

managing risk with responsibility

Telephone: 754-321-3200 Facsimile: 754-321-3290

January 15, 2	Signature on File	For Custodial Supervisor Use Only
TO:	Mr. Karlton Johnson, Principal Blanche Ely High School	Custodial Issues Addressed Custodial Issues Not Addressed
FROM:	Edward See, Project Manager Risk Management Department	
SUBJECT:	Indoor Air Quality (IAQ) Assessment FISH 080A, 801, 803, 814, 815, 819 and 84	1

On December 2, 2008 I conducted an assessment of FISH 080A, 801, 803, 814, 815, 819 and 841 at **Blanche Ely High 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.

Please ensure that your Head Facilities Serviceperson receives a copy of this correspondence so that the recommendations requiring their attention can be addressed. Within two weeks a representative from the Custodial/Grounds Department will conduct a follow-up visit to ensure that all 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 me at 754-321-3200.

cc: Sharon Airaghi, Area Superintendent
Jackie Haywood, Area Director
Jeffrey S. Moquin, Executive Director, Support Operations
Robert Bellot, Project Manager, Facilities and Construction Management
Lynn Cavall, Broward Teachers Union
Roy Jarrett, National Federation of Public and Private Employees
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

ES/tc Enc.

	E	Blanche Ely High	School		Evaluati	on Requested [November 6, 2008
Time of Day					E	valuation Date	December 2, 2008
Outdoor Condit	ions Tem	perature 6	7.3	Relative Humid	ity 33.7	Ambier	nt CO2 375
etak T	emperature p						
			ive Humidity	Range	CO2	Ran	· —
080A	70.9 7	2 - 78	41.3	30% - 60%	763	Max 700 :	> Ambient 1
Noticeable Ode	or No		isible water age / staining	Visible mi ? growt		Amount of mat affected	erial
Ceiling Type	2 x 4		Yes	Yes		4 ce	eiling tiles
Wall Type	Drywall/Pla	ster	No	No			None
Flooring	12 x 12 vir	nyl	No	No			None
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	tive Action Re	quired
Ceiling	No	Yes	Yes		Remove a	and replace cei	iling tile
Walls	Yes	No	No				
Flooring	Yes	No	No				
HVAC Supply (Grills Yes	No	No				
HVAC Return G	Grills No	Yes	Yes		Repair/rep	olace HVAC ret	urn grill
Ceiling at Supp Grills	oly Yes	No	No				
Surfaces in Ro	om Yes	No	No				
bservations							
Findings: (cor	ridor)						

0361

Location Number

0

- 4 stained ceiling tiles with visible microbial growth
- Visible rust and microbial growth on HVAC return grills

Recommendations:

Site Based Maintenance:

- Remove and replace stained ceiling tiles
- 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 cause of stained ceiling tiles and rusted HVAC return grills and repair as appropriate. Repair/replace rusted HVAC return grills as necessary.

	Blanche E	ly High School		Evaluation	Requested Nove	mber 6, 2008
Time of Day				Eva	luation Date Dece	mber 2, 2008
Outdoor Conditions	5 Temperature	67.3	Relative Humidity	33.7	Ambient CO2	375
Fish Tempo	erature Range 72 - 78	Relative Humidity	30% - 60%	CO2	Range Max 700 > Ambi	# Occupants
Noticeable Odor	No	Visible water damage / staining	Visible micr growth?		mount of material affected	
Ceiling Type	2 x 4	No	No		None	
Wall Type	Drywall/Plaster	No	No		None	
Flooring	12 x 12 vinyl	No	No		None	
	Clean Minor I			Correctiv	re Action Required	
Ceiling	Yes	No				
Walls	Yes	No				
Flooring	Yes	No				
HVAC Supply Grills	S Yes No	No				
HVAC Return Grills	Yes	No				
Ceiling at Supply Grills	Yes No	No				
Surfaces in Room	Yes No	No				
L Observations						
Findings: - No signs of water in Recommendations:	trusion or microbial g	rowth				
Site Based Maintena - Continue to monitor appropriate	ance: this location for any	signs of microbial ç	rowth as well as du	st and debris	s accumulation and c	lean as

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		Bla	anche El	y High School		Evalu	ation Requeste	d Noven	nber 6, 2008
Time of Day							Evaluation Da	te Decen	nber 2, 2008
Outdoor Cond	itions	Temp	erature	67.3	Relative Hur	nidity 33	3.7 Ami	oient CO2 [375
Fish	Temperatu	ıre Ra	nge	Relative Humidi	^{ty} Range	CO2	R	ange	# Occupants
803	69.7	72	- 78	43.1	30% - 60%	713	Max 7	00 > Ambie	ent 1
Noticeable O	dor	No		Visible water damage / staining		microbial owth?	Amount of a		
Ceiling Type		2 x 4		No		No		None	
Wall Type	Dryw	vall/Plast	er	No		No		None	
Flooring	12 >	x 12 vinyl	l	No		No		None	
	Cle	an	Minor D / Debr			Corr	ective Action	Required	
Ceiling	Y	es	No	No		Remov	e and replace	ceiling tile	
Walls	Ye	es	No	No					
Flooring	Y	es	No	No					
HVAC Supply	Grills Y	es	No	No					
HVAC Return	Grills N	lo	Yes	Yes		Repair/r	eplace HVAC	return grills	S
Ceiling at Sup Grills	oply Y	es	No	No					
Surfaces in R	oom Y	es	No	No					
L Observations									
Disservations Findings: - Visible rust on HVAC return grills - Temperature was low at the time of the assessment 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: - Evaluate cause of rusted HVAC return grills and repair as appropriate. Repair/replace rusted HVAC return grills as necessary Evaluate HVAC for proper operation and repair as appropriate to increase temperature									

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	В	lanche Ely Hig	n School		Evaluation	on Requested [November 6, 2008
Time of Day					E	valuation Date	December 2, 2008
Outdoor Condition	ns Tem	perature 6	7.3	Relative Humidit	y 33.7	Ambier	nt CO2 375
Fish Ten	nperature R	Range Rela	tive Humidity	Range	CO2	Ran	ge # Occupants
814	69.4	2 - 78	39.8	30% - 60%	609	Max 700 :	> Ambient 1
Noticeable Odor	No	_	isible water age / stainingʻ	Visible mic growth		Amount of mat affected	erial
Ceiling Type	2 x 4		Yes	No		10 ce	eiling tiles
Wall Type	Drywall/Plas	ster	No	No			None
Flooring	12 x 12 vin	yl	No	No	[None
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	tive Action Re	quired
Ceiling	Yes	No	No	F	Remove a	nd replace ceil	ing tiles
Walls	Yes	No	No				
Flooring	Yes	No	No				
HVAC Supply Gri	IIs Yes	No	No				
HVAC Return Gri	lls No	Yes	Yes	R	Repair/rep	lace HVAC retu	urn grills
Ceiling at Supply Grills	Yes	No	No				
Surfaces in Roon	n Yes	No	No				
bservations							

0361

Location Number

0

- Visible rust on HVAC return grills and all adjacent ceiling tiles have visible microbial growth
- Temperature was low at the time of the assessment

Recommendations:

Site Based Maintenance:

- Remove and replace stained ceiling tiles
- 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 cause of stained ceiling tiles and rusted HVAC return grills and repair as appropriate. Repair/replace rusted HVAC return grills as necessary.
- Evaluate HVAC for proper operation and repair as appropriate to increase temperature

	Blanche	Ely High School		Evaluation	November 6, 2008
Time of Day				Eva	December 2, 2008
Outdoor Conditions	s Temperatur	e 67.3	Relative Humidity	33.7	Ambient CO2 375
Fish Temp	Poerature Range 72 - 78	Relative Humidity	30% - 60%	CO2	Range # Occupants Max 700 > Ambient
Noticeable Odor	No	Visible water damage / staining	Visible micr growth?		Amount of material affected
Ceiling Type	2 x 4	Yes	No		10 ceiling tiles
Wall Type	Drywall/Plaster	No	No		None
Flooring	12 x 12 vinyl	No	No		None
	Clean Minor / Del		I	Correctiv	ve Action Required
Ceiling	Yes	o No	F	Remove and	d replace ceiling tiles
Walls	Yes	o No			
Flooring	Yes	o No			
HVAC Supply Grills	s Yes N	No			
HVAC Return Grills	s No Ye	Yes	R	epair/repla	ce HVAC return grills
Ceiling at Supply Grills	Yes	o No			
Surfaces in Room	Yes	No			
Dbservations					
	.C return grills and a	l adjacent ceiling tile	es have visible micro	obial growth	
Recommendations: Site Based Mainten - Remove and replace - Continue to monitor appropriate	ance: ce stained ceiling tile	s r signs of microbial o	growth as well as du	st and debri	is accumulation and clean as
Physical Plant Oper - Evaluate cause of s return grills as neces	stained ceiling tiles a	nd rusted HVAC ret	urn grills and repair	as appropri	ate. Repair/replace rusted HVAC

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	В	lanche Ely Higl	n School		Evaluat	ion Requested	November 6, 2008
Time of Day					E	Evaluation Date	December 2, 2008
Outdoor Condi	tions Tem	perature 6	7.3	Relative Humidi	ity 33.7	Ambier	nt CO2 375
Fish 819		Range Rela	tive Humidity	Range 30% - 60%	CO2 771	Ran	ge # Occupants > Ambient 1
Noticeable Od		v	isible water age / staining	Visible mi	crobial	Amount of mat	
Ceiling Type	2 x 4		Yes	No			eiling tile
Wall Type	Drywall/Plas	ster	No	No			None
Flooring	12 x 12 vin	yl	No	No			None
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	ctive Action Re	quired
Ceiling	No	Yes	Yes		Remove	and replace cei	ling tile
Walls	Yes	No	No				
Flooring	Yes	No	No				
HVAC Supply	Grills Yes	No	No				
HVAC Return	Grills No	Yes	Yes		Repair/re	place HVAC ret	urn grill
Ceiling at Sup Grills	ply Yes	No	No				
Surfaces in Ro	oom Yes	No	No				
bservations							
Findings:	og tilo ot UV/AC ro	turo arill					

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Location Number

O

- 1 stained ceiling tile at HVAC return grill
- Visible rust on HVAC return grill and light grid

Recommendations:

Site Based Maintenance:

- Remove and 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 cause of stained ceiling tile and rusted light grid and HVAC return grill and repair as appropriate. Repair/replace rusted HVAC return grill and light grid as necessary.

		Blanche Ely Hig	h School		Evaluation	n Requested	Novemb	er 6, 2008
Time of Day]			Eva	aluation Date	Decemb	er 2, 2008
Outdoor Condi	tions Te	mperature 6	67.3	Relative Humidity	33.7	Ambie	nt CO2	375
Fish	Temperature	Range Rela	ative Humidity	Range	CO2	Ran	ge #	Occupants
841	67.6	72 - 78	47.1	30% - 60%	746	Max 700	> Ambient	1
Noticeable Od	lor No		Visible water nage / staining	Visible micro growth?	bial A	Amount of mat affected	erial	
Ceiling Type	2 x 4		No	No			None	
Wall Type	Drywall/Pl	aster	No	No		None		
Flooring	12 x 12 v	inyl	No	No		None		
	Clean	Minor Dust / Debris	Needs Cleaning		Correctiv	ve Action Re	quired	
Ceiling	Yes	No	No		Replace r	missing ceilii	ng tile	
Walls	Yes	No	No					
Flooring	Yes	No	No					
HVAC Supply	Grills Yes	No	No					
HVAC Return	Grills No	Yes	Yes	Re	pair/repla	ce HVAC ret	urn grills	
Ceiling at Sup Grills	ply Yes	No	No					
Surfaces in Ro	oom Yes	No	No					
bservations								
- Temperature v Recommendati Site Based Mai - Replace missir	HVAC return grass low at the tile ions: intenance: ng ceiling tile	me of the assess		rowth as well as dus	t and debri	is accumulatio	on and clea	ın as

Physical Plant Operations:
- Evaluate cause of rusted HVAC return grills and repair as appropriate. Repair/replace rusted HVAC return grills as necessary.
- Evaluate HVAC for proper operation and repair as appropriate to increase temperature

IAQ Assessment

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