as paper retains moisture.

Corrective Actions to be Completed by Site Based Staff

- Replace stained ceiling tiles after repairs
- Thoroughly clean horizontal surfaces
- Clean ceilings around HVAC supply grills
- Coordinate a schedule between HFSP and classroom Instructor to clean properly due to clutter

Corrective Actions to be Completed by PPO

- Evaluate and repair cause of stained ceiling tiles
- Clean and re-caulk under window sills

IAQ Assessment

Silver Palms Elementary | Evaluation Date: October 3, 2014 | Time of Day: 1:30

Outdoor Conditions Temperature: 82.9 | Relative Humidity: 82.3 | Ambient CO2: 466

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
118	73.4	72 - 78	43.2	30% - 60%	1013	MAX 700 > Ambient	

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	2' X 4' Lay in	Yes	No	< 1 sq ft
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	No		
Room Surfaces Clean	Yes				

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

Mechanical Equipment Location	FISH 196			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Rodents		

Observations

Cause of stained ceilings are due to either ongoing roofing issues, fire sprinkler leaks or HVAC lines above the drop ceiling. I was told by the instructor that a few rooms were closed down last week due to the smell of a dead rat above the drop ceiling.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
Replace stained ceiling tiles after repairs	Evaluate and repair cause of stained ceiling tiles
Clean ceilings around HVAC supply grills	

IAQ Assessment

Silver Palms Elementary | Evaluation Date: October 3, 2014 | Time of Day: 1:45

Outdoor Conditions Temperature: 82.9 | Relative Humidity: 82.3 | Ambient CO2: 466

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
120	73.9	72 - 78	47	30% - 60%	1294	MAX 700 > Ambient	22

Noticeable Odor: No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	Yes	No	< 1 sq ft
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	No		
Room Surfaces Clean	No				

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

Mechanical Equipment Location	FISH 196			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Rodents		

Observations

Cause of stained ceilings are due to either ongoing roofing issues, fire sprinkler leaks or HVAC lines above the drop ceiling. I was told by the instructor that a few rooms were closed down last week due to the smell of a dead rat above the drop ceiling. Repair drywall and back splash by windows, evaluate cause of damage.

Corrective Actions to be Completed by Site Based Staff

- Replace stained ceiling tiles after repairs
- Clean ceilings around HVAC supply grills
- Thoroughly clean horizontal surfaces

Corrective Actions to be Completed by PPO

- Evaluate and repair cause of stained ceiling tiles
- Evaluate cause of water damage by windows
- interior and exterior
- Remove and replace wall material as necessary

IAQ Assessment

Silver Palms Elementary | Evaluation Date: October 3, 2014 | Time of Day: 2:00

Outdoor Conditions Temperature: 82.9 | Relative Humidity: 82.3 | Ambient CO2: 466

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
123	74.1	72 - 78	47.3	30% - 60%	1294	MAX 700 > Ambient	0

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	No		
Room Surfaces Clean	No				

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

Mechanical Equipment Location	FISH 196			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Rodents		

Observations

I was told by the instructor that a few rooms were closed down last week due to the smell of a dead rat above the drop ceiling. Evaluate areas in the mechanical room for areas that would allow access for rodents to enter into interior of school, above ductwork, below the roof cap and around conduits penetrating through block walls, etc.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
Thoroughly clean horizontal surfaces	Evaluate for breeches in Mechanical room
Clean ceilings around HVAC supply grills	entering into classroom areas