

## managing risk with responsibility

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March 10. 2011

Signature on File

TO: Mr. David Watkins, Principal

Whiddon-Rogers Education Center

FROM: Edward See, Project Manager

Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

ESE, Library, Room 1, 2, 3, 4, 5, 6, 7, 8, 18, 22

On March 4, 2011, I conducted a follow-up assessment of the ESE room, Library and rooms 1, 2, 3, 4, 5, 6, 7, 8, 18 and 22 at the Thompson Academy (off site location).. The assessment consisted of a reevaluation walkthrough of the previously identified areas to assess the current condition of the location with regard to indoor air quality. This assessment included reviewing previously generated work orders, if applicable, as well as observation of the area of concern as stated in the IAQ Assessments performed on November 5, 2010 and January 26, 2011. 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 754-321-1900.

cc: Dr. Desmond Blackburn, Area Superintendent
Jan Beal, Area Director
Jeffrey S. Moquin, Executive Director, Support Operations
Mark Howard, Assistant Principal, Whiddon-Rogers Education Center
Joe DeLillo, Project Manager, Facilities and Construction Management
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.

Thomps	son Ac	ademy -	Whiddon I	Rogers	Off Site			Evaluati	ion Re	quested	Mar	ch 4, 20	11
Time of Day [	5:3	30 pm						E	Evaluat	ion Date [	Mar	ch 4, 20	11
Outdoor Condi	itions	Те	emperature	<b>7</b> 5	8.9	Relative Hu	ımidity	68.7	•	Ambier	nt CO2	384	
ESE		69	Range 72 - 78		55.4 isible water	Range 30% - 60%	le microl	<b>CO2</b> 562		Rang Max 700 :	> Ambie	# Occu	pants 2
Noticeable Od		No			age / staining		rowth?	Diai		erial affec	ted		
Ceiling Type		2 x 2 La			No	Ĺ	No				None		<b>-</b>
Wall Type		Drywa			No	<u>_</u>	No				None		
Flooring		Carpe	t		No		No				None		
	(	Clean	Minor / Deb		Needs Cleaning			Correc	ctive A	action Re	quired		
Ceiling		Yes	No	<b>)</b>	No								
Walls		Yes	No	<u> </u>	No								
Flooring		Yes	No		No								
HVAC Supply	Grills	Yes	No	<b>)</b>	No								
HVAC Return	Grills	Yes	No		No								
Ceiling at Sup Grills	ply	Yes	No	<b>)</b>	No								
Surfaces in Ro	oom	Yes	No		No								
bservations													
Findings (Build - Temperature v - New carpet in: Building Owne	was lov stalled				ment								
- Adjust thermo - Continue to m appropriate	stat to				of microbial (	growth as we	ell as dus	st and d	ebris a	accumulat	tion and	clean as	

Thompson	Academy - Whiddor	Rogers Off Site		<b>Evaluation Requested</b>	March 4, 2011				
Time of Day	5:30 pm			<b>Evaluation Date</b>	March 4, 2011				
Outdoor Condition	ns Temperatu	re 78.9	Relative Humidity	68.7 Ambie	nt CO2 384				
Fish Tem Library  Noticeable Odor  Ceiling Type  Wall Type	Perature Range 64.8 72 - 78  No  2 x 2 Lay In  Drywall	Relative Humidity 48.3 Visible water damage / staining No No	30% - 60% Visible micro	bial Amount o	> Ambient 7				
Flooring	Vinyl	No	No		None				
Ceiling Walls Flooring HVAC Supply Gri	Yes 1	Dust Needs Cleaning No		Corrective Action Re	equired				
HVAC Return Gri	Is Yes	lo No							
Ceiling at Supply Grills	Yes	No No							
Surfaces in Room	Yes	o No							
- Temperature was  Building Owner:  - Adjust thermostat	Findings (Building not owned by SBBC)  - Temperature was low at the time of the assessment  Building Owner:  - Adjust thermostat to increase temperature  - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as								

Thompson	Academy - Whide	don Rogers Off Site		Evaluation Requested	March 4, 2011
Time of Day	5:30 pm			Evaluation Date	March 4, 2011
Outdoor Condition	ns Tempera	ature 78.9	Relative Humidity	68.7 Ambier	nt CO2 384
Noticeable Odor Ceiling Type Wall Type	70.9 72 - 7  No  2 x 2 Lay In  Drywall	8 52.6  Visible water damage / staining No No	30% - 60% Visible micro	obial Amount of material affec	> Ambient 10 ted None None
Flooring	Vinyl	No	No		None
Ceiling		nor Dust Needs Debris Cleanin No No		Corrective Action Re	quired
Walls	Yes	No No			
Flooring	Yes	No No			
HVAC Supply Gri	IIs Yes	No No			
HVAC Return Gri	lls No	Yes	Clear	ned at the time of the a	ssessment
Ceiling at Supply Grills	Yes	No No			
Surfaces in Room	Yes	No No			
bservations					
Building Owner:	HVAC return grill -	cleaned at the time of		est and debris accumulat	tion and clean as

		IAQ As	sessment	<b>Location Number</b>	
Thompson Ad	cademy - Whiddon F	Rogers Off Site		<b>Evaluation Requested</b>	March 4, 2011
Time of Day 5:	30 pm			<b>Evaluation Date</b>	March 4, 2011
<b>Outdoor Conditions</b>	Temperature	78.9	Relative Humidity	68.7 Ambie	ent CO2 384
	73.9 <b>Range</b>	Relative Humidity 54.9	Range 30% - 60%	CO2 Ran 604 Max 700	nge # Occupants > Ambient 10
Noticeable Odor	Yes	Visible water damage / staining	Visible micro growth?	/ till dill d	
Ceiling Type	2 x 2 Lay In	No	No		None
Wall Type	Drywall	No	No		None
Flooring	Vinyl	No	No		None
	Clean Minor I / Deb	ris Cleaning		Corrective Action Re	equired
Ceiling					
Walls	Yes No	No			
Flooring	Yes	No			
HVAC Supply Grills	Yes	No			
HVAC Return Grills	No	Yes	Clea	ned at the time of the	assessment
Ceiling at Supply Grills	Yes	No			
Surfaces in Room	Yes No	No			
L Observations					
		ned at the time of t	he assessment		
Building Owner: - Continue to monitor appropriate	this location for any	signs of microbial	growth as well as du	ust and debris accumula	ation and clean as

Thompson Aca	demy - Whiddon Rogers Off Site	Evaluation Requested	March 4, 2011
Time of Day 5:30	) pm	Evaluation Dat	e March 4, 2011
Outdoor Conditions	Temperature 78.9	Relative Humidity 68.7 Amb	ient CO2 384
Fish Tempera	Traingo Traininas,		ange # Occupants
		30% - 60% 541 Max 70 Visible microbial Amount	
Noticeable Odor	damage / staining		ected
	2 x 2 Lay In No	No	None
Wall Type	Drywall No	No	None
Flooring	Vinyl	No	None
С	lean Minor Dust Needs / Debris Cleaning	Corrective Action	Required
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 Supply [Grills	Yes No No		
Surfaces in Room [	Yes No No		
oservations			
Findings (Building no - Temperature was low - Dust on HVAC ducts i	at the time of the assessment		
Building Owner: - Adjust thermostat to ir - Clean HVAC ducts in - Continue to monitor thappropriate	mechanical room	growth as well as dust and debris accumu	ılation and clean as

Thomps	on Academy - V	Vhiddon Rogers	Off Site		Evaluation Requested	March 4, 2011
Time of Day	5:30 pm				<b>Evaluation Date</b>	March 4, 2011
Outdoor Condit	tions Tem	perature 7	8.9 R	elative Humidity	68.7 Ambie	nt CO2 384
Fish T Room 4 Noticeable Odd	69 7	2 - 78 V	isible water	Range 0% - 60% Visible micro	bial Amount o	> Ambient 10
Ceiling Type	2 x 2 Lay		age / staining?	growth?	material affec	ted None
Wall Type	Drywall		No	No		None
Flooring	8 x 8		No	No		None
	Clean	Minor Dust / Debris	Needs Cleaning		Corrective Action Re	equired
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 Supp Grills	ply Yes	No	No			
Surfaces in Ro	om Yes	No	No			
oservations						
Findings (Build - 1/4 inch gap at	ing not owned baseboard beh	ind window - cau	ılked at the tim	e of the assessm	ent	
Building Owne - Adjust thermos - Continue to mo appropriate	stat to increase t		of microbial gro	owth as well as du	st and debris accumula	tion and clean as

<u> I nomps</u>	on Academy - W	/hiddon Rogers	Off Site		Evaluation Rec	luesieu	March 4, 2011
Time of Day	5:30 pm				Evaluati	on Date	March 4, 2011
Outdoor Condit	ions Tem	perature 7	8.9 R	elative Humidity	68.7	Ambient (	384
Room 5  Noticeable Ode Ceiling Type	72.6 7. No 2 x 2 Lay	2 - 78 V dam	ive Humidity  44.8  3(isible water age / staining?	0% - 60% Visible micro growth?	bial A	Range Max 700 > A mount of erial affected No	ne
Wall Type	Drywall		No	No		Noi	ne
Flooring	Vinyl		No	No		No	ne
	Clean	Minor Dust / Debris	Needs Cleaning		Corrective A	ction Requi	ired
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 Supp Grills	oly Yes	No	No				
Surfaces in Ro	om Yes	No	No				
bservations							
Building Owne	tified at the time <u>r:</u>	of the assessm		owth as well as du	st and debris a	ccumulation	and clean as

i nomps	on Academy - W	hiddon Rogers	Off Site		Evaluation Requeste	d March 4, 2011
Time of Day	5:30 pm				Evaluation Da	te March 4, 2011
Outdoor Condit	ions Tem	perature 7	'8.9 R	Relative Humidity	68.7 Amb	pient CO2 384
Fish T Room 6  Noticeable Ode Ceiling Type	70.6	2 - 78 dam	52.8 3 /isible water age / staining?	80% - 60% Visible micro	419 Max 70	
Wall Type	Drywall		No	No		None
Flooring	Vinyl		No	No		None
	Clean	Minor Dust / Debris	Needs Cleaning		Corrective Action	Required
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 Supp Grills	oly Yes	No	No			
Surfaces in Ro	om Yes	No	No			
bservations						
Findings (Build - Previously ider Building Owne	<u>r:</u>	rs. Doors are i	•	of being replaced.	st and debris accumi	ulation and clean as

Thompson Ad	Thompson Academy - Whiddon Rogers Off Site Evaluation Requested March 4, 2011							
Time of Day 5:	30 pm			<b>Evaluation Date</b>	March 4, 2011			
Outdoor Conditions	Temperature	78.9	Relative Humidity	68.7 Ambie	nt CO2 384			
Fish Tempe		Relative Humidity	Range	CO2 Ran				
Room 7 6	58.6 <b>72 - 78</b>	51.2	30% - 60%		> Ambient 10			
Noticeable Odor	No	Visible water damage / staining	Visible micro growth?	bial Amount o material affec				
Ceiling Type	2 x 2 Lay In	No	No		None			
Wall Type	Drywall	No	No		None			
Flooring	Vinyl	No	No		None			
	Clean Minor			Corrective Action Re	equired			
Ceiling	Yes	No						
Walls	Yes	No						
Flooring	Yes	No						
<b>HVAC Supply Grills</b>	Yes	No						
HVAC Return Grills	Yes	No						
Ceiling at Supply Grills	Yes	No						
Surfaces in Room	Yes	No						
oservations								
Findings (Building r - Temperature was lo - Dust and debris on t	w at the time of the	assessment	e time of the assess	sment				
Building Owner:  - Adjust thermostat to  - Continue to monitor appropriate			growth as well as du	st and debris accumula	tion and clean as			

			IAQ As	sessment	Locati	on Number	
Thomps	on Academy -	Whiddon Ro	gers Off Site		Evaluat	ion Requested	March 4, 2011
Time of Day	5:30 pm				E	Evaluation Date	March 4, 2011
Outdoor Condit	ions Te	emperature	78.9	Relative Hum	nidity 68.7	7 Ambie	nt CO2 384
Fish To	emperature	Range [	Relative Humidity	Range	CO2	Rar	nge # Occupant
Room 8	67.1	72 - 78	64.3	30% - 60%	543	Max 700	> Ambient 10
Noticeable Odd			Visible water damage / staining	)? gro	microbial owth?	Amount o material affect	ted
Ceiling Type	2 x 2 La		No	<u> </u>	No		None
Wall Type	Drywa		No	<u> </u>	No		None
Flooring	Vinyl		No	N	No		None
	Clean	Minor Du / Debris			Corre	ctive Action Re	equired
Ceiling	Yes	No	No				
Walls	Yes	No	No				
Flooring	Yes	No	No				
HVAC Supply 6	Grills Yes	No	No				
HVAC Return G	Grills Yes	No	No				
Ceiling at Supp Grills	oly Yes	No	No				
Surfaces in Roo	om Yes	No	No				
Dbservations							
Findings (Build - Temperature w							
· '			resulting in a slig	htly elevated h	umidity level		
Building Owner - Adjust thermos - Continue to mo appropriate	tat to increase			growth as well	as dust and c	lebris accumula	tion and clean as
I							

Thompson A	cademy - Whiddon F	Rogers Off Site		Evaluation Requested	March 4, 2011
Time of Day 5:	30 pm			<b>Evaluation Date</b>	March 4, 2011
Outdoor Conditions	Temperature	78.9	Relative Humidity	68.7 Ambie	nt CO2 384
	Prature Range 72 - 78	Relative Humidity 57.3	30% - 60%		> Ambient 2
Noticeable Odor	No	Visible water damage / staining	Visible micro growth?	bial Amount o material affec	
Ceiling Type	2 x 2 Lay In	No	No		None
Wall Type	Drywall	No	No		None
Flooring	Carpet	No	No		None
	Clean Minor I	ris Cleaning		Corrective Action Re	equired
Ceiling	Yes No	No			
Walls	Yes	No			
Flooring	Yes	No			
HVAC Supply Grills	Yes	No			
HVAC Return Grills	Yes	No			
Ceiling at Supply Grills	Yes	No			
Surfaces in Room	Yes No	No			
oservations					
Findings (Building r - Temperature was lo - New carpet installed	w at the time of the	C) assessment			
Building Owner: - Adjust thermostat to - Continue to monitor appropriate			growth as well as du	st and debris accumula	tion and clean as

<u> Thomps</u>	on Academy - W	hiddon Rogers	S Off Site		Evaluation Re	equested [	March 4, 2011
Time of Day	5:30 pm				Evalua	ition Date [	March 4, 2011
Outdoor Condit	ions Tem	perature 7	78.9 R	Relative Humidity	68.7	Ambier	nt CO2 384
Room 22  Noticeable Ode	70.7 <b>7</b> 2	2 - 78	/isible water page / staining?			Amount of terial affect	> Ambient 3
Ceiling Type Wall Type	Drywall		No	No			None
Flooring	Drywall Carpet		No	No			
Tiooning [	Clean	Minor Dust / Debris	Needs Cleaning	No	Corrective		quired
Ceiling	Yes	No	No				
Walls	Yes	No	No				
Flooring	Yes	No	No				
HVAC Supply (	Grills Yes	No	No				
HVAC Return C	Grills Yes	No	No				
Ceiling at Supp Grills	oly Yes	No	No				
Surfaces in Ro	om Yes	No	No				
bservations							
Building Owne	tified at the time	of the assessn		owth as well as du	st and debris	accumulat	ion and clean as