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October 31, 2006

Signature on File

TO:	Mr. Robert Schneider, Principal Davie Elementary School	
FROM	Robert I. Krickovich. Coordinator. LEA	

Facilities and Construction Management, Environmental Division

SUBJECT: Indoor Air Quality (IAQ) Assessment FISH 010, 110, 116, 117, 121 and 123

On October 23, 2006 Richard Rosa conducted an assessment of FISH 010, 110, 116, 117, 121 and 123 at **Davie Elementary School**. This evaluation included observations of the flooring system, ceiling tiles, false ceiling plenum, environmental surfaces, interior and exterior walls, and the accessible ventilation equipment. Additionally, environmental parameter measurements were taken to include temperature, relative humidity, and carbon dioxide. The detailed findings, along with the recommended corrective action can be found on the attached IAQ Assessment Worksheets.

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.

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact me at 754-321-1638.

cc: Sam Gregg, Area Superintendent Margaret Underhill, Area Director Jeffrey S. Moquin, Director, Risk Management Frank Girardi, Project Manager, Facilities and Construction Management Gerald Devio, Project Manager, Facilities and Construction Management Dane Ramson, Broward Teachers Union Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1 Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division

RK/tc Enc.

			IAQ As	sessment	Location N	umber	2801	
	D	avie Elementary	/ School		Evaluation I	Requested	October	23, 2006
Time of Day	12:03 pm				Evalu	uation Date	October	23, 2006
Outdoor Conditio	ons Tem	perature 9	1.1	Relative Humidity	60.6	Ambie	nt CO2	515
Fish Ter	mperature F	ange Relat	ive Humidity	Range	CO2	Ran	ige #	Occupants
010	79.9 7	2 - 78	64.8	30% - 60%	1315] Max 700	> Ambient	1
Noticeable Odor	No		isible water age / staining	Visible micro growth?		nount of ma affected		
Ceiling Type	2 x 4 Lay	n	Yes	No		1 c	eiling tile	
Wall Type	Plaster		Yes	No		280 S	quare Feet	
Flooring	12 x 12 Vin	yl	No	No			None	
	Clean	Minor Dust / Debris	Needs Cleaning		Corrective	Action Re	equired	
Ceiling	No	Yes	Yes		Replac	e ceiling ti	le	
Walls	No	Yes	Yes		Repair/repla	ice as appr	opriate	
Flooring	Yes	No	No					
HVAC Supply Gr	rills Yes	No	No					
HVAC Return Gr	ills Yes	No	No					
Ceiling at Supply Grills	Y Yes	No	No					
Surfaces in Roor	m Yes	Νο	No					

Findings:

- One stained ceiling tile

- Water damage on South wall in hallway

- Temperature and humidity level were elevated

Recommendations:

Site Based Maintenance:

- Replace stained ceiling tile

- 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:

- Evaluate roof flashing/parapet cap along entire exterior wall of South hallway and repair/replace as appropriate. Repair/replace wall material along South wall as appropriate.

Facilities and Construction Management:

			IAQ As	sessment	Locatio	on Number	2801	
	Da	vie Elementary	y School		Evaluat	ion Requested	October	23, 2006
Time of Day	1:00 pm				E	Evaluation Date	October	23, 2006
Outdoor Condition	ons Temp	erature 9	1.1	Relative Humi	dity 60.6	Ambie	nt CO2	515
Fish Te	emperature Ra	ange Relat	ive Humidity	Range	CO2	Ran	ge #	Occupants
110	75.3 72	- 78	78.5	30% - 60%	1392	Max 700	> Ambient	24
Noticeable Odo	r No		isible water age / staining	Visible m ? grow		Amount of ma affected	terial	
Ceiling Type	2 x 4 Lay Ir	1	No	No			None	
Wall Type	Drywall		No	No	>		None	
Flooring	Carpet		No	No	>		None	
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	ctive Action Re	equired	
Ceiling	Yes	Νο	No					
Walls	Yes	No	No					
Flooring	Yes	Νο	No					
HVAC Supply G	rills Yes	Νο	No					
HVAC Return G	rills Yes	Νο	No					
Ceiling at Suppl Grills	ly Yes	Νο	No					
Surfaces in Roo	om Yes	Νο	No					

Findings: Media Center

- Humidity level was elevated

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

Facilities and Construction Management: - HVAC project was just completed over the summer. Jerry Devio in Facilities has scheduled a site visit by the contractor to address HVAC concerns.

			IAQ As	sessment	Location N	lumber	2801	
	D	avie Elementar	y School		Evaluation	Requested	October	[.] 23, 2006
Time of Day	2:45 pm				Eval	uation Date	October	23, 2006
Outdoor Conditio	ons Tem	perature 9	1.1	Relative Humidity	60.6	Ambie	nt CO2	515
Fish Te	mperature	Range Relat	tive Humidity	Range	CO2	Ran	ige #	Occupants
116	75.1 7	2 - 78	70.1	30% - 60%	1526] Max 700	> Ambient	1
Noticeable Odor	No		'isible water age / staining	Visible micro growth?	obial Ar	nount of ma affected	terial	
Ceiling Type	2 x 4 Lay	In	No	No			None	
Wall Type	Tackboar	d	No	No			None	
Flooring	12 x 12 Vir	iyl	No	No			None	
	Clean	Minor Dust / Debris	Needs Cleaning		Corrective	e Action Re	equired	
Ceiling	Yes	Νο	No					
Walls	Yes	No	No					
Flooring	Yes	No	No					
HVAC Supply Gr	ills Yes	No	No					
HVAC Return Gr	ills Yes	No	No					
Ceiling at Supply Grills	/ Yes	No	No					
Surfaces in Rooi	m No	Yes	Yes		Clean a	is appropri	ate	

Findings:

- Humidity level was elevated

- Minor dust and debris on elevated surfaces

Recommendations:

Site Based Maintenance:

- Clean elevated surfaces as appropriate

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

Facilities and Construction Management:

			IAQ As	sessment	Location N	lumber	2801	
	D	avie Elementa	ry School		Evaluation	Requested	October	23, 2006
Time of Day	2:15 pm				Eval	uation Date	October	23, 2006
Outdoor Conditio	ons Tem	perature	91.1	Relative Humidity	60.6	Ambie	nt CO2	515
Fish Te	mperature	Range Rela	ative Humidity	Range	CO2	Ran	ige #	Occupants
117	74.3 7	2 - 78	72	30% - 60%	1442	Max 700	> Ambient	2
Noticeable Odor	r No		Visible water nage / staining	Visible micro growth?	obial Ar	nount of ma affected	terial	
Ceiling Type	2 x 4 Lay	In	Νο	No			None	
Wall Type	Tackboar	ď	No	No			None	
Flooring	12 x 12 Vir	iyl	No	No			None	
	Clean	Minor Dust / Debris	Needs Cleaning		Correctiv	e Action Re	equired	
Ceiling	Yes	No	No					
Walls	Yes	No	No					
Flooring	Yes	No	No					
HVAC Supply G	rills Yes	No	No					
HVAC Return Gr	ills Yes	No	No					
Ceiling at Suppl Grills	y Yes	No	No					
Surfaces in Roo	m No	Yes	Yes		Clean a	as appropri	ate	

Findings:

- Humidity level was elevated

- Minor dust and debris on elevated surfaces

Recommendations:

Site Based Maintenance:

- Clean elevated surfaces as appropriate

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

Facilities and Construction Management:

			IAQ As	sessment	Location Nu	mber	2801	
	Davi	ie Elementar	y School		Evaluation R	equested	October	23, 2006
Time of Day	2:00 pm				Evalua	ation Date	October	23, 2006
Outdoor Condition	s Tempe	rature 9	1.1	Relative Humidity	60.6	Ambie	nt CO2	515
	perature Rar	nge Rela	tive Humidity	Range	CO2	Ran	ige #	Occupants
121	73.7 72 -	78	74.7	30% - 60%	1656	Max 700	> Ambient	15
Noticeable Odor	No		'isible water age / staining	Visible micro growth?	obial Am	ount of mar affected	terial	
Ceiling Type	2 x 4 Lay In		No	No			None	
Wall Type	Tackboard		No	No			None	
Flooring	12 x 12 Vinyl		No	No			None	
	Clean M	/linor Dust / Debris	Needs Cleaning		Corrective	Action Re	equired	
Ceiling	Yes	No	No					
Walls	Yes	No	No					
Flooring	Yes	No	No					
HVAC Supply Grill	s Yes	No	No					
HVAC Return Grill	s Yes	No	No					
Ceiling at Supply Grills	No	Yes	Yes		Clean as	appropria	ate	
Surfaces in Room	Νο	Yes	Yes		Clean as	appropri	ate	

Findings:

- Humidity level was elevated
- Minor dust and debris on elevated surfaces
- Dust and debris on ceiling at HVAC supply grills

Recommendations:

Site Based Maintenance:

- Clean elevated surfaces as appropriate
- Clean ceiling at HVAC supply grills
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Facilities and Construction Management:

		IAQ Ass	essment	Location Number	2801
	Davie Ele	mentary School		Evaluation Requested	October 23, 2006
Time of Day 1	:30 pm			Evaluation Date	October 23, 2006
Outdoor Conditions	5 Temperatur	e 91.1	Relative Humidity	60.6 Ambie	nt CO2 515
Fish Temp	erature Range	Relative Humidity	Range	CO2 Ran	ge # Occupants
123	75.2 72 - 78	74.2	30% - 60%	1712 Max 700	> Ambient 22
Noticeable Odor	No	Visible water damage / staining?	Visible micro ? growth?	bial Amount of ma affected	terial
Ceiling Type	2 x 4 Lay In	No	No		None
Wall Type	Tackboard	No	No		None
Flooring	12 x 12 Vinyl	No	No		None
Ceiling	Clean Minor / De Yes N			Corrective Action Re	equired
Walls	Yes	o No			
Flooring	Yes	o No			
HVAC Supply Grills	s Yes N	o No			
HVAC Return Grills	s Yes N	o No			
Ceiling at Supply Grills	No	es Yes		Clean as appropri	ate
Surfaces in Room	No	s Yes		Clean as appropri	ate

Findings:

- Humidity level was elevated
- Minor dust and debris on elevated surfaces
- Dust and debris on ceiling at HVAC supply grills

Recommendations:

Site Based Maintenance:

- Clean elevated surfaces as appropriate
- Clean ceiling at HVAC supply grills

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

Facilities and Construction Management: