

managing risk with responsibility

Aston A. Henry, Director	
Risk Management Departm	ent

 Telephone:
 754 321-1900

 Fax:
 754 321-1917

May 1, 2014	Signature on File	For Custodial Supervisor Use Only
TO:	Michael Breslaw, Principal Tradewinds Elementary School	Custodial Issues Addressed Custodial Issues Not Addressed
FROM:	Dan Meyer, Project Manager Risk Management Department	
SUBJECT:	Indoor Air Quality (IAQ) Assessment	

On April 30, 2014, I conducted an assessment at **Tradewinds Elementary School**. Attached are findings and recommendations for further assessment, remediation, or corrective actions needed.

The IAQ Assessment did not identify any existing conditions significantly impacting IAQ or presenting immediate health and safety concerns 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 allergens and / or conditions noted 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 any item/s identified and noted 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, Task Assigned Chief Facilities & Construction Officer, 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

RK/tc Enc.

	IAQ Assessr	nent		
Tradewinds	Elementary Evaluation Date	e April 30, 2014	Time of Day	1:55
Outdoor Conditions Tempera	ture 87.8 Relative	Humidity 62.4	Ambient CO2 6	25
		Range CO % - 60% 107		ccupants 25
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' X 4' Lay inWallsDrywallFloor12" x 12" Vinyl	Yes No	No No	2 tiles	
Ceiling CleanYesWalls CleanYesFlooring CleanYesRoom Surfaces CleanYes	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	Yes Yes	HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Trash RemovedYesSigns of PestsNoRoom ClutteredYes	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes Yes Yes	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	Yes No
Mechanical Equipment Location Filters Installed Properly Yes Condensate Pan Clean Yes		Yes	Mechanical Room Clean Inside of HVAC Unit Clean	Yes Yes
Fresh Air Intake Location Pollutant Sources Near Air Intake	Outside of Room None	▼ ▼	Fresh Air Intake Free of Obstruction	Yes
Observations				
2 stained ceiling tiles. Both teste microbial growth. Roof leaks hav cleaning chemicals need to be re	ve been repaired - tiles need to			

## Corrective Actions to be Completed by Site Based Staff

▼
▼
▼
▼
▼
▼
▼
▼

▼
▼
▼
▼
▼
▼
▼
▼

Fish       Temperature       Range       Relative Humidity       Range       CO <sup>2</sup> Range       # Occupants         151       74.3       72 - 78       52       30% - 60%       1010       MAX 700 >       3         Noticeable Odor       No       Visible water damage / staining?       Visible microbial growth?       Amoinent material affected         Ceiling       2' X 4' Lay in       Yes       No       5 tiles         Walls       Drywall       No       No       5 tiles         Floor       12'' x 12'' Vinyl       No       No       HVAC Supply         Yes       HvAC Supply       No       HVAC Return Grills Clean       Yes         No       No       No       HVAC Return Grills Clean       Yes         No       No       No       HVAC Return Grills Clean       Yes         Room Surfaces       Yes       Ceiling at Supply Grills Clean       No       Signs of Pests       No         Room Cluttered       Yes       Food if Stored in Room is in Sealed Containers       Yes       Air Fresheners in Room       No         Mechanical Equipment Location       FISH #189       Mechanical Room Clean       Yes         Fitters Installed Properly       Yes       Food if Stored in Room		IAQ Assessr	nent		
Fish       Temperature       Range       Relative Humidity       Range       CO <sup>2</sup> Range       # Occupants         151       74.3       72 - 78       52       30% - 60%       1010       MAX 700 >       3         Noticeable Odor       No       Visible water damage / staining?       Visible microbial growth?       Amount of material affected         Ceiling       2' X 4' Lay in       Yes       No       511       Amount of         Walls       Drywall       No       No       Stiles       Mo         Floor       12" x 12" Vinyl       No       No       HVAC Supply       HVAC Return Grills Clean       Yes         Flooring Clean       Yes       Inside of Supply       Yes       Inside of Return Duct Clean       Yes         Room Surfaces       Yes       Ceiling at Supply       Yes       Inside of Return Duct Clean       Yes         Trash Removed       Yes       Exhaust Fans Working       Yes       Air Fresheners In Room       No         Room Cluttered       Yes       Food if Stored in Room is In Sealed Containers       Yes       Inside of HVAC Unit Clean       Yes         Filters Installed Properly       Yes       Food if Stored in Room       Yes       Inside of HVAC Unit Clean       Yes <tr< td=""><td>Tradewinds</td><td>Elementary Evaluation Date</td><td>e April 30, 2014</td><td>Time of Day</td><td>:55</td></tr<>	Tradewinds	Elementary Evaluation Date	e April 30, 2014	Time of Day	:55
151       74.3       72 - 78       52       30% - 60%       1010       MAX 700 > 3       Ambient         Noticeable Odor       No       Visible water damage / staining?       Visible microbial staining?       Amount of material affected         Ceiling       2'X 4' Lay in       Yes       No       5 tiles         Walts       Drywall       No       No       Stiles         Floor       12'X 12' Vinyl       No       No       HVAC Supply         Ceiling Clean       Yes       HVAC Supply       HVAC Return Grills Clean       Yes         Floor       12'X 12' Vinyl       No       No       HVAC Return Grills Clean       Yes         Signs of Pests       Yes       Diside of Supply Grills Clean       Yes       Inside of Return Ves       Yes         Signs of Pests       No       Drain Traps Wet       Yes       Air Fresheners in Room       No         Mechanical Equipment Location       FISH #189       Mechanical Room Clean       Yes         Filters Installed Properly       Yes       Filters Clean       Inside of Room       Yes         Filters Installed Properly       Yes       Cooling Coil Clean       Yes       Inside of Room       Yes         Fresh Air Intake Location       Outside of Room <t< td=""><td>Outdoor Conditions Temper</td><td>ature 87.8 Relative</td><td>Humidity 62.4</td><td>Ambient CO2 62</td><td>25</td></t<>	Outdoor Conditions Temper	ature 87.8 Relative	Humidity 62.4	Ambient CO2 62	25
Noticeable Odor       No       Instruming?			1010	MAX 700 >	· ·
Walls       Drywall       No       No       No         Floor       12" x 12" Vinyl       No       No       No         Ceiling Clean       Yes       HVAC Supply Grills Clean       No       HVAC Return Grills Clean       Yes         Walls Clean       Yes       Inside of Supply Duct Clean       Yes       Inside of Return Duct Clean       Yes         Room Surfaces       Yes       Ceiling at Supply Grills Clean       Yes       Inside of Return Duct 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       No         Mechanical Equipment Location       FISH #189       Mechanical Room Clean       Yes         Filters Installed Properly       Yes       Filters Clean       Yes         Condensate Pan Clean       Yes       Cooling Coil Clean       Yes         Fresh Air Intake Location       Outside of Room       Yes       Fresh Air Intake Free of Obstruction       Yes         Observations       None       Yes       None       Yes       Yes       Yes		staining?	growth?	material affected	
Ceiling CleanYesHVAC Supply Grills CleanNoHVAC Return Grills CleanYesWalls CleanYesInside of Supply Duct CleanYesInside of Return Duct CleanYesFlooring CleanYesCeiling at Supply Grills CleanYesInside of Return Duct CleanYesRoom Surfaces CleanYesCeiling at Supply Grills CleanYesUnapproved Chemicals / Cleaners in RoomYesTrash RemovedYesExhaust Fans Working Grills CleanYesUnapproved Chemicals / Cleaners in RoomYesSigns of PestsNoDrain Traps Wet in Sealed ContainersYesAir Fresheners in RoomNoMechanical Equipment LocationFISH #189Mechanical Room Clean YesYesFilters Installed Properly Condensate Pan CleanYesFilters Clean YesYesFresh Air Intake Location Pollutant Sources Near Air IntakeOutside of RoomYesObservationsOutside of RoomYesObservationsNoYes	Walls Drywall		No		
CleanCleanCleanYesTrash RemovedYesExhaust Fans WorkingYesUnapproved Chemicals / Cleaners in RoomYesSigns of PestsNoDrain Traps WetYesAir Fresheners in RoomNoRoom ClutteredYesFood if Stored in Room is in Sealed ContainersYesMechanical Room CleanYesMechanical Equipment LocationFISH #189Mechanical Room CleanYesYesFilters Installed ProperlyYesFilters CleanYesInside of HVAC Unit CleanYesFresh Air Intake LocationOutside of RoomYesFresh Air Intake Free of ObstructionYesPollutant Sources Near Air IntakeNoneYesYesObservationsVesVesVesYesObservationsVesVesVesYes	Ceiling Clean Yes Walls Clean Yes Flooring Clean Yes	HVAC Supply Grills Clean Inside of Supply Duct Clean	No	Grills Clean Inside of Return	
Signs of PestsNoDrain Traps WetYesAir Fresheners in RoomYesRoom ClutteredYesFood if Stored in Room is in Sealed ContainersYesAir Fresheners in RoomNoMechanical Equipment LocationFISH #189Mechanical Room CleanYesFilters Installed ProperlyYesFilters CleanYesInside of HVAC Unit CleanYesCondensate Pan CleanYesCooling Coil CleanYesFresh Air Intake Free of ObstructionYesFresh Air Intake LocationOutside of RoomVFresh Air Intake Free of ObstructionYesObservationsNoneVFresh Air Intake Free of ObstructionYes	100		Yes		
Room Cluttered     Yes     Air Fresheners in Room     No       Mechanical Equipment Location     FISH #189     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     Fresh Air Intake Free of Obstruction     Yes       For pollutant Sources Near Air Intake     None     Yes     Yes     Yes					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       Yes       Fresh Air Intake Free of Obstruction       Yes         Pollutant Sources Near Air Intake       None       ▼       Yes       Yes       Yes         Observations       Ves       Ves       Ves       Yes       Yes		Food if Stored in Room is			No
Condensate Pan Clean Yes   Fresh Air Intake Location Outside of Room   Pollutant Sources Near Air None   None Ves   Observations	Mechanical Equipment Location	FISH #189		Mechanical Room Clean	Yes
Fresh Air Intake Location       Outside of Room       Image: Construction       Image: Construction       Image: Construction       Fresh Air Intake Free of Obstruction       Yes         Pollutant Sources Near Air Intake       Image: Construction       Image: Construction	Filters Installed Properly Yes	S Filters Clean	Yes	nside of HVAC Unit Clean	Yes
Pollutant Sources Near Air     Intake     of Obstruction     Yes       Observations	Condensate Pan Clean Yes	S Cooling Coil Clean	Yes		
	Pollutant Sources Near Air				Yes
5 stained ceiling tiles. Room was slightly cluttered. No smells or signs of microbial growth. Roof leaks have been		s slightly cluttered. No smells o	r signs of microbial are	owth. Roof leaks have be	en

repaired - tiles need to be changed. Dust build up on HVAC supply grills and elevated surfaces. Live plant (butterfly experiment) in the classroom. Non-approved cleaning chemical needs to be removed. Stuffed animals in classroom. Doors open to adjacent classrooms.

Corrective Actions to be Completed by Site Based Staff

Remove and replace stained ceiling tile	▼
Thoroughly clean elevated surfaces	▼
Encourage occupant to reduce clutter	▼
Clean HVAC supply grills with Wexcide	▼
Remove live plants from room	▼
Soil can be source of microbial growth	▼
Remove stuffed animals from room	▼
Ensure doors and windows remain closed	▼

▼
▼
▼
▼
▼
▼
▼
▼

	IAQ Assessr	nent		
Tradewin	ds Elementary Evaluation Date	e April 30, 2014	Time of Day 1	1:55
Outdoor Conditions Temp	erature 87.8 Relative	Humidity 62.4	Ambient CO2 6	25
		Range         CO <sup>2</sup> % - 60%         1043	Range # Oo MAX 700 > Ambient	ccupants 3
Noticeable OdorNoCeiling2' X 4' Lay inWallsDrywallFloor12" x 12" Vinyl	Visible water damage / staining? Yes No No	Visible microbial growth? No No No	Amount of material affected 3 tiles	
Ceiling CleanYesWalls CleanYesFlooring CleanYesRoom Surfaces CleanYes	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	No Yes Yes	HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Trash RemovedYesSigns of PestsNoRoom ClutteredYes	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes Yes	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
	on FISH #189 Yes Filters Clean Yes Cooling Coil Clean	Yes	Mechanical Room Clean Inside of HVAC Unit Clean	Yes Yes
Fresh Air Intake Location Pollutant Sources Near Air Intake	Outside of Room None	▼	Fresh Air Intake Free of Obstruction	Yes
Observations				
			al la la marcalla Decat La 1911	

Active roof leaks - 2 wet tiles. Room was slightly cluttered. No smells or signs of microbial growth. Dust build up on HVAC supply grills and elevated surfaces. Live plant (butterfly experiment) in the classroom. Stuffed animals in classroom. Doors open to adjacent classrooms. 3 tack boards in classroom all tested high for moisture. Recommend removing the cover paper. Work order generated for roof leaks - J647722

Corrective Actions to be Completed by Site Based Staff

▼
▼
▼
▼
▼
▼
▼
▼

Expedite repair of roof leaks - J647722	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

	IAQ Assessr	nent		
Tradewinds	Elementary Evaluation Dat	e April 30, 2014	Time of Day 1	1:55
Outdoor Conditions Tempera	ature 87.8 Relative	Humidity 62.4	Ambient CO2 6	25
		Range         CO <sup>2</sup> % - 60%         1007	Range # Oo MAX 700 > Ambient	25
Noticeable Odor     No       Ceiling     2' X 4' Lay in       Walls     Drywall	Visible water damage / staining? No	Visible microbial growth? No No	Amount of material affected	
Floor12" x 12" VinylCeiling CleanYesWalls CleanYesFlooring CleanYesRoom SurfacesYesCleanYes	No HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	No No Yes Yes	HVAC Return Grills Clean Inside of Return Duct Clean	Yes Yes
Trash RemovedYesSigns of PestsNoRoom ClutteredYes	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes Yes	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location Filters Installed Properly Yes Condensate Pan Clean Yes		Yes I Yes	Mechanical Room Clean nside of HVAC Unit Clean	Yes Yes
Fresh Air Intake Location Pollutant Sources Near Air Intake	Outside of Room None	<ul><li>▼</li></ul>	Fresh Air Intake Free of Obstruction	Yes
Observations Room was slightly cluttered. No surfaces.	smells or signs of microbial gr	owth. Dust build up on	HVAC supply grills and	elevated

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean elevated surfaces	▼
Encourage occupant to reduce clutter	▼
Clean HVAC supply grills with Wexcide	▼
	▼
	▼
	▼
	▼
	▼
	<ul> <li></li> &lt;</ul>

▼
▼
▼
▼
▼
▼
▼
▼