THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

FACSIMILE: (754) 321-4285

TELEPHONE (754) 321-4200

May 8, 2017	Signature on File	For Custodial Supervisor Use Only
TO:	Janet Phelps, Principal Pasadena Lakes Elementary	Custodial Issues Addressed Custodial Issues Not Addressed
FROM:	Alison Witoshynsky, Project Manager Environmental Health & Safety Department	
SUBJECT:	Indoor Air Quality (IAQ) Assessment	

On May 5, 2017, I conducted an assessment at **Pasadena Lakes 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: 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

Mark Murray, Supervisor II Custodial

Sam Bays, Director, Maintenance Operations

Kurt Wirz, Area Manager Trades

Pasadena	Lakes Elemer	<u>ntary</u> Evalua	tion Da	May 5, 2	2017	Time of Day1	000
Outdoor Conditions Te	mperature	79.3	Relativ	e Humidity	93.4	Ambient CO2 4	75
Fish Temperature 128/129 68.7	Range 72 - 78	Relative Humid	- i	Range 0% - 60%	CO 736		cupants 0
Noticeable Odor No)	Visible water dama	age /	Visible microgrowth?		Amount of material affected	
Ceiling 2' X 4' Lay ir	n l	No		No			
Walls Drywall		No		No			
, ,							
Floor concrete		No		No			
Ceiling Clean Yes]	HVAC Supp Grills Clear		No		HVAC Return Grills Clean	N/a
Walls Clean Yes Flooring Clean Yes	l]	Inside of So Duct Clean		Yes		Inside of Return Duct Clean	N/A
Room Surfaces No Clean		Ceiling at S Grills Clear		Yes			
Trash Removed Yes		Exhaust Fans W	orking	N/A		Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No		Drain Tra	os Wet	N/A			
Room Cluttered Yes	I	Food if Stored in R in Sealed Containe		N/A		Air Fresheners in Room	No
Mechanical Equipment Loc	ation Roof	top not readily ac	cessil	ole		Mechanical Room Clean	N/A
Filters Installed Properly	N/A	Filters	Clean	N/A		Inside of HVAC Unit Clean	N/A
Condensate Pan Clean	N/A	Cooling Coil	Clean	N/A			
Fresh Air Intake Location	Roof	top			▼	Fresh Air Intake Free of Obstruction	N/A
Pollutant Sources Near Air Intake	Not re	eadily accessible			▼	or obstruction	
Observations							
IAQ RESPONSE PROTOCO	DL NOT COM	IPLETED PRIOR	TO AR	RIVAL.			
PE coach office and storag	_	ccupant reported	visible	e mold on walls	, but cl	eaned prior to arrival. Lots	of
Corrective Actions to be (Completed by	y Site Based Staf	f	Correctiv	/e Actio	ons to be Completed by PF	0
Thoroughly cle	an ALL surfa	ices	7			ture to 72 - 78 degrees	▼
Encourage occupa	ent to reduce	clutter		Repair H	VAC to	Reduce Humidity Levels	▼
Clean HVAC Supply	Grills with V	Wexcide \	<u></u>				▼
Remove and re	•		┥				▼
Tape and dat	e HVAC filter	rs 🔻	7				▼

Remove cardboard boxes

Store items in plastic containers with lids

Pasadena Lakes Elementary	valuation Da	May 5, 2017	Time of Day1000	
Outdoor Conditions Temperature 79.3	Relativ	re Humidity 93.4	Ambient CO2 475	
Fish Temperature Range Relative In the late of the l		Range Co	Range # Occupa MAX 700 > ~25 Ambient	
Noticeable Odor No Visible water staining		Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in No		No		
Walls Drywall No	_ 	No		
Flace (40" v 40" V in vi	⊿ ¬			二 l
Floor 12" x 12" Vinyl No		No		
	Supply Clean	No	HVAC Return Grills Clean	lo
Inside	of Supply	Yes	Inside of Return	
Flooring Clean Yes Duct	Clean	165	Duct Clean N	<u> </u>
	g at Supply Clean	No		
Trash Removed Yes Exhaust Fa	ns Working	Yes	Unapproved Chemicals / Cleaners in Room	lo
Signs of Pests No Drai	n Traps Wet	Yes		_
Room Cluttered No Food if Store in Sealed Cor		N/A	Air Fresheners N in Room	lo
Mechanical Equipment Location Roof top not reac	lily accessil	ble	Mechanical Room Clean N	/A
Filters Installed Properly N/A F	ilters Clean	N/A	Inside of HVAC Unit Clean	/A
Condensate Pan Clean N/A Cooling	g Coil Clean	N/A		
Fresh Air Intake Location Roof top		▼	Fresh Air Intake Free of Obstruction	/A
Pollutant Sources Near Air Intake Not readily acces	sible	▼		
Observations				
IAQ RESPONSE PROTOCOL NOT COMPLETED PR	IOR TO AR	ΡΙΛΝ		
THE TAX CONTRACT TO THE PROPERTY OF THE PROPER				
Room is being used by two teachers, including oc	cupant of F	ISH 134.		
Corrective Actions to be Completed by Site Based	Staff	Corrective Act	ions to be Completed by PPO	
Clean dust from ceiling tiles or replace	▼		tile upon repair, cuts needed	▼
Clean HVAC Return/Supply Grill with Wexcide	▼		ature to 72 - 78 degrees	▼
Remove return grill and vacuum	▼		o Reduce Humidity Levels	▼
Thoroughly clean horizontal & elevated surfaces	5 ▼			▼

Pasadena Lake	es Elementary Evaluation Da	te May 5, 2017	Time of Day1000
Outdoor Conditions Tempo	erature 79.3 Relative	e Humidity 93.4	Ambient CO2 475
		Range CO ² 762	Range # Occupants MAX 700 > 0 Ambient
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling 2' X 4' Lay in/Drywal	Yes	Yes	~ 10 SF of Drywall, 20 tiles
Walls Drywall	No	No	
Floor 12" x 12" Vinyl	No	No	
Ceiling Clean No	HVAC Supply Grills Clean	No	HVAC Return Grills Clean
Walls Clean Yes Flooring Clean No	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean N/A
Room Surfaces No Clean	Ceiling at Supply Grills Clean	No	
Trash Removed Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room
Signs of Pests No	Drain Traps Wet	Yes	
Room Cluttered Yes	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners No in Room
Mechanical Equipment Locatio	n Roof top not readily accessib	ole	Mechanical Room Clean N/A
Filters Installed Properly	/A Filters Clean	N/A	Inside of HVAC Unit Clean N/A
Condensate Pan Clean N	/A Cooling Coil Clean	N/A	
Fresh Air Intake Location	Roof top	▼	Fresh Air Intake Free of Obstruction
Pollutant Sources Near Air Intake	Not readily accessible	▼	oi Obstruction
Observations			

IAQ RESPONSE PROTOCOL NOT COMPLETED PRIOR TO ARRIVAL. Active Roof Leak within FISH 134 (back portion of wall) and in adjacent hallway FISH 008. Multiple ceiling tiles wet, stained, missing. Water damage and visible mold on drywall ceiling above missing ceiling tiles. Puddles of water on the floor and storage cabinet counters. All supply registers dusty, all ceiling tiles surrounding supply register dusty. Return register dusty. Single ceiling tile at front of classroom. Carpet in center of room needs vacuuming and deep cleaning during summer. FISH 136A has stained ceiling tile and a missing ceiling tile at back or room needing replacement.

Corrective Actions to be Completed by Site Based Staff

Consolive / tollene to 20 completed by Olio Bacoa Clair			
Thoroughly clean ALL surfaces	▼		
Encourage occupant to reduce clutter	▼		
Clean HVAC Return & Supply Grills with Wexcide	▼		
Remove and replace A/C Filters	▼		
Tape and date HVAC filters	•		
	▼		
	▼		
	▼		

Corrective Actions to b	e Completed	by PPO
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Corrective Actions to be completed by 110	
Set Temperature to 72 - 78 degrees	▼
Repair HVAC to Reduce Humidity Levels	•
Evaluate and repair cause of water damaged	▼
(drywall and ceiling tiles)	•
Install new ceiling tiles upon repair, cuts needed	•
	•
	▼
	▼

Pasadena Lakes Elementary	Evaluation Da	May 5, 2017	Time of Day1000	
Outdoor Conditions Temperature 79.3	Relative	e Humidity 93.4	Ambient CO2 475	
		Range CO ² % - 60%		ants
	ter damage / ning?	Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in/Drywall Ye	es	No	6 tiles	
Walls Drywall N	lo	No		
	lo	No		\neg
		<u> </u>		
Gri	AC Supply lls Clean	No	HVAC Return Grills Clean	lo
	ide of Supply ct Clean	Yes	Inside of Return Duct Clean	/A
	ling at Supply lls Clean	No		
Trash Removed Yes Exhaust	Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	lo
Signs of Pests No Di	rain Traps Wet	Yes		
Room Cluttered Yes Food if Sto in Sealed C	red in Room is Containers	N/A	Air Fresheners N in Room	lo
Mechanical Equipment Location Roof top not re	adily accessib	le	Mechanical Room Clean N	/A
Filters Installed Properly N/A	Filters Clean	N/A	Inside of HVAC Unit Clean N	/A
Condensate Pan Clean N/A Cooli	ng Coil Clean	N/A		
Fresh Air Intake Location Roof top		▼	Fresh Air Intake Free of Obstruction	/A
Pollutant Sources Near Air Intake	essible	▼	of Obstruction	
Observations				
IAQ RESPONSE PROTOCOL NOT COMPLETED I	PRIOR TO ARE	RIVAL.		
Kitchen. Multiple stained ceiling tiles throughou	t front area of	serving line.		
Corrective Actions to be Completed by Site Base	ed Staff	Corrective Actio	ns to be Completed by PPO	
Remove and replace A/C Filters	▼		ure to 72 - 78 degrees	▼
Tape and date HVAC filters	▼		Reduce Humidity Levels	▼
	▼		ir cause of water damaged	▼
			ing material	▼
		Install new ceiling t	ile upon repair, cuts needed	▼

Pasadena Lake	s Elementary Evaluation Date	te May 5, 2017	Time of Day 10	45
Outdoor Conditions Tempe	rature 793 Relative	Humidity 93.4	Ambient CO2 475	5
		Range <u>CO</u> ² % - 60 %	Range # Occ MAX 700 > Ambient	supants 8
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in Walls Drywall/Tackboard	No No	No No		
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean No Walls Clean Yes	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	No
Flooring Clean No	Inside of Supply Duct Clean	No	Inside of Return Duct Clean	N/A
Room Surfaces No Clean	Ceiling at Supply Grills Clean	No		
Trash Removed No	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No	Drain Traps Wet	Yes	Air Fresheners	No.
Room Cluttered Yes	Food if Stored in Room is in Sealed Containers	N/A	in Room	No
Mechanical Equipment Location	FISH 211		Mechanical Room Clean	No
Filters Installed Properly Ye	Filters Clean	No	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean N	Cooling Coil Clean	Yes		
Fresh Air Intake Location	Thru exterior wall	▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No	▼	or obstruction	
Observations				
IAQ RESPONSE PROTOCOL N	OT COMPLETED PRIOR TO ARE	RIVAL.		

Teacher reports sickness over many months. Ceiling tiles throughout room are bowed and dusty at the Supply grill.

The floor is dirty and teacher reports that it has not been moped/cleaned regularly, only sweeping. Interior of cabinets are dusty. Room is cluttered especially the back storage room which includes cardboard boxes. Trash was full, but likely from days activities. There was some staining on the wall next to the trash can.

Corrective Actions to be Completed by Site Based Staff

<u> </u>	
Clean dust from ceiling tiles or replace	▼
Remove return grills and vacuum	▼
Clean HVAC Return/Supply Grill with Wexcide	▼
Encourage occupant to reduce clutter	▼
Remove cardboard boxes, store items in plastic	▼
Sweep floor in the mechanical room	▼
Thoroughly clean ALL surfaces	▼
Thoroughly clean and sanitize flooring	▼

Corrective Actions to be Completed by PPO

Corrective Actions to be completed by 1.1.5	
Set Temperature to 72 - 78 degrees	▼
Repair HVAC to Reduce Humidity Levels	▼
Install new ceiling tile upon repair, cuts needed	▼
Vacuum/Clean HVAC supply grills and drops	▼
	▼
	▼
	▼
	▼

Pasadena Lakes I	Elementary Evaluation Dat	May 5, 2017	Time of Day1	030
Outdoor Conditions Tempera	ture 793 Relative	Humidity 93.4	Ambient CO2 4	75
		Range <u>CO</u> % - 60% 553		ccupants 1
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in Walls Drywall	Yes	No	2 ceiling tiles, painted	over
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean Yes Walls Clean Yes	HVAC Supply Grills Clean Inside of Supply	No No	HVAC Return Grills Clean Inside of Return	Yes
Flooring Clean Yes	Duct Clean		Duct Clean	Tes
Room Surfaces No Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No Room Cluttered Yes	Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes N/A	Air Fresheners in Room	No
Mechanical Equipment Location	HVAC system is recessed in o	drop ceilng	Mechanical Room Clean	N/A
Filters Installed Properly Yes	Filters Clean	No	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Fresh Air Intake Location	Roof top	▼	Fresh Air Intake Free of Obstruction	N/A
Pollutant Sources Near Air Intake	Not readily accessible	▼	or obstruction	
Observations				
Occupant reports sinus infection	/sickness for multiple weeks.	Occupant also report	ts that the filters have not	been

Occupant reports sinus infection/sickness for multiple weeks. Occupant also reports that the filters have not been changed since Oct/Nov.; however this could not be visually confirmed or corroborated by HFSP. The bottom of the vinyl room divider is dirty/stained. HFSP reports they previously cleaned with Wexcide. Two ceiling tiles (1 near clock in corner and one on other side of room) were stained and painted over. Lots of loose papers, carboard boxes, and other teaching aids out. Area carpet appears clean, but if not needed should be removed from space.

Corrective Actions to be Completed by Site Based Staff

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Remove and replace stained ceiling tile	▼
If stains return, contact COMPASS for work order	▼
Thoroughly clean elevated/horizontal surfaces	▼
Encourage occupant to reduce clutter	▼
Remove cardboard boxes	▼
Remove and replace A/C Filters	▼
Date the filters properly	▼
Consider removing area carpet if not using	T▼

Corrective Actions to be Completed by PPO

Contour to notice to be completed by 110	
Set Temperature to 72 - 78 degrees	▼
Repair HVAC to Reduce Humidity Levels	▼
	▼
	▼
	▼
	▼
	▼
	▼