THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

FACSIMILE: (754) 321-4285

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| July 26, 2017 | Signature on File | For Custodial Supervisor Use Only |
|---------------|---|--|
| TO: | Janet Phelps, Principal Pasadena Lakes Elementary | Custodial Issues Addressed Custodial Issues Not Addressed |
| FROM: | Alison Witoshynsky, Project Manager Environmental Health & Safety Department | |
| SUBJECT: | Indoor Air Quality (IAQ) Assessment | |

On July 24, 2017, I conducted an assessment at **Pasadena Lakes Elementary 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 754-321-4200.

AW:smn Enc.

cc: Sam Bays, Director, Maintenance Operations
Shelley Meloni, Director, Pre-Construction
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
Greg Neiman, Area Supervisor, Zone 1
Kurt Wirz, Area Manager Trades
Gerald Devio, Supervisor II Custodial
Benjamin Osborne, Supervisor II Custodial
Mark Murray, Supervisor II Custodial
Broward Teachers Union

Federation of Public Employees

| Pasadena Lakes Elementary Ev | aluation Da | July 24, | 2017 | Time of Day 10 | :30 AM |
|--|------------------------|----------------------|-----------------|---|----------|
| Outdoor Conditions Temperature | Relativ | e Humidity | | Ambient CO2 | |
| Fish Temperature Range Relative Hu | <u> </u> | Range 0% - 60% | CO ² | Range # C MAX 700 > Ambient | ccupants |
| Noticeable Odor Visible water of staining | | Visible microgrowth? | | Amount of material affected | |
| Ceiling 2' X 4' Lay in Yes | | Yes | | on drywall fire ceil | ing |
| Walls Drywall No | | No | | | |
| Floor 12" x 12" Vinyl No | | No | | | |
| Ceiling Clean HVAC S Grills C | | | | HVAC Return Grills Clean | |
| Flooring Clean Inside of Duct C | of Supply lean | | | Inside of Return Duct Clean | |
| Room Surfaces Ceiling Clean Grills C | at Supply Clean | | | | |
| Trash Removed Exhaust Fan Signs of Pests Drain | s Working Traps Wet | | | Jnapproved Chemicals / Cleaners in Room | |
| Room Cluttered Food if Stored in Sealed Cont | in Room is | | | Air Fresheners in Room | |
| Mechanical Equipment Location | | | N | Mechanical Room Clean | |
| Filters Installed Properly Filt | ers Clean | | Ins | side of HVAC Unit Clean | |
| Condensate Pan Clean Cooling | Coil Clean | | | | |
| Fresh Air Intake Location Pollutant Sources Near Air Intake | | | ▼ | Fresh Air Intake Free of Obstruction | |
| Observations | | | | | |
| Roof leaks causing water damage to and deterioration of the fire ceiling and repair of the roof is needed to | | | | tile drop ceiling. Rep | lacement |
| Near EAST door, over glass block wall | | | | | |
| Corrective Actions to be Completed by Site Based S | Staff | Compositi | vo Actions | to be Completed by D | |
| Controlled Actions to be completed by one based to | V | | | to be Completed by P s (J818541/J818550) | ▼ |
| | ▼ | | | use of stained ceiling | - |
| | ▼ | | | ce fire ceiling drywall upon repair, cuts need | ded ▼ |
| | ▼ | | | , | ▼ |
| | ▼ | | | | ▼ |
| | V | | | | ▼ |

| Pasadena Lakes Elementary Ev | aluation Da | July 24, | 2017 | Time of Day 10 | :30 AM |
|--|------------------------|--------------------------|-----------------|--|----------|
| Outdoor Conditions Temperature | Relativ | e Humidity | | Ambient CO2 | |
| Fish Temperature Range Relative Ho | i | Range 0% - 60% | CO ² | Range # O MAX 700 > Ambient | ccupants |
| Noticeable Odor Visible water staining | | Visible micro growth? | | Amount of material affected | |
| Ceiling 2' X 4' Lay in Yes | | Yes | | on drywall fire ceili | ng |
| Walls Drywall No | | Yes | | column, above ceili | ng |
| Floor 12" x 12" Vinyl No | | No | | | |
| Ceiling Clean HVAC Grills C | Clean | | | HVAC Return Grills Clean | |
| Flooring Clean Inside Duct C | of Supply lean | | | Inside of Return Duct Clean | |
| Room Surfaces Ceiling Clean Grills C | ı at Supply Clean | | | | |
| Trash Removed Exhaust Fan Signs of Pests Drain | s Working Traps Wet | | | Jnapproved Chemicals / Cleaners in Room | |
| Room Cluttered Food if Stored in Sealed Cont | in Room is | | | Air Fresheners in Room | |
| Mechanical Equipment Location | | | | Mechanical Room Clean | |
| Filters Installed Properly Filt | ters Clean | | Ins | side of HVAC Unit Clean | |
| Condensate Pan Clean Cooling | Coil Clean | | | | |
| Fresh Air Intake Location Pollutant Sources Near Air Intake | | | V | Fresh Air Intake Free of Obstruction | |
| Observations | | | | | |
| Roof leaks causing water damage to and deteriorati of the fire ceiling and repair of the roof is needed to | | | | tile drop ceiling. Repl | acement |
| THREE LOCATIONS, 2'x4'; ~ 10' x 4'; ~8'x4' Along | NORTH w | all, starting at N | IE corner. | | |
| Connective Actions to be Commisted by Cita Based | Ct-ff | • | | | |
| Corrective Actions to be Completed by Site Based | Statt ▼ | | | to be Completed by Pl Leaks (J795005) | PO ▼ |
| | ▼ | | - | use of stained ceiling | tile ▼ |
| | ▼ | | | ce fire ceiling drywall | ▼ |
| | ▼ | install new o | ceiling tile | upon repair, cuts need | led ▼ |
| | ▼ | | | | ▼ |
| | ▼ | | | | ▼ |
| | ▼ | | | | ▼ |

| Pasadena Lakes Ele | ementary Evaluation | Date July 24, 2017 | Time of Day 10:30 AM |
|---|---|---------------------------|---|
| Outdoor Conditions Temperatur | e Rela | tive Humidity | Ambient CO2 |
| Fish Temperature Range 115 72 - 7 | | Range CO ² | Range # Occupants MAX 700 > Ambient |
| Noticeable Odor | Visible water damage / staining? | Visible microbial growth? | Amount of material affected |
| Ceiling 2' X 4' Lay in | Yes | Yes | on drywall fire ceiling |
| Walls Drywall | No | Yes | column, above ceiling |
| Floor 12" x 12" Vinyl | No | No | |
| Ceiling Clean Walls Clean | HVAC Supply Grills Clean | | HVAC Return Grills Clean |
| Flooring Clean | Inside of Supply Duct Clean | У | Inside of Return Duct Clean |
| Room Surfaces Clean | Ceiling at Suppl Grills Clean | ly | |
| Trash Removed | Exhaust Fans Workin | | Unapproved Chemicals / Cleaners in Room |
| Signs of Pests | Drain Traps W | | Air Fresheners |
| Room Cluttered | Food if Stored in Room in Sealed Containers | is | in Room |
| Mechanical Equipment Location | | | Mechanical Room Clean |
| Filters Installed Properly | Filters Clear | n | Inside of HVAC Unit Clean |
| Condensate Pan Clean | Cooling Coil Clea | ın | |
| Fresh Air Intake Location | | ▼ | Fresh Air Intake Free |
| Pollutant Sources Near Air Intake | | ▼ | of Obstruction |
| Observations | | | |
| Roof leaks causing water damage t of the fire ceiling and repair of the r | | | ng tile drop ceiling. Replacement |
| LOCATIONS continuation of areas i | in FISH 113, 2'x3'; 3'x3' | Along SOUTH wall, starti | ng at SE corner. |
| | | | |
| Corrective Actions to be Complete | | | ns to be Completed by PPO |
| | ▼ | <u> </u> | of Leaks (J795005) ▼ cause of stained ceiling tile ▼ |
| | ▼ | _ - | cause of stained ceiling tile ▼ blace fire ceiling drywall ▼ |
| | ▼ | | ile upon repair, cuts needed |
| | ▼ | stan new coming to | me upon repair, cuts needed ▼ |
| | ▼ | | ▼ |
| | ▼ | | ▼ |
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| Pasadena Lakes Elementary Ev | aluation Da | te July 24 | 1, 2017 | Time of Day 10:30 AM | М |
|--|--|-----------------------|----------|---|------|
| Outdoor Conditions Temperature | Relativ | e Humidity | | Ambient CO2 | |
| Fish Temperature Range Relative Hu | i | Range 9% - 60% | CO² | Range # Occupa MAX 700 > Ambient | ants |
| Noticeable Odor Visible water of staining | _ | Visible mid growth | | Amount of material affected | |
| Ceiling 2' X 4' Lay in Yes | | Yes | | on drywall fire ceiling | |
| Walls Drywall No | | No | | | |
| Floor 12" x 12" Vinyl No | | No | | | |
| Ceiling Clean HVAC S Grills C | Clean | | | HVAC Return Grills Clean | |
| Inside of the control | of Supply lean | | | Inside of Return Duct Clean | |
| Room Surfaces Ceiling Clean Grills C | at Supply Clean | | | | |
| Trash Removed Exhaust Fan Signs of Pests Drain | s Working Traps Wet | | | Unapproved Chemicals / Cleaners in Room | |
| Room Cluttered Food if Stored in Sealed Cont | in Room is | | | Air Fresheners in Room | |
| Mechanical Equipment Location | | | | Mechanical Room Clean | |
| Filters Installed Properly Filt | ers Clean | | ı | nside of HVAC Unit Clean | |
| Condensate Pan Clean Cooling C | Coil Clean | | | | |
| Fresh Air Intake Location Pollutant Sources Near Air | | | ▼ | Fresh Air Intake Free of Obstruction | |
| Intake | | | | | |
| Roof leaks causing water damage to and deterioration of the fire ceiling and repair of the roof is needed to | | | | g tile drop ceiling. Replacem | nent |
| APPROX. 3' diameter at SOUTHWEST CORNER. | | | | | |
| Corrective Actions to be Completed by Site Based S | Staff | Correct | | s to be Completed by PPO | |
| | ▼ | Evaluato o | | r Roof Leaks cause of stained ceiling tile | ▼ |
| | + → | | | lace fire ceiling drywall | ╈ |
| | ▼ | | | e upon repair, cuts needed | ▼ |
| | ▼ | | | | ▼ |
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| Pasadena Lakes Elementary | Evaluation Date July 24 | 1, 2017 Time of Day 10:30 A | М |
|--|--|---|----------|
| Outdoor Conditions Temperature | Relative Humidity | Ambient CO2 | |
| Fish Temperature Range Relative | e Humidity Range 30% - 60% | CO ² Range # Occup MAX 700 > Ambient | ants |
| | ter damage / Visible mid ning? growt | | |
| Ceiling 2' X 4' Lay in Ye | Yes | on drywall fire ceiling | |
| Walls Drywall N | o No | | |
| Floor 12" x 12" Vinyl | o No | | |
| Gri | AC Supply Is Clean | HVAC Return Grills Clean | |
| | de of Supply | Inside of Return Duct Clean | |
| Room Surfaces Cei | ling at Supply Is Clean | Suot Glouii — | |
| | Fans Working | Unapproved Chemicals / Cleaners in Room | |
| | ain Traps Wet red in Room is ontainers | Air Fresheners in Room | |
| Mechanical Equipment Location | | Mechanical Room Clean | |
| Filters Installed Properly | Filters Clean | Inside of HVAC Unit Clean | |
| Condensate Pan Clean Cooli | ng Coil Clean | | |
| Fresh Air Intake Location Pollutant Sources Near Air Intake | | Fresh Air Intake Free of Obstruction | |
| Observations | | | |
| Roof leaks causing water damage to and deterion of the fire ceiling and repair of the roof is needed | | | nent |
| FOUR LOCATIONS, 2'x3' (middle, near South wal 10' x 4' along EAST wall - continues NORTH towa closet and restroom. | | | |
| Corrective Actions to be Completed by Site Base | ed Staff Correc | tive Actions to be Completed by PPO | |
| | | Repair Roof Leaks (J812845) | ▼ |
| | | nd repair cause of stained ceiling tile | ▼ |
| | | ve and replace fire ceiling drywall v ceiling tile upon repair, cuts needed | ╅ |
| | ▼ Instantiew | | ▼ |
| | ▼ | | ▼ |
| | ▼ | | ▼ |

| Pasadena Lakes Elem | entary Evaluation D | July 24, 2017 | Time of Day 10:30 AM | 1 |
|--|--|---------------------------|---|--------------|
| Outdoor Conditions Temperature | Relati | ve Humidity | Ambient CO2 |] |
| Fish Temperature Range 135 72 - 78 | Relative Humidity | Range CO ² | Range # Occupa MAX 700 > Ambient | ints |
| Noticeable Odor | Visible water damage / staining? | Visible microbial growth? | Amount of material affected | |
| Ceiling 2' X 4' Lay in | Yes | Yes | on drywall fire ceiling | |
| Walls Drywall | No | No | | |
| Floor 12" x 12" Vinyl | No | No | | |
| Ceiling Clean | HVAC Supply Grills Clean | | HVAC Return Grills Clean | \exists |
| Walls Clean Flooring Clean | Inside of Supply Duct Clean | | Inside of Return Duct Clean | $\neg 1$ |
| Room Surfaces Clean | Ceiling at Supply Grills Clean | ′ 🗀 | bust olean | _ |
| Trash Removed | Exhaust Fans Working | | Unapproved Chemicals / Cleaners in Room | |
| Room Cluttered | Drain Traps We Food if Stored in Room i in Sealed Containers | | Air Fresheners in Room | |
| Mechanical Equipment Location | | | Mechanical Room Clean | |
| Filters Installed Properly | Filters Clean | | Inside of HVAC Unit Clean | $\Box $ |
| Condensate Pan Clean | Cooling Coil Clean | | | |
| Fresh Air Intake Location Pollutant Sources Near Air Intake | | ▼ | Fresh Air Intake Free of Obstruction | $\exists $ |
| Observations | | | | |
| Roof leaks causing water damage to of the fire ceiling and repair of the ro | | | g tile drop ceiling. Replaceme | ent |
| Two ceiling tiles in main section of roand 2'x2' area on drywall fire ceiling. | oom, 2nd and 4th ceiling | tile from the SOUTH wal | Ljust left of hallway, 1'x1' area | |
| Corrective Actions to be Completed | by Site Based Staff | Corrective Action | s to be Completed by PPO | |
| | ▼ | | r Roof Leaks | ▼ |
| | ▼ | | cause of stained ceiling tile | ▼ |
| | ▼ | | lace fire ceiling drywall le upon repair, cuts needed | ₩ |
| | ▼ | motali new cennig th | apon ropan, outo necucu | |
| | ▼ | | | ▼ |
| | ▼ | | | ▼ |

| Pasadena Lakes I | Elementary Evaluation | Date July 24, 2017 | Time of Day 10:30 AM | И |
|---|--|-----------------------------|--|----------|
| Outdoor Conditions Tempera | ture Rela | tive Humidity | Ambient CO2 | |
| | nge Relative Humidity - 78 | Range CO ² | Range # Occupa MAX 700 > Ambient | ants |
| Noticeable Odor | Visible water damage / staining? | Visible microbial growth? | Amount of material affected | |
| Ceiling 2' X 4' Lay in | Yes | Yes | on drywall fire ceiling | |
| Walls Drywall | No | No | | \neg |
| Floor 12" x 12" Vinyl | No | No | | |
| | | | | |
| Ceiling Clean | HVAC Supply | | HVAC Return | \neg |
| Walls Clean | Grills Clean | | Grills Clean | _ |
| Flooring Clean | Inside of Supply Duct Clean | У | Inside of Return Duct Clean | |
| Room Surfaces | Ceiling at Supp | ly — | | |
| Clean | Grills Clean | , | | |
| Trash Removed | Exhaust Fans Workin | ng | Unapproved Chemicals / Cleaners in Room | \neg |
| Signs of Pests | Drain Traps W | et | | <u> </u> |
| Room Cluttered | Food if Stored in Room in Sealed Containers | is | Air Fresheners in Room | |
| Mechanical Equipment Location | | | Mechanical Room Clean | $\neg 1$ |
| Filters Installed Properly | Filters Clea | n | Inside of HVAC Unit Clean | |
| Condensate Pan Clean | Cooling Coil Clea | | | |
| Fresh Air Intake Location | | ▼ | Fresh Air Intake Free | \neg |
| Pollutant Sources Near Air | | | of Obstruction | |
| Intake | | | | |
| Observations Roof leaks causing water damage | o to and deterioration of fir | o coiling drawall and coili | ng tilo dron coiling Ponlacom | ont |
| of the fire ceiling and repair of the | | O J | ng the drop telling. Kepiatem | CIIL |
| Three Ceiling Tiles Along NORTH | wall from FISH 134: dryws | all partially removed. Cut | s needed for cailing tiles | |
| | | an partially removed. Out | | |
| Corrective Actions to be Commis | ated by Site Beard Staff | O | no to be Consulted III BBC | |
| Corrective Actions to be Comple | eted by Site Based Staff | | ns to be Completed by PPO of Leaks (J812845) | T▼ |
| | ▼ | | cause of stained ceiling tile | ╅ |
| | ▼ | · · | place fire ceiling drywall | ╈ |
| | ▼ | | ile upon repair, cuts needed | ╁ |
| | | motan new centing t | no apon repair, eats necaeu | ╅ |
| | ▼ | | | ╈ |
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| Pasadena Lakes Elementary Eva | aluation Da | July 24, 2 | 2017 | Time of Day 10: | 30 AM |
|--|------------------------|--------------------------|-------------|--|----------|
| Outdoor Conditions Temperature | Relativ | e Humidity | | Ambient CO2 | |
| Fish Temperature Range Relative Hu | <u> </u> | Range 9% - 60% | CO² | Range # O MAX 700 > Ambient | ccupants |
| Noticeable Odor Visible water d | | Visible micro growth? | | Amount of material affected | |
| Ceiling 2' X 4' Lay in Yes | | Yes | | on drywall fire ceili | ng |
| Walls Drywall No | | No | | | |
| Floor 12" x 12" Vinyl No | | No | | | |
| Ceiling Clean HVAC S Grills C Walls Clean | lean | | | HVAC Return Grills Clean | |
| Flooring Clean Inside of Duct Cl | of Supply ean | | | Inside of Return Duct Clean | |
| Room Surfaces Ceiling Clean Grills C | at Supply lean | | | | |
| Trash Removed Exhaust Fans Signs of Pests Drain | s Working Traps Wet | | | Jnapproved Chemicals / Cleaners in Room | |
| Room Cluttered Food if Stored in Sealed Conta | in Room is | | | Air Fresheners in Room | |
| Mechanical Equipment Location | | | N | lechanical Room Clean | |
| Filters Installed Properly Filter | ers Clean | | Ins | ide of HVAC Unit Clean | |
| Condensate Pan Clean Cooling C | Coil Clean | | | | |
| Fresh Air Intake Location Pollutant Sources Near Air Intake | | | ▼ | Fresh Air Intake Free of Obstruction | |
| Observations | | | | | |
| Roof leaks causing water damage to and deterioration of the fire ceiling and repair of the roof is needed to | | | | tile drop ceiling. Repl | acement |
| TWO LOCATIONS, 3'x8' (NORTHWEST CORNER OF ~4' x8' in center area of room, behind duct work. | ROOM) d | rywall ceiling fa | alling down | ı, roof leak at edge of ı | roof; |
| Corrective Actions to be Completed by Site Based S | Staff | Correctiv | e Actions | to be Completed by Pl | 20 |
| | ▼ | | • | eaks (J812845) | ▼ Vilo |
| | ▼ | | | use of stained ceiling to be fire ceiling drywall | tile ▼ |
| | ▼ | | | upon repair, cuts need | led ▼ |
| | ▼ | | | | ▼ |
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| Pasadena Lakes Elementary | Evaluation Date | July 24, 2017 | Time of Day 10:30 Al | М |
|--|-----------------------------------|---------------------------|---|----------|
| Outdoor Conditions Temperature | Relative H | lumidity | Ambient CO2 | |
| Fish Temperature Range Re | i | enge CO ² | Range # Occup MAX 700 > Ambient | ants |
| Noticeable Odor Visible | e water damage / staining? | Visible microbial growth? | Amount of material affected | |
| Ceiling 2' X 4' Lay in | Yes | Yes | on drywall fire ceiling | |
| Walls Drywall | No | No | | |
| Floor 12" x 12" Vinyl | No | No | | |
| Ceiling Clean Walls Clean | HVAC Supply Grills Clean | | HVAC Return Grills Clean | |
| Flooring Clean | Inside of Supply Duct Clean | | Inside of Return Duct Clean | |
| Room Surfaces Clean | Ceiling at Supply Grills Clean | | | |
| Trash Removed Exha | ust Fans Working Drain Traps Wet | | Unapproved Chemicals / Cleaners in Room | |
| Room Cluttered Food if | Stored in Room is ed Containers | | Air Fresheners in Room | |
| Mechanical Equipment Location | | | Mechanical Room Clean | |
| Filters Installed Properly | Filters Clean | | Inside of HVAC Unit Clean | |
| Condensate Pan Clean | cooling Coil Clean | | | |
| Fresh Air Intake Location Pollutant Sources Near Air Intake | | ▼ | Fresh Air Intake Free of Obstruction | |
| Observations | | | | |
| Roof leaks causing water damage to and dete of the fire ceiling and repair of the roof is need | | | ng tile drop ceiling. Replacem | nent |
| Near WEST door, 2'x2' circle | | | | |
| Corrective Actions to be Completed by Site | Rasad Staff | Corrective Asti- | no to be Completed by BBC | |
| Our source Actions to be completed by Site | Saseu Stail | | ns to be Completed by PPO ir Roof Leaks | ▼ |
| | ▼ | Evaluate and repair | cause of stained ceiling tile | ▼ |
| | ▼ | | place fire ceiling drywall | ▼ |
| | | mstan new ceiling t | ile upon repair, cuts needed | + ▼ |
| | ▼ | | | ▼ |
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