

Aston A. Henry, Supervisor Risk Management Department

# managing risk with responsibility

 Telephone:
 754 321-1900

 Fax:
 754 321-1917

July 12, 2012	Signature on File	For Custodial Supervisor Use Only
TO:	Paul Baugh, Assistant Principal Nova Middle School	Custodial Issues Addressed Custodial Issues Not Addressed
FROM:	Richard Rosa, Project Manager Facilities and Construction Management	
SUBIECT:	Indoor Air Quality (IAQ) Assessment	

On July 2, 2012, I conducted an assessment at **Nova Middle School**. Attached are findings and recommendations for further assessment, remediation, or corrective actions needed.

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. In an attempt to separate IAQ issues from general maintenance items, the attached assessment may contain direction for site based staff to generate a work order through COMPASS. Within two weeks a representative from the Custodial/Grounds Department will conduct a follow-up visit to ensure that all site based custodial 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 us at 754-321-1907.

cc: Directors, School Performance & Accountability Shelley Meloni, Executive Director, Facilities and Construction Management Mark Dorsett, Acting Director, Physical Plant Operations Division, Maintenance Sonja Coley, Project Manager III, Facilities and Construction Management Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division Aston Henry, Supervisor, Risk Management Broward Teachers Union Federation of Public Employees

RR/tc Enc.

	IAQ Assess	ment		
N	Nova Middle Evaluation Date	te July 2, 2012	Time of Day	9:45
Outdoor Conditions Tempera	ature 82.3 Relative	e Humidity 78.1	Ambient CO2 4	11
		Range         CO <sup>2</sup> % - 60%         508		ccupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' x 4'WallsDrywallFloor12" x 12" Vinyl	Yes No No	No No	< 1 sq ft	
Ceiling Clean No Walls Clean Yes Flooring Clean Yes Room Surfaces No	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply	No	HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Room Surfaces No Clean	Ceiling at Supply Grills Clean	Νο		
Trash RemovedYesSigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	No No N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No
Mechanical Equipment Location	HVAC system is recessed in	drop ceilng	Mechanical Room Clean	N/A
Filters Installed Properly       N/A         Condensate Pan Clean       N/A		N/A N/A	Inside of HVAC Unit Clean	N/A
Fresh Air Intake Location Pollutant Sources Near Air Intake	Inside classroom No	▼	Fresh Air Intake Free of Obstruction	
Observations				
Stain on ceiling tile is located ov N/A-Not accessible	er lab hood			

Replace stained ceiling tile after repair	▼
Classroom is due for a summer cleaning	▼
Clean HVAC supply grills with Wexcide	▼
Clean dust from ceiling tiles or replace	▼
Ensure water is poured down drains regularly	▼
	▼
	▼
	▼

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Evaluate and repair cause of stained ceiling tiles	▼
Evaluate for normal function of exhaust fan	▼
Repair HVAC to reduce humidity level	▲
	▼
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	▼
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	IAQ Assess	ment		
N	Nova Middle Evaluation Da	te July 2, 2012	Time of Day 10	0:00
Outdoor Conditions Tempera	ature 82.3 Relativ	e Humidity 78.1	Ambient CO2 4	11
	inge Relative Humidity - 78 68.2 30	Range         CO <sup>2</sup> 0% - 60%         491		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' x 4'WallsDrywallFloor12" x 12" Vinyl	Yes No No	No No	< 1 sq ft	
Ceiling CleanNoWalls CleanYesFlooring CleanYes	HVAC Supply Grills Clean Inside of Supply Duct Clean	Yes	HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	No		
Trash RemovedYesSigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	No No N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location Filters Installed Properly N/A Condensate Pan Clean N/A		drop ceilng N/A N/A	Mechanical Room Clean Inside of HVAC Unit Clean	N/A N/A
Fresh Air Intake Location Pollutant Sources Near Air Intake	Inside classroom No	<ul> <li>▼</li> </ul>	Fresh Air Intake Free of Obstruction	
Observations				
N/A-Not accessible				

Replace stained ceiling tile after repair	▼
Clean dust from ceiling tiles or replace	▼
Ensure water is poured down drains regularly	▼
	▼
	▼
	▼
	▼
	▼

Evaluate and repair cause of stained ceiling tiles	▼
Evaluate for normal function of exhaust fan	▼
Repair HVAC to reduce humidity level	▼
Set temperature to 72 - 78 degrees	▼
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	▼
	▼
	▼

	IAQ Assess	ment		
N	lova Middle Evaluation Dat	te July 2, 2012	Time of Day 10	0:15
Outdoor Conditions Tempera	ture 82.3 Relative	e Humidity 78.1	Ambient CO2 4	11
		Range         CO <sup>2</sup> % - 60%         443		ccupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' x 4'WallsDrywallFloor12" x 12" Vinyl	No No No	No No		
Ceiling Clean No Walls Clean Yes Flooring Clean Yes	HVAC Supply Grills Clean Inside of Supply Duct Clean	Yes Yes	HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Room Surfaces No Clean	Ceiling at Supply Grills Clean	No		
Trash RemovedYesSigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	No No N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location Filters Installed Properly N/A Condensate Pan Clean N/A			Mechanical Room Clean Inside of HVAC Unit Clean	N/A N/A
Fresh Air Intake Location Pollutant Sources Near Air Intake	Inside classroom No	<ul><li>▼</li></ul>	Fresh Air Intake Free of Obstruction	
Observations N/A-Not accessible				

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Classroom is due for a summer cleaning	▼
Clean dust from ceiling tiles or replace	▼
Ensure water is poured down drains regularly	▼
	▼
	▼
	▼
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	▼

Evaluate for normal function of exhaust fan	▼
Repair HVAC to reduce humidity level	▼
Set temperature to 72 - 78 degrees	▼
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	IAQ Assess	ment		
N	Nova Middle Evaluation Date	te July 2, 2012	Time of Day 10	0:30
Outdoor Conditions Tempera	ature 82.3 Relative	e Humidity 78.1	Ambient CO2 41	11
		Range         CO <sup>2</sup> % - 60%         446		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' x 4'WallsDrywallFloor12" x 12" Vinyl	Yes No	Yes No No	11 ceiling tiles	
Ceiling Clean No Walls Clean Yes Flooring Clean Yes	HVAC Supply Grills Clean Inside of Supply Duct Clean	No Yes	HVAC Return Grills Clean Inside of Return Duct Clean	Yes Yes
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Νο		
Trash RemovedYesSigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	No No N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location Filters Installed Properly N/A Condensate Pan Clean N/A			Mechanical Room Clean Inside of HVAC Unit Clean	N/A N/A
Fresh Air Intake Location Pollutant Sources Near Air Intake	Inside classroom No	<ul><li>▼</li></ul>	Fresh Air Intake Free of Obstruction	
Observations				
Stained ceiling tiles located thro N/A-Not accessible	ughout classroom			

Replace stained ceiling tiles after repairs	▼
Clean HVAC supply grills with Wexcide	▼
Clean dust from ceiling tiles or replace	▼
Ensure water is poured down drains regularly	▼
	▼
	▼
	▼
	▼

Evaluate and repair cause of stained ceiling tiles
Evaluate for normal function of exhaust fan
Repair HVAC to reduce humidity level
Set temperature to 72 - 78 degrees

	IAQ Assess	ment		
N	Nova Middle Evaluation Da	te July 2, 2012	Time of Day	0:45
Outdoor Conditions Tempera	ature 82.3 Relative	e Humidity 78.1	Ambient CO2 4	11
	ange Relative Humidity - 78 79.9 30	Range         CO <sup>2</sup> % - 60%         431		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' x 4'WallsDrywallFloor12" x 12" Vinyl	Yes           No           No	Yes No No	6 sq ft	
Ceiling Clean No Walls Clean Yes Flooring Clean Yes	HVAC Supply Grills Clean Inside of Supply Duct Clean	No	HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Room Surfaces No Clean	Ceiling at Supply Grills Clean	No		
Trash RemovedYesSigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	No No N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location Filters Installed Properly N/A Condensate Pan Clean N/A	-	drop ceilng N/A N/A	Mechanical Room Clean Inside of HVAC Unit Clean	N/A N/A
Fresh Air Intake Location Pollutant Sources Near Air Intake	Inside classroom No	<ul><li>▼</li></ul>	Fresh Air Intake Free of Obstruction	
Observations				
Stained ceiling tiles located thro N/A-Not accessible	ughout classroom			

Corrective Actions to be Completed by Site Based S	staff	
Replace stained ceiling tiles after repair	▼	
Classroom is due for a summer cleaning	▼	
Clean HVAC supply grills with Wexcide	▼	
Clean dust from ceiling tiles or replace	▼	
Ensure water is poured down drains regularly	▼	
	▼	
	▼	
	▼	

Evaluate and repair cause of stained ceiling tiles	▼
Evaluate for normal function of exhaust fan	▼
Repair HVAC to reduce humidity level	▼
Set temperature to 72 - 78 degrees	▼
	▼
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	IAQ Assessi	ment		
N	ova Middle Evaluation Dat	te July 2, 2012	Time of Day	1:00
Outdoor Conditions Temperat	ture 82.3 Relative	e Humidity 78.1	Ambient CO2 4	11
FishTemperatureRar70977.172 -		Range         CO <sup>2</sup> % - 60%         429		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 4'	Yes	No	4 sq ft	
Walls Drywall	No	No		
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean No Walls Clean Yes	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	Yes
Flooring Clean No	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Room Surfaces No Clean	Ceiling at Supply Grills Clean	Νο		
Trash Removed No	Exhaust Fans Working	No	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No	Drain Traps Wet	No		
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location	HVAC system is recessed in	drop ceilng	Mechanical Room Clean	N/A
Filters Installed Properly N/A	Filters Clean	N/A	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Fresh Air Intake Location	Inside classroom	▼	Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake	Νο	▼	of Obstruction	
Observations				
Stained ceiling tiles located throun N/A-Not accessible	ughout classroom			
Cork board that is attached to the	e wall needs to be discarded d	lue to moisture damag	e	

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Replace stained ceiling tile after repair	▼
Classroom is due for a summer cleaning	▼
Clean HVAC supply grills with Wexcide	▼
Clean dust from ceiling tiles or replace	▼
Ensure water is poured down drains regularly	▼
The floor is due for summer cleaning	▼
Remove cork board and discard	▼
	▼

Evaluate and repair cause of stained ceiling tiles	▼
Evaluate for normal function of exhaust fan	▼
Repair HVAC to reduce humidity level	▼
Set temperature to 72 - 78 degrees	▼
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	IAQ	Assessment			
	Nova Middle Eva	aluation Date July	y 2, 2012	Time of Day 1	1:15
Outdoor Conditions Tempe	erature 82.3	Relative Humidity	78.1	Ambient CO2 4	11
	RangeRelative Hu72 - 7879.9	midity Range	<b>CO</b> <sup>2</sup> 426	Range # Oo MAX 700 > Ambient	ccupants
Noticeable Odor No	Visible water d staining	anage/	microbial owth?	Amount of material affected	
Ceiling 2' x 4'	No		No		
Walls Drywall	No		No		
Floor 12" x 12" Vinyl	No		No		
Ceiling Clean No Walls Clean Yes	HVAC S Grills Cl			HVAC Return Grills Clean	Yes
Flooring Clean No	Inside o Duct Cle	of Supply Yes		Inside of Return Duct Clean	Yes
Room Surfaces No	Ceiling a Grills Cl	at Supply No			
Trash Removed No	Exhaust Fans			approved Chemicals / aners in Room	No
Signs of Pests No		Traps Wet No	A	ir Fresheners	No
Room Cluttered No	Food if Stored i in Sealed Conta			Room	
Mechanical Equipment Location	n HVAC system is re	cessed in drop ceiln	g Mec	chanical Room Clean	N/A
Filters Installed Properly	/A Filte	ers Clean N/A	Inside	e of HVAC Unit Clean	N/A
Condensate Pan Clean N	/A Cooling C	coil Clean N/A			
Fresh Air Intake Location	Inside classroom			Fresh Air Intake Free	
Pollutant Sources Near Air Intake	Νο		C	of Obstruction	
Observations					
N/A-Not accessible					

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Clean dust from ceiling tiles or replace	▼
Classroom is due for a summer cleaning	▼
Ensure water is poured down drains regularly	▼
The floor is due for summer cleaning	▼
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	▼
	▼
	▼

Evaluate for normal function of exhaust fan	▼
Repair HVAC to reduce humidity level	▼
Repair HVAC to Reduce Humidity LevelsSet	▼
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	IAQ Assessi	ment		
Nov	va Middle Evaluation Dat	te July 2, 2012	Time of Day 1	1:30
Outdoor Conditions Temperatu	ire 82.3 Relative	e Humidity 78.1	Ambient CO2 4	11
Fish         Temperature         Range           711         76.4         72 - 7		Range CO % - 60% 446		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 4'	No	No		
Walls Drywall	Νο	No		
Floor 12" x 12" Vinyl	Νο	No		
Ceiling Clean No Walls Clean Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Flooring Clean No	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Room Surfaces No Clean	Ceiling at Supply Grills Clean	Νο		
Trash Removed No	Exhaust Fans Working	No	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No	Drain Traps Wet	Νο	Air Fresheners	
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	in Room	No
Mechanical Equipment Location	HVAC system is recessed in	drop ceilng	Mechanical Room Clean	N/A
Filters Installed Properly N/A	Filters Clean	N/A	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Fresh Air Intake Location	nside classroom	▼	Fresh Air Intake Free	
Pollutant Sources Near Air	10	▼	of Obstruction	
Observations				
N/A-Not accessible				

Clean dust from ceiling tiles or replace	▼
Classroom is due for a summer cleaning	▼
Ensure water is poured down drains regularly	▼
The floor is due for summer cleaning	▼
	▼
	▼
	▼
	▼

Evaluate for normal function of exhaust fan	▼
Repair HVAC to reduce humidity level	▼
Set temperature to 72 - 78 degrees	▼
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	▼

	IAQ Assessi	ment		
N	ova Middle Evaluation Dat	te July 2, 2012	Time of Day 1	1:45
Outdoor Conditions Temperat	ture 82.3 Relative	e Humidity 78.1	Ambient CO2 41	11
Fish         Temperature         Rar           713         77.9         72 -		Range         CO <sup>2</sup> % - 60%         421		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 4'	Yes	Yes	9 sq ft	
Walls Drywall	No	No		
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean No Walls Clean Yes	HVAC Supply Grills Clean	Νο	HVAC Return Grills Clean	Yes
Flooring Clean No	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Room Surfaces No Clean	Ceiling at Supply Grills Clean	Νο		
Trash Removed No	Exhaust Fans Working	No	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No	Drain Traps Wet	No		
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location	HVAC system is recessed in	drop ceilng	Mechanical Room Clean	N/A
Filters Installed Properly N/A	Filters Clean	N/A	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Fresh Air Intake Location	Inside classroom	▼	Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake	Νο	▼	of Obstruction	
Observations				
Stained ceiling tiles located throun N/A-Not accessible	ighout storage room.			
This room is the material storage	room located in the middle of	f all the classrooms.		

Corrective Actions to be Completed by Site Based S	Staff	
Replace stained ceiling tile after repair	▼	
Room is due for a summer cleaning	▼	
Clean HVAC supply grills with Wexcide	▼	
Clean dust from ceiling tiles or replace	▼	
Ensure water is poured down drains regularly	▼	
The floor is due for summer cleaning	▼	
	▼	
	▼	

Evaluate and repair cause of stained ceiling tiles	▼
Evaluate for normal function of exhaust fan	▼
Repair HVAC to reduce humidity level	▼
Set temperature to 72 - 78 degrees	▼
	▼
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