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

FACSIMILE: (754) 321-4285

TELEPHONE (754) 321-4200

May 20, 2016	Signature on File	For Custodial Supervisor Use Only
TO:	Stephen Frazier, Principal Silver Trail Middle	Custodial Issues Addressed Custodial Issues Not Addressed
FROM:	Robert Krickovich, Coordinator, LEA Environmental Health & Safety Department	
SUBJECT:	Indoor Air Quality (IAQ) Assessment	

On May 18, 2016, I conducted an assessment at **Silver Trail Middle 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

Silver Trail Middle	School	Evaluat —	tion Date	May 18	8, 2016	Time of Day	12:00
Outdoor Conditions Te	mperature	93.4 R	Relative	Humidity [75.2	Ambient CO2	470
Fish Temperature 139 72.8	Range 72 - 78	Relative Humidi 53.9	<u> </u>	ange 3 - 60%	CO ² 566	Range # 0 MAX 700 > Ambient	Occupants 6
Noticeable Odor No	v	isible water dama staining?	ige /	Visible mi		Amount of material affected	
Ceiling 2' X 4' Lay in	ı	Yes		No		10 Stained	
Walls Drywall		No		No			
Floor 12" x 12" Viny		Yes		No		20Sq Ft Stained	
Ceiling Clean Yes Walls Clean Yes		HVAC Supp Grills Clean	1	Yes		HVAC Return Grills Clean	No
Flooring Clean Yes		Inside of Su Duct Clean	рріу	Yes		Inside of Return Duct Clean	Yes
Room Surfaces No Clean		Ceiling at S Grills Clean		Yes			
Trash Removed Yes		Exhaust Fans Wo	_	N/A		Unapproved Chemicals /	No
Signs of Pests No Room Cluttered No		Drain Trap ood if Stored in Ro Sealed Container	oom is	N/A		Air Fresheners in Room	No
Mechanical Equipment Loc	ation FISH 20	03				Mechanical Room Clean	Yes
Filters Installed Properly	Yes	Filters (Clean	Yes	I	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean	Yes	Cooling Coil (Clean	Yes	N/A	A in this section = Not Acc	cessible
Fresh Air Intake Location Pollutant Sources Near Air Intake	Roof to	pp				Fresh Air Intake Free of Obstruction	Yes
Observations							
Media Center Heavy dust on shelves - minor dust on books - 10 Stained Ceiling Tiles - 1 missing ceiling tile - Carpet stained center of room due to roof leak - Ongoing roofing problems past 3 years - Ceiling tiles stained / missing throughout facility due to roof leaks.							
FACILITIES & CONSTRUCTION to expedite roofing replacement project							
Corrective Actions to be Completed by Site Based Staff Corrective Actions to be Completed by PPO							
Thoroughly clea			→ ⊢	Pr		ool with ceiling tiles	▼
Clean HVAC Return			⊣ ⊢		Repa	ir roof leaks	▼
Remove and replac	e stained ceili		⊣ ⊢				▼
	mig centilia ille	; ▼					▼

FACILITIES & CONSTRUCTION DIVISION expedite roofing replacement project

Silver Trail Middle School Eva	aluation Date May	18, 2016 Time of Day	12:00			
Outdoor Conditions Temperature 93.4	Relative Humidity	75.2 Ambient CO2	470			
Fish Temperature Range Relative Hu 182 71.7 72 - 78 65.8	midity Range 30% - 60%	CO ² Range # 6 1146 MAX 700 > Ambient	Occupants 21			
Noticeable Odor No Visible water d						
Ceiling 2' X 4' Lay in No	N	0				
Walls Drywall No	N	0				
Floor 12" x 12" Vinyl No	N	0				
Ceiling Clean Yes HVAC S		HVAC Return Grills Clean	Yes			
Walls Clean Yes Inside of Duct Clean	of Supply Yes	Inside of Return Duct Clean	Yes			
Room Surfaces No Ceiling Clean Grills C	at Supply lean Yes					
Trash Removed Yes Exhaust Fans		Unapproved Chemicals Cleaners in Room	/ No			
Signs of Pests No Drain Room Cluttered No Food if Stored in Sealed Conta	I NI/A	Air Fresheners in Room	No			
Mechanical Equipment Location FISH 178		Mechanical Room Clear	Yes			
Filters Installed Properly Yes Filter	ers Clean Yes	Inside of HVAC Unit Clear	n Yes			
Condensate Pan Clean Yes Cooling C	Coil Clean Yes	N/A in this section = Not Ac	ccessible			
Fresh Air Intake Location Roof top		Fresh Air Intake Free of Obstruction	Yes			
Pollutant Sources Near Air Intake						
Observations						
Minor dust on environmental surfaces - Humidity Sli	ghtly Elevated - CO2 I	_evels slightly elevated.				
Ceiling tiles stained / missing throughout facility due to roof leaks. FACILITIES & CONSTRUCTION to expedite roofing replacement project						
Corrective Actions to be Completed by Site Based S	Staff Corre	ective Actions to be Completed by	PPO			
Thoroughly clean horizontal surfaces	▼ Repa	ir HVAC to Reduce Humidity Level	s ▼			
	▼	Repair HVAC to reduce CO2				
	 	e and repair HVAC system as need				
	▼		▼			

Silver Trail Middle School Eval	luation Dat	te May 1	8, 2016	Time of Day	12:00
Outdoor Conditions Temperature 93.4	Relativo	e Humidity [75.2	Ambient CO2	170
Fish Temperature Range Relative Hun 183 72.4 72 - 78 64.4	 i	Range % - 60%	1108	Range # O MAX 700 > Ambient	ccupants 21
Noticeable Odor No Visible water da staining?		Visible mi growt		Amount of material affected	
Ceiling 2' X 4' Lay in Yes		No		3 Stained	
Walls Drywall No		No			
Floor 12" x 12" Vinyl No		No			
Ceiling Clean Yes HVAC Su Grills Clean		Yes		HVAC Return Grills Clean	Yes
Flooring Clean Yes Inside of Duct Cle		Yes		Inside of Return Duct Clean	Yes
Room Surfaces No Ceiling a Grills Clean	at Supply ean	No			
Trash Removed Yes Exhaust Fans		N/A		Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No Drain T Room Cluttered No Food if Stored in Sealed Contain		N/A		Air Fresheners in Room	No
Mechanical Equipment Location FISH 178				Mechanical Room Clean	Yes
Filters Installed Properly Yes Filter	rs Clean	Yes	I	nside of HVAC Unit Clean	Yes
Condensate Pan Clean Yes Cooling Co	oil Clean	Yes	N/A	A in this section = Not Acc	essible
Fresh Air Intake Location Roof top Pollutant Sources Near Air				Fresh Air Intake Free of Obstruction	Yes
Intake None					
Observations					
3 stained ceiling tiles - Minor dust on environmental s Slightly Elevated - CO2 Levels slightly elevated.	surfaces -	· Ceiling tiles	at HVAC S	Supply grills dusty - Hun	nidity
Ceiling tiles stained / missing throughout facility due replacement project	to roof le	aks. FACILIT	TIES & CON	ISTRUCTION to expedit	e roofing
Corrective Actions to be Completed by Site Based St				s to be Completed by P	
Thoroughly clean horizontal surfaces	▼			Reduce Humidity Levels	
Clean ceilings around HVAC supply grills Remove and replace stained ceiling tile	 ▼ 			AC to reduce CO2 HVAC system as neede	ed ▼
Nemove and replace stained centing the	╁	Lvaiuale		ir roof leaks	au ▼
	 		Пори		<u> </u>

FACILITIES & CONSTRUCTION DIVISION expedite roofing replacement project

Silver Trail Middle School Eval	Iluation Date May 18, 2016 Time of Day 12:00
Outdoor Conditions Temperature 93.4	Relative Humidity 75.2 Ambient CO2 470
Fish Temperature Range Relative Hum 184 73.6 72 - 78 57.7	midity Range <u>CO</u> ² Range # Occupants 30% - 60% 1004 MAX 700 > 14 Ambient
Noticeable Odor No Visible water da staining?	
Ceiling 2' X 4' Lay in Yes	No 2 Stained - 1 Missing
Walls Drywall No	No
Floor 12" x 12" Vinyl No	No No
Ceiling Clean Yes HVAC Su	
Walls Clean Yes	
Flooring Clean Yes Inside of Duct Clea	··· YAS Vaa
Room Surfaces No Ceiling at Clean Grills Cle	
Trash Removed Yes Exhaust Fans	Working N/A Unapproved Chemicals / Cleaners in Room No
Signs of Pests No Drain Tr	Traps Wet N/A
Room Cluttered No Food if Stored in in Sealed Contain	III KOOIII
Mechanical Equipment Location FISH 178	Mechanical Room Clean Yes
Filters Installed Properly Yes Filter	ers Clean Yes Inside of HVAC Unit Clean Yes
Condensate Pan Clean Yes Cooling Co	oil Clean Yes N/A in this section = Not Accessible
Fresh Air Intake Location Roof top	Fresh Air Intake Free of Obstruction Yes
Pollutant Sources Near Air None	of Obstruction Tes
Observations Profile	
	e cans on top of bookcases to catch water from roof leaks -
Minor dust on environmental surfaces - Ceiling tiles a	•
Ceiling tiles stained / missing throughout facility due replacement project	to roof leaks. FACILITIES & CONSTRUCTION to expedite roofing
Corrective Actions to be Completed by Site Based St	taff Corrective Actions to be Completed by PPO
Thoroughly clean horizontal surfaces	▼ Repair roof leaks ▼
Clean ceilings around HVAC supply grills	▼ ▼
Remove and replace stained ceiling tile	<u> </u>
	▼ FACILITIES & CONSTRUCTION DIVISION ▼
	▼ expedite roofing replacement project ▼

Silver Trail M	iddle School	Eva	luation Date	May 1	8, 2016	Time of Day	12:00
Outdoor Conditions	Temperature	93.4	Relative l	-lumidity [75.2	Ambient CO2	470
Fish Tempe 159 72		Relative Hui	 i	ange - 60%	CO ² 1425	Range # (MAX 700 > Ambient	Occupants 22
Noticeable Odor	No	Visible water da		Visible m grow		Amount of material affected	
Ceiling 2' X 4'	Lay in	No		No			
Walls Dryv	wall	No		No			
Floor 12" x 12	" Vinyl	No		No			
Ceiling Clean	Yes	HVAC S Grills Cl		Yes		HVAC Return Grills Clean	Yes
Walls Clean	Yes		f Supply	Yes		Inside of Return	Vac
Flooring Clean	Yes	Duct Cle	ean	103		Duct Clean	Yes
Room Surfaces Clean	Yes	Ceiling a Grills Cl	at Supply ean	No			
Trash Removed	Yes	Exhaust Fans	Working	N/A		Unapproved Chemicals	/ No
Signs of Pests	No	Drain 1	raps Wet	Yes		Air Fresheners	No
Room Cluttered		Food if Stored in Sealed Conta		N/A		in Room	No
Mechanical Equipmer	nt Location FISH	151				Mechanical Room Clean	Yes
Filters Installed Proper	rly Yes	Filte	rs Clean	Yes	1	Inside of HVAC Unit Clean	Yes
Condensate Pan Cl	ean Yes	Cooling C	oil Clean	Yes	N//	A in this section = Not Ac	cessible
Fresh Air Intake Locati	on Roof	top				Fresh Air Intake Free	Yes
Pollutant Sources Nea Intake	r Air None)				of Obstruction	
Observations							
Science Lab 10 sinks	- Traps wet at tin	ne of assessm	ent - Humid	ity elevated	d - CO2 lev	els slightly elevated.	
Ceiling tiles stained / replacement project	missing through	out facility due	to roof leal	s. FACILI	TIES & CON	ISTRUCTION to expedi	te roofing
Corrective Actions to	he Completed h	v Sita Rasad S	taff	Corre	ativo Aatios	ns to be Completed by I	
	around HVAC sup	<u> </u>	 ▼			ns to be Completed by I Reduce Humidity Levels	
	ks and floor drair		▼			AC to reduce CO2	▼
			 ▼ 	Fyaluate	and renai	HVAC system as need	led ▼

May 18, 2016

Time of Day

12:00

Evaluation Date

Silver Trail Middle School

Outdoor Conditions Temperature 93.4	Relativ	e Humidity	75.2	Ambient CO2 4	70
Fish Temperature Range Relative Hu 191 72.0 72 - 78 60.8	 i	Range 0% - 60%	co ² 2067	Range # O MAX 700 > Ambient	ccupants 25
Noticeable Odor No Visible water of staining		Visible mi growt		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 S		Yes		HVAC Return Grills Clean	Yes
Walls Clean Yes Inside of Plooring Clean Yes Duct Cl	of Supply ean	Yes		Inside of Return Duct Clean	Yes
Room Surfaces Yes Ceiling Clean Grills C	at Supply lean	Yes			
Trash Removed Yes Exhaust Fan	s Working	N/A		Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No Drain	Traps Wet	N/A		Air Fresheners	No
Room Cluttered No Food if Stored in Sealed Cont		N/A		in Room	140
Mechanical Equipment Location FISH 172				Mechanical Room Clean	Yes
Filters Installed Properly Yes Filt	ers Clean	Yes	ı	nside of HVAC Unit Clean	Yes
Condensate Pan Clean Yes Cooling (Coil Clean	Yes	N/A	A in this section = Not Acc	essible
Fresh Air Intake Location Roof top				Fresh Air Intake Free	Yes
Pollutant Sources Near Air Intake				of Obstruction	
Observations					
Humidity Elevated - CO2 levels elevated.					
Ceiling tiles stained / missing throughout facility due replacement project	e to roof l	eaks. FACILIT	TIES & CON	STRUCTION to expedite	roofing
Corrective Actions to be Completed by Site Based	Staff	Correc	tive Action	s to be Completed by Pl	PO
	▼	•		Reduce Humidity Levels	▼
	▼			AC to reduce CO2 HVAC system as neede	
	▼		•	,	▼
	▼				▼
	▼				▼
	▼				▼