



Internal Audit of The Enhanced Hurricane Protection Areas Inspection Process

**Prepared By:
Carr, Riggs & Ingram LLC
November 2021**



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November 1, 2021

Mr. Joris Jabouin
Office of the Chief Auditor
The School Board of Broward County, Florida
600 S.E. 3rd Avenue
Fort Lauderdale, Florida 33301

Pursuant to our engagement letter dated November 24, 2020, we hereby submit our internal audit of the inspection process for the Enhanced Hurricane Protection Areas function.

Our report is organized in the following sections:

Executive Summary	This provides a summary of the observations and testing results related to our internal audit of the Enhanced Hurricane Protection Areas function.
Background	This provides a general overview of the Enhanced Hurricane Protection Areas Inspection function and various selective statistics.
Objectives and Approach	The internal audit objectives and focus are expanded upon in this section as well as a review of our approach.
Observations Matrix	This section provides the results of our internal audit procedures, including our recommended actions and management's responses.
Attachment A	This represent a high-level summary of the current state of the 5-year inspection process based on discussions with management for each applicable Department/Office/Division.
Appendix I	This provides management responses that supplement those summarized in the Observation Matrix.
Appendix II	This provides the Engineers of Record respective Inspection Report Amendment and Updates.

We would like to thank all those involved in assisting us in connection with the internal audit of the inspection process of the Enhanced Hurricane Protection Areas function.

Respectfully Submitted,

Carr, Riggs & Ingram, L.L.C.

Executive Summary



Executive Summary

Overview

An Enhanced Hurricane Protection Area (EHPA) refers to a new education facility, or portion thereof, designed, constructed, inspected and maintained in accordance with Public Shelter Design Criteria, section 453.25, *Florida Building Code, Building*.

Objective

The audit objectives were to assist the Office of the Chief Auditor (OCA) in assessing the District's compliance related to the inspection requirements of the District's EHPA Facilities pursuant to the 2017 *Florida Building Code (FBC) – Building, 6th Edition Section 453.25.6 Inspections* – particularly sections 453.25.6.3 and 453.25.6.4, *FBC, Building* (effective through 12/31/2020).

Observations

The following is a summary of observations that management has completed or is currently addressing:

Observation Summary
<p>1. <u>EHPA 5-Year Inspection Performance:</u> For 2 out of the 42 schools listed as EHPAs in the 2020 Statewide Emergency Shelter Plan (dated January 31, 2020), management was not able to provide any inspection reports as evidence that the required 5-year inspection was performed by a Florida-registered professional engineer skilled in structural design since these facilities were constructed. District Management stated that the District did not internally identify these schools as EHPA facilities and therefore were not required to be inspected.</p> <p>This observation has been completed.</p>
<p>2. <u>EHPA 5-Year Inspection Recertification:</u> The 40 EHPAs that were inspected by the Florida-registered professional engineer resulted in 105 total recommendations as follows:</p> <ul style="list-style-type: none">• 17 out of 40 EHPAs were recertified resulting in 46 recommendations.• 23 out of 40 EHPAs were not recertified resulting in 59 recommendations. <p>We noted the following regarding the 105 recommendations:</p> <ul style="list-style-type: none">• 65 of the recommendations were addressed as follows:<ul style="list-style-type: none">○ 11 were corrected by PPO○ 54 were included in the scope of the SMART Bond program (11 completed, 43 in-process).• 40 of the recommendations have not been addressed or included in the scope of the SMART Bond program. <p>A portion of this recommendation has been completed.</p>
<p>3. <u>EHPA Annual/Post-major Event Inspection & Maintenance:</u> The annual inspection and post-major event inspections have not been performed for any of the EHPAs since they were constructed as required by sections 453.25.6.4; 453.25.6.3, <i>FBC, Building</i> (code reference change effective 1/1/2021).</p>
<p>4. <u>EHPA Deficiencies Communication:</u> Management did not provide Broward County (County) with a list of the EHPAs not recertified (23) or inspected (2) prior to hurricane season as required. These inspection periods included the following three Florida hurricanes: Matthew (October 2016), Irma (September 2017) and Dorian (August /September 2019).</p>
<p>5. <u>EHPA Inspection & Maintenance Process Ownership:</u> There is no one department or person(s) that owns the EHPA inspection and maintenance compliance process from beginning to end to ensure that the required inspections are performed and that any identified deficiencies are addressed and resolved prior to the next hurricane season.</p>
<p>6. <u>EHPA Inspection & Maintenance Process Documentation:</u> Management does not have a documented process in place to ensure: a) the required EHPA inspections are performed, b) any deficiencies are identified, addressed and/or resolved prior to the next hurricane season, and c) EHPAs with any unresolved deficiencies are properly communicated to the County prior to the next Hurricane season pursuant to the agreement between the District and the County.</p>

Background



Background

Pursuant to section 1013.372(2) and section 252.385(2)(b), Florida Statutes (F.S.) the Division of Emergency Management (Division) is responsible for preparing a Statewide Emergency Shelter Plan (the Plan). The Plan serves as a guide to determine need for new school facilities to be designed and built as hurricane evacuation shelters. The Plan is submitted to the Governor and Cabinet for approval by January 31 of each even-numbered year. The Plan identifies the general location and square footage of existing general population (GP) and special needs shelter (SpNS) space, by Regional Planning Council (RPC) region, and needed space during the next five (5) years. The Plan also includes information on the availability of shelters that accept pets. In accordance with the statute, the Plan must:

- Identify the general location and square footage of existing shelters by RPC regions;
- Identify the general location and square footage of needed shelters by RPC regions for the next five years;
- Identify the types of facilities which should be constructed to comply with the public shelter design criteria; and
- Recommend an appropriate and available source of funding for the additional cost of constructing emergency shelters within those public facilities.

Public facilities that should be constructed to comply with public shelter design criteria (EHPAs) include all facilities that are subject to be used as public hurricane evacuation shelters under the authority of section 252.385(4)(a), F.S.; that is, public schools, postsecondary education (community or state colleges and universities), and certain other facilities owned or leased by state and local governments. When appropriately located, designed and constructed the following types of facilities are considered suitable for use as public hurricane evacuation shelters:

Community and civic centers, meeting halls, gymnasiums, auditoriums, cafeterias and dining areas, open floor multipurpose facilities, exhibition halls, sports arenas, field houses, conference and training centers, certain classroom facilities, and other public assembly facilities.

With publication of this Plan, Florida has 39 counties with sufficient capacity of GP hurricane evacuation shelter space. The counties with sufficient GP space include: Alachua, Baker, Bay, Brevard, **Broward**, Calhoun, Columbia, Dixie, Escambia, Flagler, Gadsden, Gilchrist, Glades, Hamilton, Hardee, Hendry, Hillsborough, Holmes, Indian River, Jackson, Jefferson, Leon, Levy, Liberty, Madison, Martin, Okaloosa, Orange, Osceola, Palm Beach, Saint Johns, Saint Lucie, Santa Rosa, Seminole, Suwannee, Taylor, Union, Walton, and Washington.

There are 33 counties with sufficient capacity of SpNS hurricane evacuation shelter space. The counties with a sufficient capacity of SpNS space include: Alachua, Baker, Brevard, **Broward**, Citrus, Clay, Columbia, DeSoto, Escambia, Gilchrist, Glades, Hamilton, Hardee, Hernando, Hillsborough, Holmes, Lafayette, Leon, Levy, Liberty, Madison, Manatee, Martin, Miami-Dade, Osceola, Pasco, Putnam, Saint Lucie, Santa Rosa, Seminole, Sumter, Union and Walton.

An Enhanced Hurricane Protection Area (EHPA) refers to a new education facility, or portion thereof, designed, constructed, inspected and maintained in accordance with Public Shelter Design Criteria, section 453.25, Florida Building Code, Building.

Source: Executive Summary; Appendix D-2, 2020 Statewide Emergency Shelter Plan – January 31, 2020.

Background – continued

The 42 District schools listed below were identified as EHPA Facilities in the 2020 Statewide Emergency Shelter Plan, January 31, 2020; however, the District stated that two of these District schools should not have been identified as EHPAs* (see resolution in observation 1):

1. ATC/Rock Is. Elementary/Ashe Middle
2. Beachside Montessori Village
3. Challenger Elementary
4. Coconut Palm Elementary
5. Coral Cove Elementary
6. Coral Glades High
7. Dolphin Bay Elementary
8. Everglades Elementary
9. Everglades High
10. Falcon Cove Middle
11. Floranada Elementary*
12. Fox Trail Elementary
13. Gator Run Elementary
14. Hallandale Elementary
15. Indian Ridge Middle
16. Lakeside Elementary
17. Liberty Elementary
18. Lyons Creek Middle
19. Manatee Bay Elementary
20. McNicol Middle
21. Millennium Middle School*
22. Monarch High
23. New Renaissance Middle
24. New River Middle
25. Orange Brook Elementary
26. Panther Run Elementary
27. Park Lakes Elementary
28. Park Trails Elementary
29. Parkside Elementary
30. Pines Middle
31. Plantation Elementary
32. Pompano Beach High
33. Sheridan Tech High (Sunset School)
34. Silver Lakes Elementary
35. Silver Palms Elementary
36. Silver Shores Elementary
37. Silver Trail Middle
38. Sunset Lake Elementary
39. Tradewinds Elementary
40. Watkins Elementary
41. West Broward HS
42. Westglades Middle

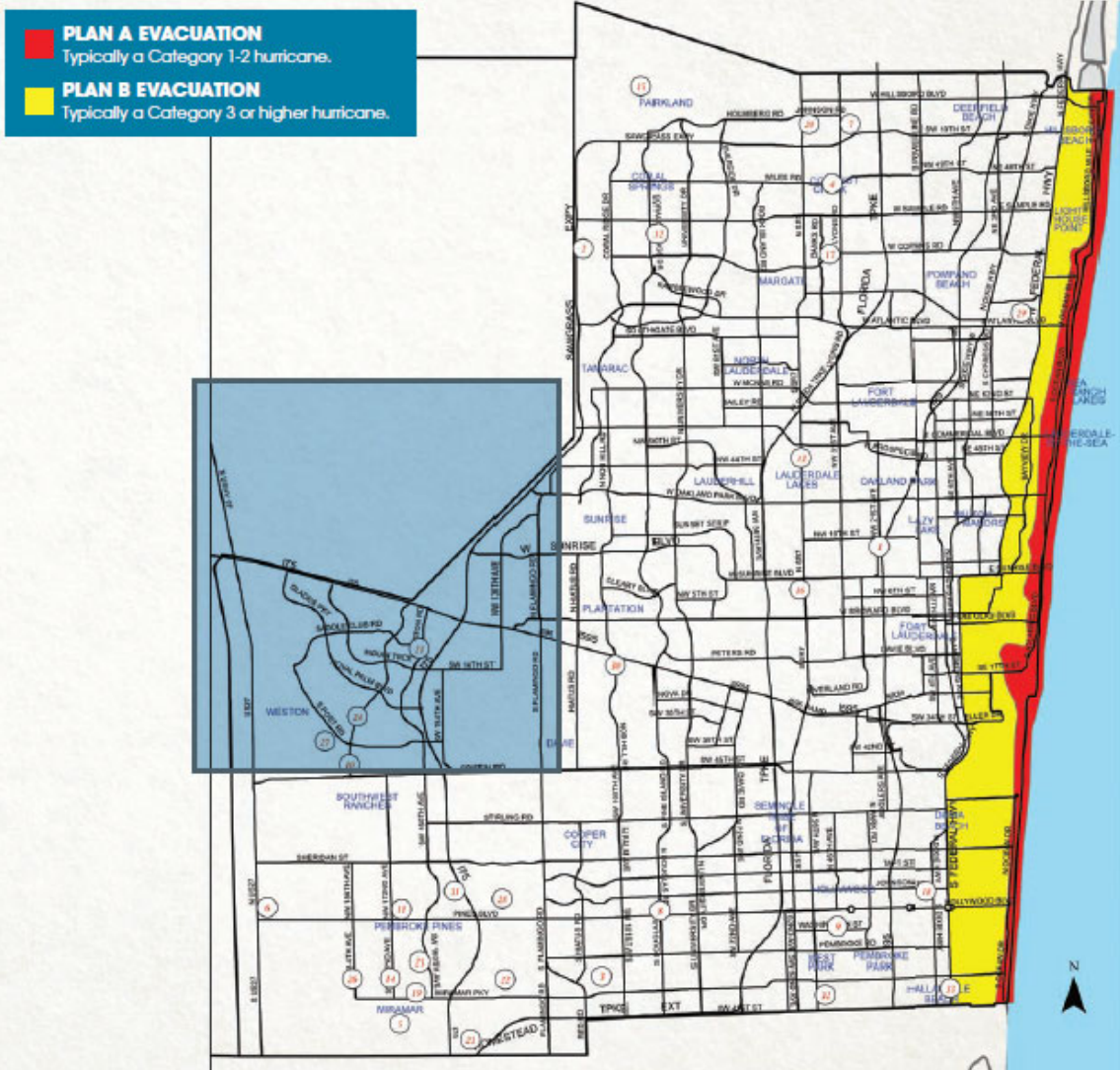
Background – continued



EMERGENCY SHELTER MAP

The following shelters may not all open during a state of emergency. They are opened as needed. If possible, staying with family or friends outside an evacuation zone is your first and best option. Monitor Broward County's website, Broward.org/Hurricane, local television stations or call our Emergency Hotline at 311 or 954-831-4000 for actual shelter openings. Emergency shelters are a service of the Broward County Commission and the Broward County School Board.

Persons located in low lying areas or beside tidal bodies of water should seek shelter elsewhere if conditions warrant. **ALL** mobile home residents must evacuate in PLAN A and PLAN B and may be ordered to evacuate if tropical storm conditions warrant.



A service of the Broward County Board of County Commissioners. An equal opportunity employer and provider of services.

Source: Broward County Website: <https://www.broward.org/Hurricane/Pages/Shelters.aspx>

Background – continued

The following represents the most recent list of available public hurricane shelters identified by Broward County.

Special Needs Shelter: These shelters are for persons with medical conditions who do not require hospitalization. They provide basic medical assistance and monitoring. Pre-registration is strongly recommended by calling 954-831-3902 (TTY 954-831-3940).

Pet-Friendly Shelter: Staying with family, friends or at a pet-friendly hotel outside an evacuation zone should be your first and best option. Pet-friendly shelter(s) is available on a first-come basis. Pets accepted include: dogs, cats, domestic birds, rabbits, gerbils, guinea pigs, mice and hamsters. All pets must be in a carrier/crate and all dogs must have a collar with leash. Evacuees must show proof of rabies certificate for dogs and cats. Residents should also be prepared to show their pet's Broward County Registration Tag. Evacuees should bring necessary care supplies for a week such as, supply of food and water, food/water bowls, cat litter and litter box, medicine, cleaning supplies, etc.

General Population and Pet-Friendly Shelters

- Arthur Ashe/Rock Island**
1701 NW 23rd Avenue, Ft. Lauderdale 33311
- 1. Coral Glades High School**
2700 Sportsplex Dr, Coral Springs 33065
 - 2. New Renaissance Middle School**
10701 Miramar Blvd., Miramar 33025
 - 3. Monarch High School**
5050 Willes Road, Coconut Creek 33073
 - 4. Everglades High School - Pet Friendly**
17100 SW 48 Court, Miramar, FL 33027
 - 5. West Broward High School**
500 NW 209 Avenue, Pembroke Pines, FL 33029
 - 6. Lyons Creek Middle School - Pet Friendly**
4333 Sol Press Blvd., Coconut Creek 33073
 - 7. Pines Middle School**
200 NW Douglas Road, Pembroke Pines 33024
 - 8. Orange Brook Elementary School**
715 S. 46th Avenue, Hollywood 33021
 - 9. Falcon Cove Middle School - Pet Friendly**
4251 Bonaventure Blvd., Weston 33332
 - 10. Panther Run Elementary School**
801 NW 172nd Avenue, Pembroke Pines 33029
 - 11. Parkside Elementary School**
10257 NW 29th Street, Coral Springs 33065
 - 12. Park Lakes Elementary School**
3925 N. State Road 7, Lauderdale Lakes 33319
 - 13. Silver Lakes Elementary School**
2300 SW 173rd Avenue, Miramar 33027
 - 14. Park Trails Elementary School**
10700 Trails End Road, Parkland 33076
 - 15. Plantation Elementary School**
651 N. W. 42nd Ave., Plantation 33317
 - 16. Liberty Elementary School**
2450 Banks Road, Margate 33063
 - 17. Beachside Montessori Village Elementary School**
2230 Lincoln Street, Hollywood 33020
 - 18. Dolphin Bay Elementary School**
16450 Miramar Parkway, Miramar 33027
 - 19. Tradewinds Elementary School**
5400 Johnson Road, Coconut Creek 33073
 - 20. Gator Run Elementary School**
1101 Glades Parkway, Weston 33327
 - 21. Coconut Palm Elementary School**
13601 Monarch Lakes Blvd, Miramar 33027
 - 22. Coral Cove Elementary School**
5100 SW 148th Avenue, Miramar 33027
 - 23. Everglades Elementary School**
2900 Bonaventure Blvd, Weston 33331
 - 24. Silver Shores Elementary School**
1701 SW 160 Avenue, Miramar 33027
 - 25. Lakeside Elementary School**
900 NW 136th Avenue, Pembroke Pines 33026
 - 26. Watkins Elementary School**
3520 S. W. 52nd Ave., Pembroke Park 33023
 - 27. Pompano Beach High School**
600 N.E. 13th Ave., Pompano Beach 33060
 - 28. Sunset Lakes Elementary School**
18400 SW 25th Street, Miramar 33029
 - 29. Fox Trail Elementary School**
1250 Nob Hill Road, Davie 33324
 - 30. Manatee Bay Elementary School**
19200 Manatee Isles Dr., Weston 33332
 - 31. Hallandale Elementary School**
1000 SW 8th Street, Hallandale 33009
 - 32. Silver Palms Elementary School**
1209 NW 155th Avenue, Pembroke Pines 33028

Last Updated: 06/17/19

Emergency Management Division 201 N.W. 84th Avenue, Plantation, FL 33324 | 954-831-3900

Source: Broward County Website: <https://www.broward.org/Hurricane/Pages/Shelters.aspx>

Background – continued

Staffing

Key departments/offices/divisions that were interviewed and/or were included in various meetings as part of our internal audit process included:

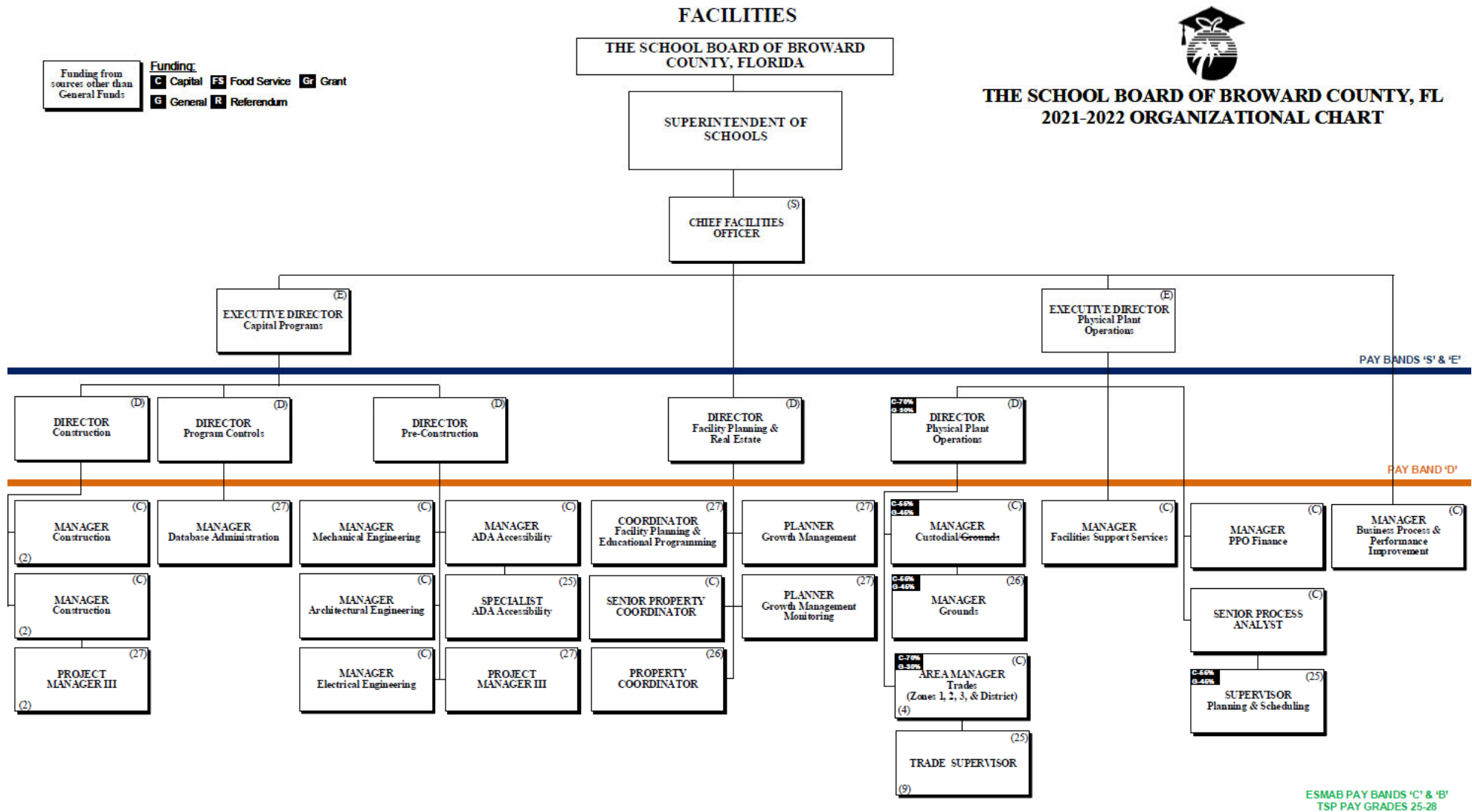
Name	Title
Michael Medina	Director, School Security Support Services
Victoria B. Stanford	Manager, Emergency Management & Task Assigned Chief Fire Official
Mark D. Dorsett	Executive Director, Physical Plant Operations
Sam R. Bays	Director, Physical Plant Operations
Shelley N. Meloni	Director, Pre-Construction, Office of Capital Programs
Divine H. Amoah	Manager, Architectural Engineering, Office of Capital Programs
Frank Girardi	Executive Director, Office of Capital Programs

The Chief Auditor and/or CRI also met with and shared the Observations Matrix with the following:

Name	Title
Leo Nesmith	Task Assigned Chief Safety & Security Officer
Jermaine V. Fleming	Acting Chief Strategy & Operations Officer

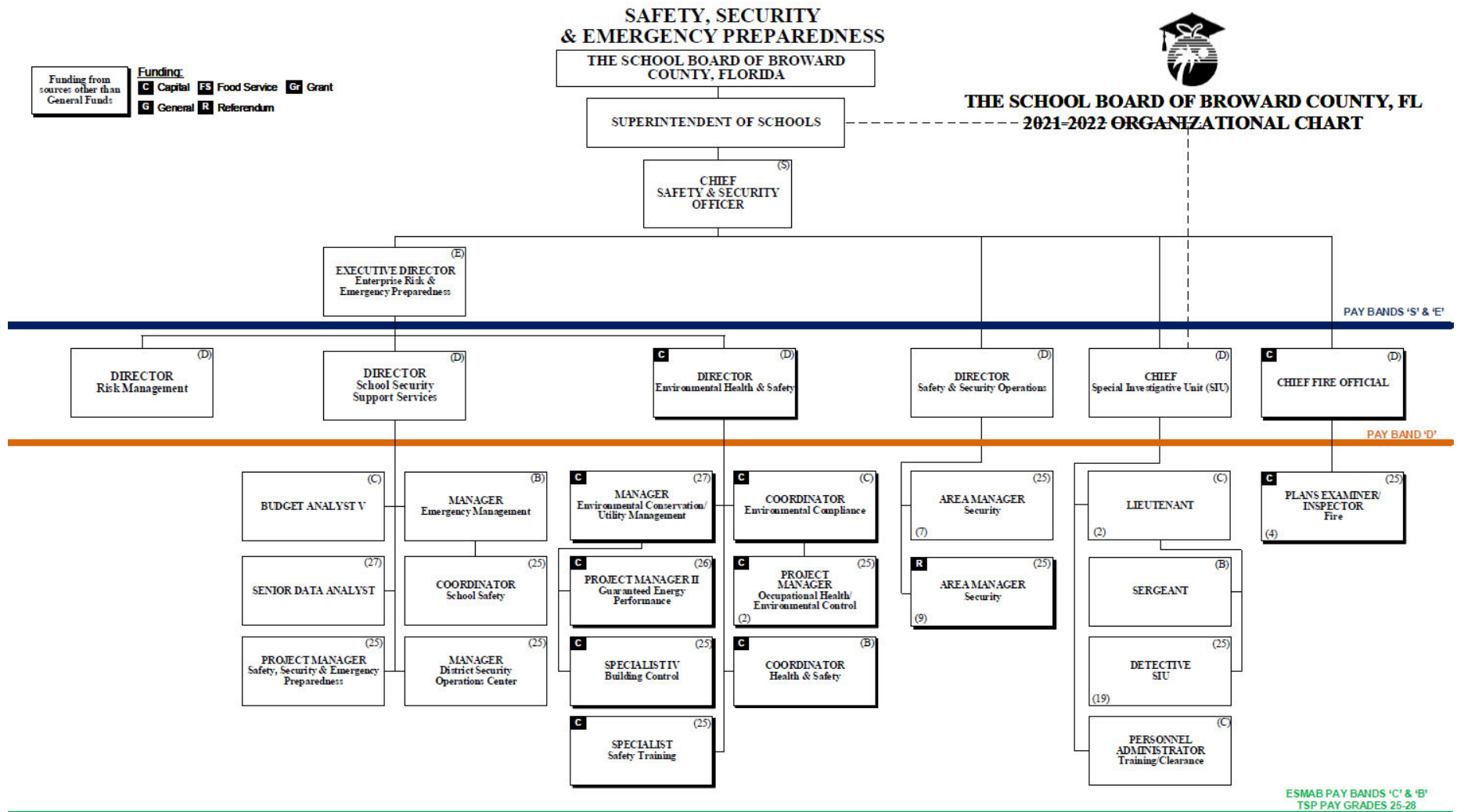
Their respective responses are included in the Appendix.

Background – continued



Board Approved: 05/18/21

Background - continued



Board Approved: 05/18/21

-17-

Background – continued

The following represents the EHPA five-year and annual pre-hurricane inspection/post-major event requirements pursuant to 2017 Florida Building Code (FBC) – Building, 6th Edition Sections 453.25.6 (effective through 12/31/21):

Five-Year Inspection:

*EHPAs shall be inspected and recertified for compliance with the structural requirements of this section every five years by a Florida-registered professional engineer skilled in structural design. If any structural system, as specified in this section, is damaged or replaced, the recertification shall be obtained prior to the beginning of the next hurricane season (section 453.25.6.3, FBC, Building).**

Annual Inspection:

All shutter systems, roofs, overflow scuppers, and structural systems of EHPAs shall be inspected and maintained annually prior to hurricane season and after a major event. All emergency generators shall be inspected under load conditions including activation of the fire alarms, emergency lights in accordance with applicable equipment codes and NFPA standards, and including mechanical systems and receptacles connected to the emergency power (section 453.25.6.4, FBC, Building).

*Effective January 1, 2021, FBC 7th Edition removed the requirement for the every five year inspection by a Florida-registered professional engineer skilled in structural design.

Management tracks the EPHA's to ensure that each EHPA is inspected every 5-years. The most recent inspections were performed for fiscal years 2015 and 2018.

The steps below represent a high-level summary of the current state of the 5-year inspection process based on discussions with management for each applicable Department/Office/Division:

- Emergency Management (EM) maintains the list of schools with designated EPHA's.
- EM requests the Office of Capital Programs (OCP), Preconstruction (OCP-Precon) to procure a Florida-registered professional engineer skilled in structural design (PE).
- OCP-Precon procures the structural engineer based for the list of EHPAs provided by EM.
- PE performs inspections for the list of EHPAs provided by OCP-Precon.
- PE provides resulting inspection reports in draft form for review/discussion by OCP-Precon.
- PE finalizes inspection reports and provides to OCP-Precon.
- OCP-Precon emails final inspection reports to EM who emails to Physical Plant Operations (PPO).
- PPO creates work order for items PPO considers in scope for PPO.*
- PPO began creating work orders for and/or communicated to OCP items considered in OCP scope.**
- EM inquires of PPO of any unresolved deficiencies; if no response, assumes there are no unresolved deficiencies, and, as such, assumes there are no EPHA's not recertified that would need to be communicated to Broward County.

*After previous Office of Chief Auditor (OCA) inquiries regarding this process, per PPO management.

**Per OCP-Precon, they have no record of receiving these items

See flow chart for the above inspection process in Attachment A.

The County activates the EPHA's based on feedback from the District regarding any deficiencies as reported annually for each respective EHPA prior to hurricane season.

Background - continued

Based on correspondence with the County, we noted the following with respect to the activation of the District's EHPAs by the County for the last three hurricanes:

MATTHEW (October 2016)

- The County opened 12 schools with EHPAs
- 6 out of 12 were not recertified by the Florida-registered professional engineer

IRMA (September 2017)

- The County opened 28 schools with EHPAs
- 12 out of 28 were not recertified by the Florida-registered professional engineer

DORIAN (August/September 2019)

- The County opened 13 schools with EHPAs
- 7 out of 13 were not recertified by the Florida-registered professional engineer

Annual/Post Major Event EHPA Inspections

What is required for the EHPA annual (and post major event) inspections?

All shutter systems, roofs, overflow scuppers, and structural systems of EHPAs shall be inspected and maintained annually prior to hurricane season and after a major event. All emergency generators shall be inspected under load conditions including activation of the fire alarms, emergency lights in accordance with applicable equipment codes and NFPA standards, and including mechanical systems and receptacles connected to the emergency power (FBC 453.25.6.4; FBC 453.25.6.3).*

Who can perform the annual inspections?

"If the inspections are part of the annual casualty safety and sanitation inspections, then the inspections shall be performed by persons proficient with applicable rules and standards as determined by the district school board in accordance with section 5(1) (a) 3, SREF." (Per email correspondence with FLDOE representative – dated 5/10/21)

*Effective January 1, 2021, FBC 7th Edition removed the requirement for the every five year inspection by a Florida-registered professional engineer skilled in structural design. The annual inspection has always been required.

What does 5(1)(a)3, SREF say?

"Annual Casualty Safety and Sanitation Inspections. Casualty safety and sanitation inspections shall be performed by persons proficient with applicable rules and standards. A schedule for correction of each deficiency shall be included in the report and adopted by the Board."

What are the "applicable rules and standards as determined by the district school board in accordance with section 5(1)(a)3, SREF?"

"Annual casual safety and sanitation inspections, prior to hurricane season, of EHPAs, shall include all shutter systems, roofs, overflow scuppers, structural systems and emergency generators shall be inspected under load conditions including activation of the fire alarms, emergency lights in accordance with applicable equipment codes and NFPA standards, and including mechanical systems and receptacles connected to the emergency power in accordance with section 453.25.6.3, FBC, Building." (Email correspondence with FLDOE – dated 5/25/21)

- The District's Annual Comprehensive Safety Reports include the following elements:
 - ☐ Fire safety
 - ☐ Causality
 - ☐ Sanitation
- EHPA specific inspection elements are not included.
- Fire safety personnel who perform the Annual Comprehensive Safety Inspections do not possess the necessary qualifications to perform the EHPA inspection elements.
- EHPA section would need to be added if the Annual Comprehensive Safety Inspections were to include the required annual EHPA inspections.

Objectives and Approach

Objectives and Approach

Objectives

The audit objectives were to assist the OCA in assessing the District's compliance related to the inspection requirements of the EHPA Facilities pursuant to the *2017 Florida Building Code (FBC) – Building, 6th Edition Section 453.25.6 Inspections* – particularly sections 453.25.6.3 and 453.25.6.4, *FBC, Building* (effective through 12/31/2020).

Approach

Our internal audit approach consisted of three phases:

Phase One – Planning

- Created a detailed work plan in order to assist the OCA for testing compliance of the EHPAs pursuant to the FBC sections noted above for execution in Phase Two.
- Submitted work plan to OCA Chief Auditor for approval.

Phase Two – Executing

- Conducted interviews with relevant District management and staff to gain an understanding of the applicable process and controls for the EHPA Inspection Process.
- Verified that an EHPA inspection was done in accordance with the applicable FBC identified above.
- Obtained respective EHPA five-year inspection reports and documented any deficiencies required to be addressed by management.
- Compared scope of deficiencies to work orders, vendor invoices, and SMART Bond Program scope (as applicable) to determine whether deficiencies were properly addressed by management.

Phase Three – Reporting

At the conclusion of our procedures, we documented our understanding of the Department key processes identified in the objectives and summarized our observations. We conducted an exit conference with management and have incorporated management's responses into our report and as attached in the Appendix. We provided copies to appropriate District personnel.

Observations Matrix

Observations Matrix

Internal Audit Report

Observation	Recommended Action	Management Response
1. EHPA 5-Year Inspection Performance <p>For 2 out of the 42 schools listed as EHPAs in the 2020 <i>Statewide Emergency Shelter Plan</i> (dated January 31, 2020), management was not able to provide any inspection reports as evidence that the required 5-year inspection was performed by a Florida-registered professional engineer skilled in structural design since these EPHA facilities were constructed.</p> <p>The facilities not inspected were Floranada Elementary School and Millennium Middle School. The County activated Millennium as a hurricane shelter during Hurricane Matthew.</p> <p>Even though these two schools were designated as EHPAs in the 2020 Statewide Emergency Shelter Plan, District Management stated that the District did not internally identify these schools as EPHA facilities and therefore were not required to be inspected.</p>	<p>We recommend that management consult with the County to determine if Floranada Elementary and Millennium Middle Schools will be used as EHPAs, and if so, management needs to perform the required EPHA inspection for both schools.</p>	<p>Response:</p> <p>These sites do not currently hold EPHA designations. For context, these sites are currently viewed as “reserve backups” with an understanding between Emergency Management (EM) and Broward County (BC) that these sites would be used for evacuees or operations outside of a storm’s impacted path or post storm if the need arises, nullifying the need for an EPHA designation at this time. EM will play a central role in liaising with BC if such a situation arises.</p> <p>See Appendix for the respective Chief’s concurrence with the above response and additional information, as applicable.</p> <p>Responsible party:</p> <p>Director, School Security Support Services Safety, Security, and Emergency Preparedness Division (SSEP)</p> <p>Estimated completion date:</p> <p>Completed.</p>

Observations Matrix

Internal Audit Report

Observation	Recommended Action	Management Response
<p>2. EHPA 5-Year Inspection Recertification</p> <p>The 40 EHPAs that were inspected by the Florida-registered professional engineer resulted in 105 total recommendations as follows:</p> <ul style="list-style-type: none"> 17 out of 40 EHPAs were recertified resulting in 46 recommendations. 23 out of 40 EHPAs were not recertified resulting in 59 recommendations. <p>We noted the following regarding the 105 recommendations:</p> <ul style="list-style-type: none"> 65 of the recommendations were addressed as follows: <ul style="list-style-type: none"> 11 were corrected by PPO 54 were included in the scope of the SMART Bond program (11 completed, 43 in-process). 40 of the recommendations have not been addressed or included in the scope of the SMART Bond program. 	<p>We recommend that management perform the following:</p> <ol style="list-style-type: none"> Work with a Florida-registered professional engineer to review the 105 recommendations as a whole and the 59 recommendations in particular for potential re-evaluation / re-inspection, to determine the impact on the 23 EHPAs that were not previously recertified. Review the 40 recommendations that were not addressed or included in the SMART Bond program and create a plan, prioritized by importance, to ensure that they are addressed and resolved in a timely manner. Communicate any EHPA unresolved recommendations to the County prior to the hurricane season (see observation 4). Identify the proper, recurring funding sources to fund any applicable repairs/renovations as needed. <p><u>Note:</u> *Effective January 1, 2021, FBC 7th Edition removed the requirement for the every five year inspection by a Florida-registered professional engineer skilled in structural design. As such, the 23 EHPAs that were not recertified by the Florida-registered structural engineer do not have to be re-certified. However, all of the mandatory recommendations related to these 23 EHPA schools above must be resolved.</p>	<p>Response:</p> <p>OCP and PPO Response</p> <p>a – b. Staff reengaged the Engineers of Record (EOR) who had conducted the 2015 and 2018 EHPA 5-Year Inspections. The EOR's issued letters that amended and updated its previous findings and conclusions related to all 105 recommendations as follows:</p> <p><i>We conclude that the EHPAs listed in this letter can be used and be certified as EHPA given that there is no risk to users if the buildings condition has not changed since our inspection.</i></p> <p><i>Any item not addressed in the re-evaluation of our reports and/or confirmation of the condition of the schools is recommended to be reviewed during the annual inspection needed at each school.</i></p> <p>Regarding any future deficiencies found during the annual inspection, staff will develop a plan and work collaboratively with the Enterprise Risk Management Working Group to address and resolve deficiencies in a timely manner.</p> <p>SSEP Response</p> <p>c. EM management will continue to function as the main point of contact and liaison between the District and BC regarding all shelter and EHPA inspections statuses. EM currently maintains regular, year-round communication with BC to ensure transparency and timely communication of such efforts. EM and SSEP will work to augment this process by developing a tracking and communication platform by which all involved parties can efficiently and effectively update statuses of their workflows, achieving constant communication and accountability.</p>

Observation	Recommended Action	Management Response
2. <i>EHPA 5-Year Inspection Recertification - continued</i>		
		<p>EM will develop and implement this platform/process in time for the 2022 hurricane season.</p> <p>Enterprise Risk Management Working Group Response</p> <p>d. The Enterprise Risk Management Working Group (ERMWG) will assist SSEP, PPO, and OCP as needed in the identification of funding sources.</p> <p>See Appendix for the respective Chief's concurrence with the above response and additional information, as applicable.</p> <p>Responsible party:</p> <ul style="list-style-type: none"> a. – b.; Executive Director, PPO; Executive Director, OCP; ERMWG. c. Director, SSEP d. ERMWG <p>Estimated completion date:</p> <ul style="list-style-type: none"> a. – b. Completed. c. June 1, 2022 d. June 1, 2022

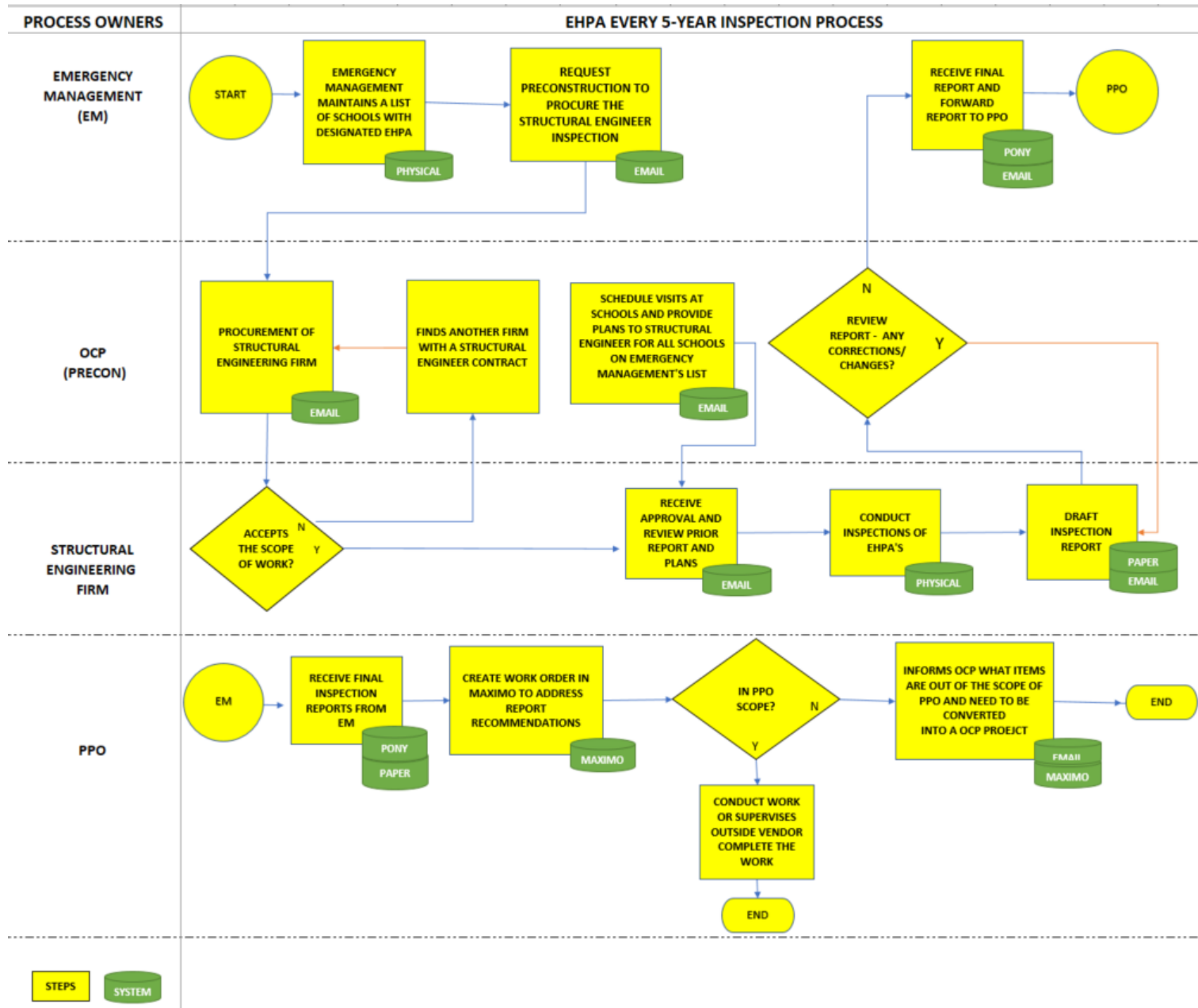
Observation	Recommended Action	Management Response
<p>3. EHPA Annual/Post-Major Event Inspection & Maintenance</p> <p>The annual inspection and post-major event inspections have not been performed for any of the EHPAs since they were constructed as required by sections 453.25.6.4; 453.25.6.3, FBC, Building (code reference change - effective 1/1/2021).</p> <p><i>All shutter systems, roofs, overflow scuppers, and structural systems of EHPAs shall be inspected and maintained annually prior to hurricane season and after a major event. All emergency generators shall be inspected under load conditions including activation of the fire alarms, emergency lights in accordance with applicable equipment codes and NFPA standards, and including mechanical systems and receptacles connected to the emergency power (section 453.25.6.4, FBC, Building).*</i></p> <p>*Effective January 1, 2021, FBC 7th Edition removed the requirement for the every five year inspection by a Florida-registered professional engineer skilled in structural design and the above annual/post-major event section requirement was renumbered to 453.25.6.3. The annual/post-major event inspection remains a requirement.</p> <p>Management acknowledges that the annual comprehensive and safety inspections (noted in the background section) that are performed for every school, which includes the EHPA facilities, do not cover the inspection of structural elements such as walls, roofs, (including roof drainage systems) doors and windows for structural integrity as required by FBC section noted above.</p>	<p>We recommend that the ERMWG facilitate the performance of the required annual and post-major event inspections as follows:</p> <ol style="list-style-type: none"> Perform inspections with persons who are proficient with the applicable rules and standards as determined by the district school board in accordance with section 5(1)(a)3, SREF. Determine whether there are persons proficient within the District in accordance with a. above to perform the required inspections or whether these inspections need to be outsourced. Include the relevant required elements of the EHPA inspection in the resulting inspection report in accordance with 5(1)(a)3, SREF. Identify, address, and/or resolve any deficiencies prior to the next hurricane season in accordance with the contract between the District and the County. Communicate EHPAs with unresolved deficiencies to the County prior to the next Hurricane season. Identify the proper, recurring funding sources to fund the applicable inspections and maintenance (repairs/renovations) as needed. 	<p>Response:</p> <p>ERMWG</p> <p>a – d.; f. These processes are executed by various divisions, including SSEP via the Chief Fire Official. As such, The ERMWG will work with SSEP, PPO, OCP, and their respective inspection entities to identify and implement the most cost-efficient means to ensure that the required annual and post-hurricane inspections are performed and reported in accordance with section 5(1)(a)3, SREF. The ERMWG will assist SSEP, PPO, and OCP as needed in the identification of funding sources.</p> <p>See Appendix for the respective Chief's concurrence with the above response and additional information, as applicable.</p> <p>SSEP</p> <p>e. As the main liaison between the District and the County on emergency management related matters, SSEP's Emergency Management team will collaborate with internal departments to identify deficiencies, ensuring proper communication and transparency with both internal partners and Broward County as the District works to resolve deficiencies. Additionally, Emergency Management will continue to play a lead role in communicating EHPA and shelter statuses to the County.</p> <p>Responsible party:</p> <p>a – d. ERMWG e. Director, SSEP f. ERMWG; Director, SSEP; Executive Director, PPO; Executive Director, OCP.</p> <p>Estimated completion date: June 1, 2022</p>

Observation	Recommended Action	Management Response
<p>4. EHPA Deficiencies Communication</p> <p>Management did not provide a list of the 23 EHPAs that were not recertified as a result of the 5-year inspections in 2015 and 2018 nor the two EHPAs that were not inspected to the County prior to Hurricane season pursuant to the agreement between the District and the County.</p> <p>These inspection periods included the last three Florida hurricanes to impact Florida's Atlantic Coast: Matthew (October 2016), Irma (September 2017) and Dorian (August/September 2019).</p>	<p>We recommend that management perform the following:</p> <ul style="list-style-type: none"> a. Provide the list of the 23 EHPAs that were not recertified and the two that were not inspected to the County depending on the outcome of observation 2 and the related recommended actions 2.a. and 2.b. as applicable. b. In concert with observations 1 - 3, management should update the list of EHPAs and provide to the County accordingly as any deficiencies are resolved and/or additional deficiencies are identified for each respective EHPA facility. 	<p>Response:</p> <ul style="list-style-type: none"> a. EM is currently compiling information related to these facilities and will have a comprehensive report ready to deliver to the County by end of month February 2022. b. EM and SSEP will develop a tracking and communication platform by which all inspections statuses can be updated by the entities performing them, achieving constant communication and accountability. EM will develop and implement this platform/process in time for the 2022 hurricane season. <p>See Appendix for the respective Chief's concurrence with the above response and additional information, as applicable.</p> <p>Responsible party: Director, SSEP</p> <p>Estimated completion date:</p> <ul style="list-style-type: none"> a. February 28, 2022 b. June 1, 2022

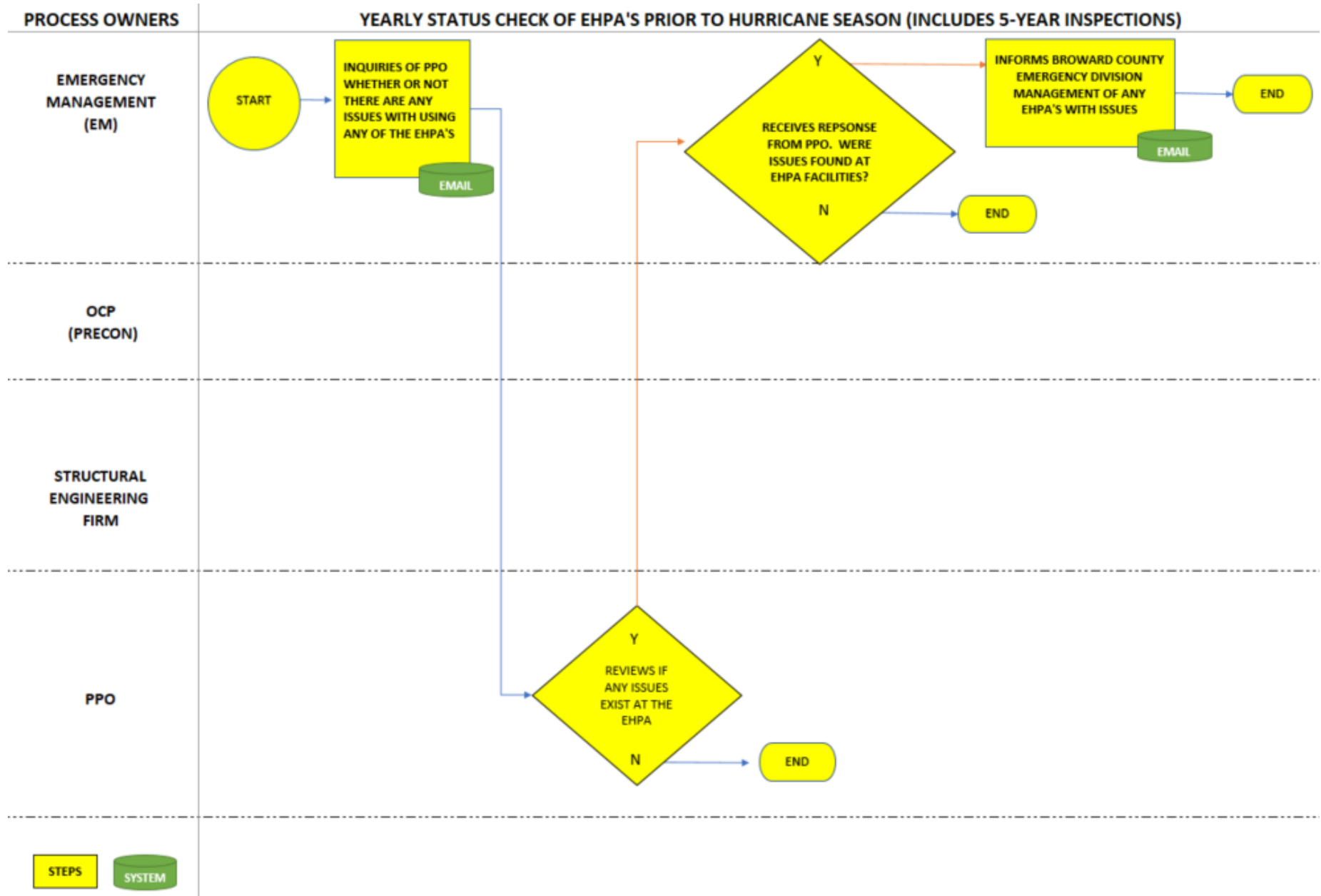
Observation	Recommended Action	Management Response
<p>5. EHPA Inspection & Maintenance Process Ownership</p> <p>No one department, group, or person owns the EHPA inspection and maintenance compliance process from beginning to end to ensure that the required inspections are performed and that any identified deficiencies are accurately addressed and resolved prior to the next hurricane season.</p>	<p>We recommend that management identify a department, group and/or person to take ownership of the EHPA inspection and maintenance process from beginning to end to ensure that the required annual/post-major event inspections are performed and that any identified deficiencies are addressed and resolved in a timely and efficient manner in compliance with sections 453.25.6.4; 453.25.6.3, FBC, Building (effective 1/1/2021).</p>	<p>Response:</p> <p>The ERMWG will take ownership of the EHPA inspection and maintenance process from beginning to end by working in concert with the appropriate parties including, but not limited to: SSEP, PPO, and OCP to facilitate compliance with sections 453.25.6.4; 453.25.6.3, FBC, Building (effective 1/1/2021).</p> <p>See Appendix for the respective Chief's concurrence with the above response and additional information, as applicable.</p> <p>Responsible party: ERMWG</p> <p>Estimated completion date: June 1, 2022</p>

Observation	Recommended Action	Management Response
<p>6. EHPA Inspection & Maintenance Process Documentation</p> <p>Management does not have a documented process in place to ensure the following:</p> <ul style="list-style-type: none"> a. The required annual and post-major events EHPA inspections are performed, b. Any deficiencies are identified, addressed and/or resolved prior to the next hurricane season, and; c. EHPAs with any unresolved deficiencies are properly communicated to the County prior to the next Hurricane season pursuant to the agreement between the District and the County. <p>Pursuant to sections 453.25.6.4; 453.25.6.3, FBC, Building (effective 1/1/2021).</p>	<p>We recommend that SSEP management document the EHPA inspection process, including, but not limited to:</p> <ul style="list-style-type: none"> a. The inspections are to be performed by persons proficient with applicable rules and standards as determined by the district school board in accordance with section 5(1)(a)3, SREF. b. The District should determine whether there are persons proficient within the District as noted in a. to perform the required inspections or whether these inspections need to be outsourced. c. The relevant required elements of the EHPA inspections are to be included in the resulting inspection report in accordance with 5(1)(a)3, SREF. d. Any deficiencies are to be identified, addressed and/or resolved prior to the next hurricane season. e. EHPAs with any unresolved deficiencies (if applicable) must be properly communicated to the County prior to the next Hurricane season in accordance with the contract between the District and the County. f. The proper, recurring funding sources to fund the applicable inspections and maintenance (repairs/renovations) are identified. 	<p>Response:</p> <p>As Emergency Management is the main point of contact and liaison between the District and Broward County, SSEP will be the main driver of documentation efforts. Emergency Management will develop a process by which it can collaborate and communicate with internal and external partners about the status of EHPA initiatives to facilitate compliance with sections 453.25.6.4; 453.25.6.3, FBC, Building (effective 1/1/2021).</p> <p>See Appendix for the respective Chief's concurrence with the above response and additional information, as applicable.</p> <p>Responsible party: Director, SSEP</p> <p>Estimated completion date: June 1, 2022</p>

ATTACHMENT A – PROCESS FLOW – CURRENT STATE



ATTACHMENT A – PROCESS FLOW – CURRENT STATE – CONTINUED



APPENDIX I



Office of Safety, Security and Emergency Preparedness
Leo Nesmith, Task Assigned Chief Safety & Security Officer
600 Southeast Third Avenue
Fort Lauderdale, Florida 33301
phone: 754-321-2655 • fax: 754-321-2704
leo.nesmith@browardschools.com
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**The School Board of
Broward County, Florida**

Dr. Rosalind Osgood, Chair
Laurie Rich Levinson, Vice Chair

Lori Alhadeff
Patricia Good
Debra Hixon
Donna P. Korn
Sarah Leonardi
Ann Murray
Nora Rupert

Dr. Vickie L. Cartwright
Interim Superintendent of Schools

October 29, 2021

TO: Joris Jabouin, Chief Auditor

FROM: Leo Nesmith, Task Assigned Chief Safety & Security Officer 

RE: **Task Assigned Chief Safety & Security Officer Response to EHPA Inspection Report**

As the newly appointed Task Assigned Chief Safety and Security Officer, I have read the EHPA Inspection Report and the staff responses compiled by the Emergency Management section.

SSEP and its Emergency Management section have a steadfast dedication to working with both internal and external partners to ensure the District is prepared to meet its shelter obligations. With over 40 school sites designated as shelters, this is no small task and requires a tremendous level of expertise and resources. To date, meeting those demands has been challenging due to the limited resources within Emergency Management. The team has consisted of one manager and a secretary, effectively one of the smallest such teams in the state when compared to other districts. Additionally, both of those incumbents departed their roles earlier this year due to retirement and internal transfer. While we are addressing some of these staffing challenges via hiring initiatives, there is still much work to do as we onboard new team members and evaluate existing policies and procedures that may be due for revision. Lastly, as my comments below will illustrate, it is imperative all parties involved understand their roles and the collaborative efforts we must employ to meet the demands outlined in the report.

My office is committed to improving the inspection process and is working with PPO, the Chief Fire Official, and other impacted departments to achieve these enhancements.

Key summary points:

1. The EHPA Inspection process is not solely the responsibility of Emergency Management or SSEP, and any new processes or procedures moving forward must recognize and hold accountable all relevant entities who play a critical role in the success of this initiative.
2. Contributions from PPO, Capital Programs, and the Chief Fire Official are needed and of critical importance.

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3. As we work together to define these collaborations, SSEP is willing to commit the budget and resources needed to fulfill our obligations.
4. The Enterprise Risk Management Working Group should be the entity with broader oversight and responsibility over the issues discussed in the report and solutions moving forward.

At the request of Chief Jabouin, I'd like to specifically address our responses to findings 2, 3, 5, and 6.

Observation 2 refers to the EHPA 5-Year Inspection Recertification.

- Recommended action 'c' addresses communication with Broward County regarding EHPA deficiencies and properly resides within the scope of SSEP's Emergency Management section. Emergency Management will continue to function as the main point of contact and liaison between the District and Broward County regarding all shelter and EHPA inspections statuses. Emergency Management currently maintains regular, year-round communication with the County to ensure transparency and timely communication of such efforts. SSEP will work to augment this process by developing a tracking and communication platform by which all involved parties can efficiently and effectively update statuses of their workflows, achieving constant communication and accountability. We will develop and implement this platform/process in time for the 2022 hurricane season.
- Recommended action 'd' refers to the process by which funding for inspections and maintenance projects is identified and has an impact on various divisions, including SSEP. As such, the Enterprise Risk Management Working Group (ERMWG) will assist SSEP, PPO, and OCP as needed in the identification of funding sources.

Observation 3 refers to EHPA Annual/Post-Major Event Inspection & Maintenance.

- Recommended actions 'a' through 'c' discuss the process by which inspections and maintenance are performed. These processes are executed by various divisions, including SSEP via the Chief Fire Official. As such, The ERMWG will work with SSEP, PPO, OCP, and their respective inspection entities to identify and implement the most cost-efficient means to ensure that the required annual and post-hurricane inspections are performed and reported in accordance with section 5(1)(a)3, SREF.
- Recommended actions 'd' and 'e' refer to communicating the results of inspection reports and deficiencies to the County. As the main liaison between the District and the County on emergency management-related matters, SSEP's Emergency Management team will collaborate with internal departments to identify deficiencies, ensuring proper communication and transparency with both internal partners and Broward County as the District works to resolve deficiencies. Additionally, Emergency Management will continue to play a lead role in communicating EHPA and shelter statuses to the County.

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- Recommended action 'f' refers to the process by which funding for inspections and maintenance projects is identified and has an impact on various divisions, including SSEP. As such, the Enterprise Risk Management Working Group (ERMWG) will assist SSEP, PPO, and OCP as needed in the identification of funding sources.

Observation 5 refers to EHPA Inspection & Maintenance Process Ownership

- Recommended action 'a' refers to the current lack of a department or person(s) having ownership over the EHPA inspection and maintenance compliance process. While it is clear this effort demands comprehensive oversight, I do not believe it should not rest solely with one person or department. As the audit illustrates the funding, inspection, certification, maintenance, accountability, and communication of the EHPA process is broad in scope and demands interdepartmental involvement. After discussing the matter with the audit team and other department leaders, we have concluded a high-level group of individuals/departments with the required authority over the relevant processes should have this ownership responsibility. The Enterprise Risk Management Working Group shall fulfill this role.

Observation 6 refers to the EHPA Inspection & Maintenance Process Documentation

- Recommended actions 'a' through 'f' refer to the documentation of all inspection processes, deficiencies, and accountable parties. As Emergency Management is the main point of contact and liaison between the District and Broward County, I agree with the audit's recommended actions and management response, identifying SSEP as the main driver of documentation efforts. Emergency Management will develop a process by which it can collaborate and communicate with internal and external partners about the status of EHPA initiatives.

APPENDIX I

**JERMAINE V. FLEMING, Ed.D., ACTING CHIEF STRATEGY & OPERATIONS OFFICER
OFFICE OF THE CHIEF STRATEGY & OPERATIONS OFFICER**

October 18, 2021

TO: Joris Jabouin
Chief Auditor

FROM: Jermaine V. Fleming, Ed.D.
Acting Chief Strategy & Operations

SUBJECT: **INTERNAL AUDIT THE ENHANCED HURRICANE PROTECTION
AREAS INSPECTION PROCESS**

This communication acknowledges and confirms my receipt and review of the internal audit report that is captioned above. Subsequently, I have reviewed and approved the response to the audit presented by Mr. Mark Dorsett, Executive Director, Physical Plant Operations (PPO).

I will provide the necessary executive support as the PPO team takes action to resolve the finding associated with PPO's scope of work. My executive support will include ensuring the necessary fund allocation is available to the PPO team to execute any projects associated with the audit findings.

Lastly, I have directed the Executive Director of PPO or a designee attend the Enterprise Risk Management Work Group meetings. This work group will evaluate the status and resolution of the Enhanced Hurricane Protection Areas findings.

Please don't hesitate to contact me if you have any questions or need further clarifications.

JVF:dsc
Attachment

APPENDIX I



Established 1915
BROWARD
County Public Schools

SHELLEY N. MELONI, R.A., NCARB, LEED AP, PMP,
Director, Pre-Construction, Office of Capital Programs

PHONE: 754-321-1515

EMAIL: smeloni@browardschools.com

October 13, 2021

TO: Joris M. Jabouin, CPA
Chief Auditor

FROM: Shelley N. Meloni, R.A., NCARB, LEED AP, PMP *SM*
Director, Pre-Construction, Office of Capital Programs

Mark D. Dorsett, Executive Director *[Signature]*
Physical Plant Operations

SUBJECT: **ENHANCED HURRICANE PROTECTION AREAS (EHPA)**
INSPECTION CLARIFICATION

After review of Observation 2, the following represents the Office of Capital Programs' response to the Auditor's recommendation for 2a and 2b;

2a and 2b. Staff reengaged the Engineers of Record (EORs) who had conducted the 2015 and 2018 EHPA 5-Year Inspections. The EORs issued letters that amended and updated their previous findings and conclusions related to all 105 recommendations.

In the letters, the Engineers' wrote that none of the recommendations are life safety risks and that they do not prevent the use of the facility as an EHPA. This was stated as follows:

"We conclude that the EHPAs listed in this letter can be used and be certified as EHPA given that there is no risk to users if the building's condition has not changed since our inspection."

The Engineers' recommendations that have not been corrected by Physical Plant Operations or have not been addressed by the SMART Program, will be reviewed during the next annual inspection. This was stated as follows:

"Any item not addressed in the re-evaluation of our reports and/or confirmation of the condition of the schools is recommended to be reviewed during the annual inspection needed at each school."

For any deficiencies found during the annual inspection, staff will develop a plan and work collaboratively with the Enterprise Risk Management Working Group to address and resolve them in a timely manner.

MDD/SNM:jp

Cc: Sam R. Bays, Task Assigned Executive Director, Office of Capital Program

SAM BAYS
EXECUTIVE DIRECTOR, CAPITAL PROGRAMS (TASK ASSIGNED)
OFFICE OF CAPITAL PROGRAMS

PHONE: 754-321-1525

FAX: 754-321-1501

DATE: October 18, 2021

TO: Joris Jabouin, Chief Auditor

FROM: Sam Bays, Executive Director, Task Assigned
Office of Capital Programs

**SUBJECT: RESPONSES TO THE CRI INTERNAL AUDIT OF THE
ENHANCED HURRICANE PROTECTION AREAS (EHPA)
INSPECTION CLARIFICATION**

Regarding the subject Report, please note that I have read and concur with the memorandum from Shelley Meloni, Director, Pre-Construction, and Mark Dorsett, Executive Director, Physical Plant Operations (PPO), regarding this office's responses to 2a and 2b, and further commit this office to participating with the District's Enterprise Risk Management Working Group in support of this important work.

Additionally, the Office of Capital Programs (OCP) will collaborate with both PPO and Safety, Security, and Emergency Preparedness (SSEP) to develop an annual recurring budget for EHPA inspections, including an annual recurring budget for EHPA repairs not feasible within the annual PPO budget. Any extraordinary expenses identified by the annual inspections (such as a replacement roof not funded by SMART) will be addressed by a specific request for Capital Funds through appropriate Board action.

APPENDIX I



Established 1915
BROWARD
County Public Schools

SHELLEY N. MELONI, R.A., NCARB, LEED AP, PMP,
Director, Pre-Construction, Office of Capital Programs

PHONE: 754-321-1515

EMAIL: smeloni@browardschools.com

October 13, 2021

TO: Joris M. Jabouin, CPA
Chief Auditor

FROM: Shelley N. Meloni, R.A., NCARB, LEED AP, PMP *SM*
Director, Pre-Construction, Office of Capital Programs

Mark D. Dorsett, Executive Director *[Signature]*
Physical Plant Operations

SUBJECT: **ENHANCED HURRICANE PROTECTION AREAS (EHPA)**
INSPECTION CLARIFICATION

After review of Observation 2, the following represents the Office of Capital Programs' response to the Auditor's recommendation for 2a and 2b;

2a and 2b. Staff reengaged the Engineers of Record (EORs) who had conducted the 2015 and 2018 EHPA 5-Year Inspections. The EORs issued letters that amended and updated their previous findings and conclusions related to all 105 recommendations.

In the letters, the Engineers' wrote that none of the recommendations are life safety risks and that they do not prevent the use of the facility as an EHPA. This was stated as follows:

"We conclude that the EHPAs listed in this letter can be used and be certified as EHPA given that there is no risk to users if the building's condition has not changed since our inspection."

The Engineers' recommendations that have not been corrected by Physical Plant Operations or have not been addressed by the SMART Program, will be reviewed during the next annual inspection. This was stated as follows:

"Any item not addressed in the re-evaluation of our reports and/or confirmation of the condition of the schools is recommended to be reviewed during the annual inspection needed at each school."

For any deficiencies found during the annual inspection, staff will develop a plan and work collaboratively with the Enterprise Risk Management Working Group to address and resolve them in a timely manner.

MDD/SNM:jp

Cc: Sam R. Bays, Task Assigned Executive Director, Office of Capital Program

APPENDIX II
J O R G E A G U T I E R R E Z • A R C H I T E C T • L L C

September 14, 2021

Divine E. Amoah, R.A., NCARB, CBO, LEED AP
Manager Architectural Engineering
Pre-Construction Dept.
Office of Capital Programs

Re. 2018 EHPA Inspection Report amendment and updates

Mr. Amoah:

This letter is provided as per the District request to amend our conclusions to the EHPA reports that took place on the period of scheduled inspections of 2018.

Thirty-six (36) recommendations were made in the reports for the 14 facilities inspected during this period. (Refer to the list of schools provided within this letter). Some of the comments and recommendations included in the reports deemed thirteen schools as Not Approved. The deficiencies in question are due to the potential of water intrusion to the buildings and not to structural defects or deficiencies.

A breakdown of the comments and recommendations included in those reports is detailed below:

1. **12 recommendations** in reports call for Installing a protection screening or any other protective measures compliant with missile impact criteria set forth by ASTM E 1996, ASTM E1886 or the Standard Building Code SBC/SSTD 12 on the roof mechanical structures to avoid potential water intrusion.
2. **10 recommendations:** Repair and/or replace windows, doors, component parts, or items that protect them such as shutters or louvers.
3. **12 recommendations:** Due to the age of the roof material and its condition, the fact that the design pressure is higher/lower than the required uplift pressure as per FBC 2014, it is recommended that a pull out test be performed to confirm whether or not the roofing needs to be replaced or repaired. After repairs are completed, perform a pull-out test to confirm if the roofing will withstand the uplift pressure prevailing as per Florida Building Code 2014.
4. **1 recommendation:** Make sure new roofing materials and installation comply with the standards of the FBC 2017.
5. **1 recommendation:** Repair concrete issues – item reported as repaired by PPO.

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J O R G E A G U T I E R R E Z • A R C H I T E C T • L L C

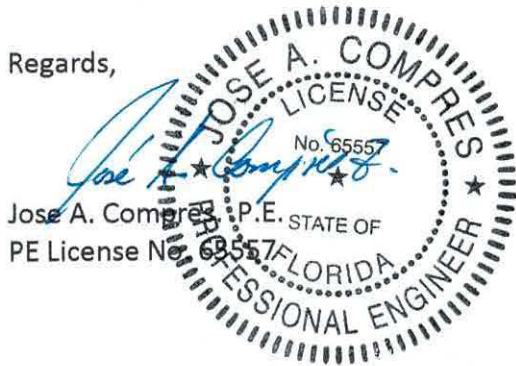
In consideration, the following details were not disclosed in the 2018 reports:

- Rooftop equipment are tied down and this will minimize the possibility of being blown away thus preventing water from entering the building from the roof opening during any hurricane event.
- Door vision panels observed are similar to door vision panels elsewhere in the district with NOA labels (important note: some of these facilities were constructed pre-Florida Building Code where NOA/labels were not requirements of the applicable codes at the time).
- The roof was designed to meet the required uplift pressures of the applicable code at the time of design/construction which was needed to meet the code requirements for EHPA.

After the additional considerations we can conclude that the EHPAs listed in this letter can be used and be re-certified as EHPA given that there is no risk to the users if the buildings condition has not changed since our inspection. Any item not addressed in the re-evaluation of our reports and/or confirmation of the condition of the schools is recommended to be reviewed during the next required annual inspection at each school.

If you have any questions, or you need any additional information in reference to the above, please do not hesitate to contact me.

Regards,



Jose A. Compres, P.E.
PE License No. 65557

APPENDIX II

J O R G E A G U T I E R R E Z • A R C H I T E C T • L L C

Out of 14 schools inspected only 1 was approved, breakdown as follow:

APPROVED	2
1. Hallandale Elementary School	2
NOT APPROVED	34
2. ATC/Rock Island Elementary - Arthur Ashe Middle School	2
3. Coconut Palm Elementary School	2
4. Dolphin Bay Elementary School	2
5. Liberty Elementary School	3
6. Manatee Bay Elementary School	4
7. New Renaissance Middle School	3
8. Orange Brook Elementary School	3
9. Park Lakes Elementary School	1
10. Park Trails Elementary School	3
11. Pines Middle School	3
12. Silver Shores Elementary School	2
13. West Broward High School	3
14. Westglades Middle School	3

Prepared by:

Jose A. Compres P.E.

PE License No. 65537



Reviewed by:

Jorge Gutierrez AIA LEED

Principal



September 22, 2021

Divine E. Amoah, R.A., NCARB, CBO, LEED AP
Manager Architectural Engineering
Pre-Construction Dept.
Office of Capital Programs

Re. 2015 EHPA Inspection Report amendment and updates

Mr. Amoah:

This letter is provided as per the School Board request to amend our conclusions to the EHPA reports that took place on the period of scheduled inspections of 2015.

Sixty nine (69) recommendations were made in the reports for the 26 facilities inspected during this period. (Refer to the list of schools provided within this letter). Some of the comments and recommendations included in the reports deemed ten schools as Not Approved. The deficiencies in question are due to the potential of water intrusion in the building and not to a risk or defect of the structural members that could place the users in danger.

A breakdown of the comments and recommendations included in those reports is detailed below:

- **23 recommendations** in reports call for Installing a protection screening or any other protective measures compliant with missile impact criteria set forth by ASTM E 1996, ASTM E1886 or the Standard Building Code SBC/SSTD 12 on the roof mechanical structures to avoid potential water penetration.
- **13 recommendations:** Repair and/or replace windows, doors, component parts, or items that protect them such as shutters or louvers.
- **24 recommendations:** Due to the age of the roof material and its condition, the fact that the design pressure is higher/lower than the required uplift pressure as per FBC 2014, it is recommended that a pull-out test be performed confirm whether or not the roofing needs to be replaced or repaired. After repairs are completed, perform a pull-out test to confirm if the roofing will withstand the uplift pressure prevailing as per Florida Building Code 2014.
- **7 recommendations:** Repair roof leakage, blistering, buckling, and/or damaged areas.

APPENDIX II

- **2 recommendations:** Repair concrete issues – item repaired by PPO.

When considering the following observations not included in the 2015 reports:

- Rooftop equipment are tied down and this will minimize the possibility of being blown away thus preventing water from entering the building from the roof opening during any hurricane event.
- Door vision panels observed are like door vision panels elsewhere in the district with NOA labels (important note: some of these facilities were constructed pre-Florida Building Code where NOA/labels were not requirements of the applicable codes at the time).
- The roof was designed to meet the required uplift pressures of the applicable code at the time of design/construction which was needed to meet the code requirements for EHPA.

we can conclude that the EHPAs listed in this letter can be used and be re-certified as EHPA given that there is no risk to the users if the buildings condition has not changed since our inspection. Any item not addressed in the re-evaluation of our reports and/or confirmation of the condition of the schools is recommended to be reviewed during the annual inspection needed at each school.

If you have any questions, or you need any additional information in reference to the above, please do not hesitate to contact me.

Regards,



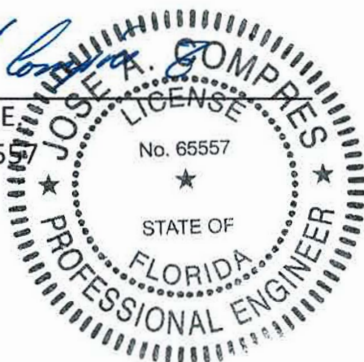
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Out of 26 schools inspected 16 were approved and 10 were not approved:

APPROVED	44
1. Coral Cove Elementary School	2
2. Everglades Elementary School	2
3. Everglades High School	1
4. Gator Run Elementary School	4
5. Indian Ridge Middle School	3
6. Lyons Creek Middle School	5
7. McNicol Middle School	3
8. Monarch High School	2
9. New River Middle School	2
10. Panther Run Elementary School	4
11. Plantation Elementary School	4
12. Pompano Beach High School	1
13. Silver Lakes Elementary School	4
14. Silver Palms Elementary School	2
15. Tradewinds Elementary School	3
16. Watkins Elementary School	2
NOT APPROVED	25
17. Beachside Montessori Village	2
18. Challenger Elementary School	2
19. Coral Glades High School	3
20. Falcon Cove Middle School	2
21. Fox Trail Elementary School	3
22. Lakeside Elementary School	4
23. Parkside Elementary School	3
24. Sheridan Tech High aka Sunset School	3
25. Silver Trail Middle School	1
26. Sunset Lake Elementary School	2

Prepared by:

Jose A. Compres P.E.
PE License No. 65557



Reviewed and Accepted by:

Luciano Perera
Executive Vice President