



Jeffrey S. Moquin, Director Risk Management Department Telephone: 754-321-3200 Facsimile: 754-321-3290

March 28, 2007

Signature on File

- TO: Mr. Chris Carney, Principal Bennett Elementary School
- FROM: Robert J. Krickovich, Coordinator, LEA Facilities and Construction Management, Environmental Division
- SUBJECT:Indoor Air Quality (IAQ) AssessmentFISH 208, 209, 212, 213, 304, 305 and 311

On February 22, 2007 I conducted an assessment of FISH 208, 209, 212, 213, 304, 305 and 311 at **Bennett Elementary School**. This evaluation included observations of the flooring system, ceiling tiles and interior walls. Additionally, environmental parameter measurements were taken to include temperature and relative humidity. The detailed findings, along with the recommended corrective action can be found on the attached IAQ Assessment Worksheets.

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 754-321-1638.

 cc: Dr. Verda Farrow, Area Superintendent Joel Herbst, Area Director
Jeffrey S. Moquin, Director, Risk Management
Matthew Decker, Project Manager, Facilities and Construction Management
Jerrod Neal, 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	Locati	on Number	0201	
	Be	ennett Element	tary School		Evaluat	tion Requested	Decembe	er 21, 2006
Time of Day	1:20 pm]			I	Evaluation Date	Februar	y 22, 2007
Outdoor Condi	itions Tei	mperature	81.8	Relative Humidity	y <u>33.2</u>	2 Ambien	nt CO2	493
	Temperature	Range Re	elative Humidity	Range	CO2	Rang	ge #	Occupants
208	77	72 - 78	47	30% - 60%		Max 700 >	> Ambien	t
Noticeable Oc	lor No] da	Visible water amage / staining	Visible micr growth		Amount of mate affected	erial	
Ceiling Type	2 x 4 Lay	y In	No	No			None	
Wall Type	Plaste	r	Νο	No		Ν	None	
Flooring	12 x 12 V	ïnyl	No	No			None	
	Clean	Minor Dus / Debris	t Needs Cleaning		Corre	ctive Action Rec	quired	
Ceiling	Yes	No	No					
Walls	Yes	No	No					
Flooring	Yes	No	No					
HVAC Supply	Grills Yes	No	No					
HVAC Return	Grills Yes	No	No					
Ceiling at Sup Grills	ply Yes	No	No					
Surfaces in Ro	oom Yes	No	No					

Findings:

- Complaint that flooring is rotten and cracking. Tile has minor damage/cracking in various areas. Wood floor has 12-16% moisture content and is rippled and soft in various areas.

- No visible signs of microbial growth or water intrusion

- Ceiling tiles are bowed

-Recommendations:

Site Based Maintenance:

- Contact Physical Plant Operations to initiate a work order to repair flooring as necessary

- Replace bowed ceiling tiles

		IAQ As	sessment	Location Number	0201
	Bennett Ele	ementary School		Evaluation Requested	December 21, 2006
Time of Day 1	1:20 pm			Evaluation Date	February 22, 2007
Outdoor Conditions	s Temperatu	re 81.8	Relative Humidity	33.2 Ambi	ent CO2 493
	perature Range	Relative Humidity	Range	CO2 Ra	nge # Occupants
209	73.1 72 - 78	55	30% - 60%	Max 70	0 > Ambient
Noticeable Odor	No	Visible water damage / staining	Visible micro g? growth?	bial Amount of m affected	
Ceiling Type	2 x 4 Lay In	No	No		None
Wall Type	Plaster	No	No		None
Flooring	12 x 12 Vinyl	No	No		None
	Clean Minor / De	[·] Dust Needs bris Cleaning	3	Corrective Action R	equired
Ceiling	Yes	No			
Walls	Yes	lo No			
Flooring	Yes	lo No			
HVAC Supply Grill	s Yes N	lo No			
HVAC Return Grills	s Yes N	lo No			
Ceiling at Supply Grills	Yes	lo No			
Surfaces in Room	Yes	o No			

Findings:

- Complaint that flooring is rotten and cracking. Tile has minor separation at joints in various areas but no damage/cracking. Wood floor has 12-16% moisture content and is rippled and soft in various areas.

- No visible signs of microbial growth or water intrusion

- Ceiling tiles are bowed

-Recommendations:

Site Based Maintenance:

- Contact Physical Plant Operations to initiate a work order to repair flooring as necessary

- Replace bowed ceiling tiles

			IAQ As:	sessment	Locati	on Number	0201	
	Ber	nnett Elementa	ry School		Evaluat	tion Requested	Decemb	per 21, 2006
Time of Day	1:20 pm				ļ	Evaluation Date	Februa	ry 22, 2007
Outdoor Conditi	ons Terr	perature	81.8	Relative Humidit	y 33.2	2 Ambie	ent CO2	493
	emperature	Range Rela	ative Humidity	Range	CO2	Ran	ige f	# Occupants
212	74.4 7	2 - 78	57.4	30% - 60%		Max 700	> Ambier	nt 🗌
Noticeable Odd	or No		Visible water nage / staining	Visible mic g? growth		Amount of ma affected	terial	
Ceiling Type	2 x 4 Lay	In	No	No]		None	
Wall Type	Plaster		Νο	No	J		None	
Flooring	12 x 12 Vir	ıyl	No	No]		None	
	Clean	Minor Dust / Debris	Needs Cleaning		Corre	ctive Action Re	quired	-
Ceiling	Yes	No	No					
Walls	Yes	No	No					
Flooring	Yes	No	No					
HVAC Supply G	Fills Yes	No	No					
HVAC Return G	rills Yes	No	No					
Ceiling at Supp Grills	ly Yes	No	No					
Surfaces in Roo	om Yes	Νο	No					

Findings:

- Complaint that flooring is rotten and cracking. Tile is in good condition with no damage/cracking. Wood floor has 12-16% moisture content and is rippled and soft in various areas.

- No visible signs of microbial growth or water intrusion

- Ceiling tiles are bowed

-Recommendations:

Site Based Maintenance:

- Contact Physical Plant Operations to initiate a work order to repair flooring as necessary

- Replace bowed ceiling tiles

		IAQ A	ssessment	Locatio	on Number	0201	
	Bennett B	Elementary School		Evaluati	on Requested	Decembe	er 21, 2006
Time of Day	1:20 pm			E	valuation Date	Februar	y 22, 2007
Outdoor Condition	s Temperat	ure 81.8	Relative Humidi	ty 33.2	Ambie	nt CO2	493
Fish Tem	perature Range	e Relative Humidi	^{ty} Range	CO2	Ran	ge #	Occupants
213	71.4 72 - 78	55.1	30% - 60%		Max 700	> Ambient	t
Noticeable Odor	No	Visible wate damage / staini			Amount of mat affected	terial	
Ceiling Type	2 x 4 Lay In	No	No] [None	
Wall Type	Plaster	No	No] [None	
Flooring	12 x 12 Vinyl	No	No] [None	
		or Dust Needs Debris Cleanir		Correc	tive Action Re	equired	
Ceiling	Yes	No					
Walls	Yes	No					
Flooring	Yes	No					
HVAC Supply Grill	s Yes	No					
HVAC Return Grill	s Yes	No					
Ceiling at Supply Grills	Yes	No					
Surfaces in Room	Yes	No					

Findings:

- Complaint that flooring is rotten and cracking. Tile has minor separation at joints and minor damage/cracking in various areas. Wood floor has 12-16% moisture content and is rippled and soft in various areas.

- No visible signs of microbial growth or water intrusion

- Ceiling tiles are bowed

-Recommendations:

Site Based Maintenance:

- Contact Physical Plant Operations to initiate a work order to repair flooring as necessary

- Replace bowed ceiling tiles

			IAQ As:	sessment	Locati	on Number	0201	
	Be	nnett Elementa	ary School		Evaluat	tion Requested	Decembe	er 21, 2006
Time of Day	1:20 pm]			I	Evaluation Date	Februar	y 22, 2007
Outdoor Condi	itions Ten	nperature	81.8	Relative Humidity	y 33.2	2 Ambier	nt CO2	493
Fish	Temperature	Range Rela	ative Humidity	Range	CO2	Ranç	ge #	Occupants
304	71.8	72 - 78	55.3	30% - 60%		Max 700 >	> Ambien	t
Noticeable Od	lor No		Visible water mage / staining	Visible micr g? growth		Amount of mate affected		
Ceiling Type	2 x 4 Lay	In	Νο	No			None	
Wall Type	Plaster		Νο	No			None	
Flooring	12 x 12 Vi	nyl	No	No			None	
	Clean	Minor Dust / Debris	Needs Cleaning		Corre	ctive Action Red	quired	
Ceiling	Yes	No	No					
Walls	Yes	No	No					
Flooring	Yes	No	No					
HVAC Supply	Grills Yes	No	No					
HVAC Return	Grills Yes	No	No					
Ceiling at Sup Grills	ply Yes	No	No					
Surfaces in Ro	oom Yes	No	No					

Findings:

- Complaint that flooring is rotten and cracking. Tile has minor separation at joints and minor damage/cracking in various areas. Wood floor has 14-16% moisture content and is rippled and soft in various areas.

- No visible signs of microbial growth or water intrusion
- Ceiling tiles are bowed
- Exterior door in the hallway of building 3 leading to the play area was blocked open
- Glade Plug-In found in room

-Recommendations:

Site Based Maintenance:

- Contact Physical Plant Operations to initiate a work order to repair flooring as necessary

- Replace bowed ceiling tiles

- Ensure that all doors to the exterior remain closed. Open doors or windows allow humid untreated air into occupied environment.

- Remove Glade Plug-In

			IAQ As	sessment	Loc	cation Number	0201	
	Bennet	t Elementary	School		Eva	luation Requested	Decembe	er 21, 2006
Time of Day	1:20 pm					Evaluation Date	Februar	y 22, 2007
Outdoor Condition	s Temper	ature 81	.8	Relative Hun	nidity 3	33.2 Ambie	nt CO2	493
Fish Tem	perature Rang	ge Relati	ve Humidity	Range	CO2	2 Rar	nge #	Occupants
305	73.4 72 - 7	78	49.2	30% - 60%		Max 700	> Ambient	t
Noticeable Odor	No		sible water ge / staining		microbial owth?	Amount of ma affected	terial	
Ceiling Type	2 x 4 Lay In		Νο		No		None	
Wall Type	Plaster		No		No		None	
Flooring	12 x 12 Vinyl		No		No		None	
		inor Dust ⁄ Debris	Needs Cleaning		Co	rrective 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	Yes	Νο	No					
Surfaces in Room	Yes	No	No					

Findings:

- Complaint that flooring is rotten and cracking. Tile has minor separation at joints in various areas but no damage/cracking. Wood floor has 12-18% moisture content and is rippled and soft in various areas.

- No visible signs of microbial growth or water intrusion
- Ceiling tiles are bowed
- Exterior door in the hallway of building 3 leading to the play area was blocked open.

-Recommendations:

Site Based Maintenance:

- Contact Physical Plant Operations to initiate a work order to repair flooring as necessary

- Replace bowed ceiling tiles

- Ensure that all doors to the exterior remain closed. Open doors or windows allow humid untreated air into occupied environment.

			IAQ As:	sessment	Locati	on Number	0201	
	Bei	nnett Elementa	ry School		Evaluat	tion Requested	Decembe	er 21, 2006
Time of Day	1:20 pm				ľ	Evaluation Date	February	/ 22, 2007
Outdoor Condit	tions Ten	nperature	81.8	Relative Humidit	y 33.2	2 Ambien	t CO2	493
	Temperature	Range Rela	ative Humidity	Range	CO2	Rang	je #	Occupants
311	72.8 7	/2 - 78	53.8	30% - 60%		Max 700 >	Ambient	
Noticeable Od	or No		Visible water nage / staining	Visible mici growth		Amount of mate affected	erial	
Ceiling Type	2 x 4 Lay	In	No	No		N	None	
Wall Type	Plaster		Νο	No		N	lone	
Flooring	12 x 12 Vi	nyl	No	No		1	None	
	Clean	Minor Dust / Debris	Needs Cleaning		Corre	ctive Action Req	quired	-
Ceiling	Yes	Νο	No					
Walls	Yes	Νο	No					
Flooring	Yes	Νο	No					
HVAC Supply (Grills Yes	Νο	No					
HVAC Return C	Grills Yes	Νο	No					
Ceiling at Supp Grills	oly Yes	No	No					
Surfaces in Ro	om Yes	No	No					

Findings:

- Complaint that flooring is rotten and cracking. Tile is in good condition with no damage/cracking. Wood floor has 12-14% moisture content and is rippled and soft in various areas.

- No visible signs of microbial growth or water intrusion

- Ceiling tiles are bowed

- Exterior door in the hallway of building 3 leading to the play area was blocked open.

-Recommendations:

Site Based Maintenance:

- Contact Physical Plant Operations to initiate a work order to repair flooring as necessary

- Replace bowed ceiling tiles

- Ensure that all doors to the exterior remain closed. Open doors or windows allow humid untreated air into occupied environment.