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July 12, 2005

TO: Ms. Linda Chuckman, Principal
Fox Trail Elementary School

FROM: Aston A. Henry, Jr., Supervisor
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
Portable 438, 439, 691VE and 848VE

On July 7, 2005 the IAQ Assessment Team conducted an assessment of Portable 438, 439, 691VE and 848VE at **Fox Trail Elementary School**. The evaluation consisted of a walkthrough of the identified areas to assess the current condition of the location with regard to indoor air quality. This assessment included observations of the carpet, floor tile, ceiling tile, interior walls, false ceiling plenum, and accessible ventilation equipment.

Attached are the findings of this assessment along with recommendations for further assessment, remediation, or corrective actions, if needed.

Generally, the IAQ Assessment did not identify any existing conditions significantly impacting IAQ and thereby 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 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.

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact me at 754-321-3200.

cc: Dr. Verda Farrow, Area Superintendent
Kevin Sawyer, Area Director
Jeffrey S. Moquin, Director, Risk Management
Drew Lippman, Project Manager II, Facilities and Construction Management
Ralph Eckhardt, Broward Teachers Union
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division
Robert Krickovich, Coordinator, LEA, Facilities and Construction Management

AH/tc

IAQ Assessment

Fox Trail Elementary School

Evaluation Requested

Time of Day

Evaluation Date

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="P-438"/>	<input type="text" value="77.4"/>	<input type="text" value="72 - 78"/>	<input type="text" value="59.1"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="397"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="2"/>
Noticeable Odor	<input type="text" value="No"/>	Visible water damage / staining?	<input type="text" value="No"/>	Visible microbial growth?	<input type="text" value="No"/>	Amount of material affected	<input type="text" value="None"/>
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>
Wall Type	<input type="text" value="Tackable"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="South and Southeast Wall"/>
Flooring	<input type="text" value="Tile"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Repair/Replace as appropriate"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Return Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Ceiling at Supply Grills	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="N/A"/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>

Observations

Findings:
 - High moisture level on South wall under stand alone A/C unit and on Southeast corner surrounding the exterior door

Recommendations:
Site Based Maintenance:
 - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations Division:
 - Evaluate and repair/replace damage to South and Southeast wall

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Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="P-439"/>	<input type="text" value="76.3"/>	<input type="text" value="72 - 78"/>	<input type="text" value="60.4"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="393"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="2"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="One ceiling tile"/>	
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>	<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="One ceiling tile"/>	
Wall Type	<input type="text" value="Tackable"/>	<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="North wall"/>	
Flooring	<input type="text" value="Tile"/>	<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="One stained tile"/>
Walls	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="Repair/Replace as appropriate"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
HVAC Return Grills	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value="N/A"/>
Ceiling at Supply Grills	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value="N/A"/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>

Observations

Findings:

- High moisture level on North wall
- High moisture level underneath cabinet in front of sink
- Roof leak surrounding stove exhaust vent
- Water damaged ceiling tile
- Water damaged wood floor in front of exterior on West side
- Dust and debris on HVAC coils

Recommendations:

Site Based Maintenance:

- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations Division:

- Evaluate and repair/replace damage to North wall and cabinet in front of sink
- Evaluate for roof leak (around stove exhaust vent) and repair as appropriate and replace ceiling tile
- Evaluate wood floor (exterior West side) and repair/replace as appropriate
- Evaluate and repair stand alone A/C unit and clean coils as appropriate

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Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="P-691VE"/>	<input type="text" value="76.6"/>	<input type="text" value="72 - 78"/>	<input type="text" value="53.4"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="384"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="3"/>
Noticeable Odor	<input type="text" value="Yes"/>		Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="5 Ceiling Tiles"/>
Wall Type	<input type="text" value="Tackable"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="All Walls"/>
Flooring	<input type="text" value="Tile"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="Replace 5 damaged ceiling tiles"/>
Walls	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="Repair/Replace as appropriate"/>
Flooring	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean and sanitize"/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
HVAC Return Grills	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value="N/A"/>
Ceiling at Supply Grills	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value="N/A"/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>

Observations

<p>Findings:</p> <ul style="list-style-type: none"> - High moisture level in wall surfaces throughout the entire portable - Dust and debris on floor - Roof leak on Southwest corner - Damaged T-1-11 West side of portable <p>Recommendations:</p> <p>Site Based Maintenance:</p> <ul style="list-style-type: none"> - Remove and replace damaged ceiling tiles - Clean and sanitize floor - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate <p>Physical Plant Operations Division:</p> <ul style="list-style-type: none"> - Evaluate and repair/replace damage to interior walls throughout the entire portable - Evaluate and repair roof leak on Southwest corner as appropriate - Evaluate and repair/replace T-1-11
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Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="P-848VE"/>	<input type="text" value="71.7"/>	<input type="text" value="72 - 78"/>	<input type="text" value="53.9"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="413"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="3"/>
Noticeable Odor	<input type="text" value="Yes"/>	Visible water damage / staining?	<input type="text" value="No"/>	Visible microbial growth?	<input type="text" value="No"/>	Amount of material affected	<input type="text" value="None"/>
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>
Wall Type	<input type="text" value="Tackable"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="All Walls"/>
Flooring	<input type="text" value="Tile"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="Repair/Replace as appropriate"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Return Grills	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="N/A"/>
Ceiling at Supply Grills	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="N/A"/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>

Observations

Findings:

- High moisture level in wall surfaces throughout the entire portable
- No visible signs of microbial growth
- Damaged T-1-11 around exterior door and south wall

Recommendations:

Site Based Maintenance:

- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations Division:

- Evaluate and repair/replace damage to interior walls throughout the entire portable
- Evaluate and repair/replace T-1-11