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May 20, 2013

**Signature on File**

TO: Frances Fuce-Ollivierre, Principal  
**Castle Hill Elementary School**

FROM: Robert Krickovich, Coordinator I, LEA  
Facilities Design and Construction

SUBJECT: Indoor Air Quality (IAQ) Assessment

<u>For Custodial Supervisor Use Only</u>	
<input type="checkbox"/>	Custodial Issues Addressed
<input type="checkbox"/>	Custodial Issues Not Addressed
_____	
_____	

On May 2, 2013, I conducted an assessment at **Castle Hill 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, 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, Task Assigned Director, Risk Management  
Sonja Coley, Senior Project Manager, Facilities Design and Construction  
Broward Teachers Union  
Federation of Public Employees

RK/tc  
Enc.



# IAQ Assessment

Castle Hill Elementary

Evaluation Date May 2, 2013

Time of Day 1:30

Outdoor Conditions    Temperature 83.4

Relative Humidity 63.5

Ambient CO2 484

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants	
<span style="border: 1px solid black; padding: 2px;">117E</span>	<span style="border: 1px solid black; padding: 2px;">68.1</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">55.4</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">588</span>	<span style="border: 1px solid black; padding: 2px;">MAX 700 &gt; Ambient</span>	<span style="border: 1px solid black; padding: 2px;">2</span>	
Noticeable Odor		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	<span style="border: 1px solid black; padding: 2px;">2' X 4' Lay in</span>		<span style="border: 1px solid black; padding: 2px;">Yes</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">4 stained / 3 missing</span>	
Walls	<span style="border: 1px solid black; padding: 2px;">Drywall</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;"></span>	
Floor	<span style="border: 1px solid black; padding: 2px;">Carpet</span>		<span style="border: 1px solid black; padding: 2px;">Yes</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">Entire Room</span>	
Ceiling Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	HVAC Supply Grills Clean		<span style="border: 1px solid black; padding: 2px;">No</span>	HVAC Return Grills Clean		<span style="border: 1px solid black; padding: 2px;">No</span>
Walls Clean		<span style="border: 1px solid black; padding: 2px;">No</span>	Inside of Supply Duct Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of Return Duct Clean		<span style="border: 1px solid black; padding: 2px;">No</span>
Flooring Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Ceiling at Supply Grills Clean		<span style="border: 1px solid black; padding: 2px;">No</span>			
Room Surfaces Clean		<span style="border: 1px solid black; padding: 2px;">No</span>						
Trash Removed		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Exhaust Fans Working		<span style="border: 1px solid black; padding: 2px;">N/A</span>	Unapproved Chemicals / Cleaners in Room		<span style="border: 1px solid black; padding: 2px;">No</span>
Signs of Pests		<span style="border: 1px solid black; padding: 2px;">No</span>	Drain Traps Wet		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Air Fresheners in Room		<span style="border: 1px solid black; padding: 2px;">No</span>
Room Cluttered		<span style="border: 1px solid black; padding: 2px;">No</span>	Food if Stored in Room is in Sealed Containers		<span style="border: 1px solid black; padding: 2px;">N/A</span>			
Mechanical Equipment Location			<span style="border: 1px solid black; padding: 2px;">Above Ceiling and on Roof</span>			Mechanical Room Clean		<span style="border: 1px solid black; padding: 2px;">N/A</span>
Filters Installed Properly		<span style="border: 1px solid black; padding: 2px;">N/A</span>	Filters Clean		<span style="border: 1px solid black; padding: 2px;">N/A</span>	Inside of HVAC Unit Clean		<span style="border: 1px solid black; padding: 2px;">N/A</span>
Condensate Pan Clean		<span style="border: 1px solid black; padding: 2px;">N/A</span>	Cooling Coil Clean		<span style="border: 1px solid black; padding: 2px;">N/A</span>			
Fresh Air Intake Location			<span style="border: 1px solid black; padding: 2px;">N/A</span> ▼			Fresh Air Intake Free of Obstruction		<input type="checkbox"/>
Pollutant Sources Near Air Intake			<span style="border: 1px solid black; padding: 2px;"></span> ▼					

**Observations**

Bad musty odor in room - Dust on walls in front of supply grills - 4 stained ceiling tiles various areas of room - Complaint of water dripping under HVAC unit above ceiling North side of room - 2' x 3' picture on counter top North side of room soaking wet with microbial growth (discarded by HFSP) - water under picture on counter top - carpet wet under HVAC unit where ceiling tiles missing - Inside of cabinet wet (drawers swollen / warped) - musty odor in cabinet - HVAC condensate above ceiling leaked into room and caused heavy water damage to cabinets, wall, & carpet in room.

**Corrective Actions to be Completed by Site Based Staff**

Thoroughly clean all surfaces	▼
Clean dust from wall surfaces	▼
Clean ceilings around HVAC supply grills	▼
Clean HVAC supply and return grills with Wexcide	▼
	▼
	▼
	▼
	▼

**Corrective Actions to be Completed by PPO**

Evaluate and repair cause of stained ceiling tiles	▼
Clean Entire HVAC System - Unit and Drops	▼
Remove cabinet from North wall	▼
Repair/replace cabinet	▼
Remove and replace wall material behind cabinet	▼
Replace missing ceiling tiles	▼
Replace water damaged carpet	▼
	▼