Broward County Board of Rules and Appeals Meeting Agenda

November 9, 2023 Time: 7:00 PM

Zoom Meeting Information:

https://broward-org.zoomgov.com/j/1617492804 Meeting ID: 161 749 2804

- I. CALL MEETING TO ORDER
- II. ROLL CALL
- III. APPROVAL OF AGENDA
- IV. APPROVAL OF MINUTES October 12, 2023, Board Meeting
- V. **PUBLIC COMMENT (Except public hearing items on this agenda)** Public comments are limited to 3 minutes.

VI. CONSENT AGENDA

1. Certifications - Staff Recommended

CITY OF COOPER CITY

Chin-Sang, Dave, Chief Mechanical Inspector Hassenplug, Jeremy Werner, Chief Plumbing Inspector

TOWN OF DAVIE

Diaz, William, Building Official

CITY OF DEERFIELD BEACH

Belisle, Jean Pierre Atelyo, Chief Plumbing Inspector

CITY OF HOLLYWOOD

Hernandez, Alejandro Alfonso, Plumbing Inspector (120-Day Temporary) West, James, Chief Plumbing Inspector

CITY OF LAUDERHILL

Tuthill, Thomas, Fire Inspector

CITY OF LIGHTHOUSE POINT

Perdue, K-Maron, Building Official

CITY OF PEMBROKE PINES

Diaz, Gregorio, Chief Plumbing Inspector Smith, Jesse, Fire Inspector

COUNTYWIDE

Belisle, Jean Pierre Atelyo, Plumbing Inspector Belisle, Jean Pierre Atelyo, Plumbing Plans Examiner Busutil, Armando, Mechanical Plans Examiner Dawson, Eric Kenneth, Mechanical Plans Examiner Madic, Nebojsa, Structural Plans Examiner Mansor, Simo, Structural Plans Examiner Serafini, Paolo, Structural Plans Examiner

VII. REGULAR AGENDA

1. <u>First reading of the Broward County Amendments, Chapter 1 of the 8th Edition (2023) of the</u> <u>Florida Building Code (FBC)</u>

- a. Staff Report
- b. Board Questions
- c. Board Action

2. <u>Second reading of the Broward County Board of Rules and Appeals Technical Amendments</u> to the 8th Edition (2023) of the Florida Building Code (FBC)

- a. Staff Report
- b. Public Hearing
- c. Board Questions
- d. Board Action

3. <u>Proposed updated BORA Commercial and Residential Energy Guidelines (Performance</u> <u>Option) for the 8th Edition (2023) of the Florida Building Code (FBC)</u>

- a. Staff Report
- b. Board Questions
- c. Board Action

4. <u>Annual Leadership Performance Review for Administrative Director and Consideration</u> <u>for Pay Adjustment</u>

- a. Staff Report
- b. Board Questions
- c. Board Action
- 5. Director's Report
- 6. Attorney's Report
- 7. Committee Reports

8. General Board Member Discussion

9. Adjournment

If a person desires to appeal any decision with respect to any matter considered at this meeting, such person will need a record of the proceedings and, for this reason, such person may need to ensure that a verbatim record of the proceeding is made, which includes the testimony and evidence upon which the appeal is to be based (FS Sec.286.0105)

Members: If you cannot attend the meeting, please get in touch with Dr. Barbosa at 954-931-2393 between 6:00 PM and 7:00 PM.

October 12, 2023 Board Meeting Minutes

Broward County Board of Rules and Appeals Meeting Minutes

October 12, 2023 Time: 7:00 PM

Zoom Meeting Information https://broward-org.zoomgov.com/j/1617492804 Meeting ID: 161 749 2804

I. Call Meeting to Order

Chairman Lavrich called a published virtual meeting of the Broward County Board of Rules and Appeals to order at 7:01 p.m.

- II. Daniel Lavrich, Chairman Gregg D'Attile, Vice Chairman Stephen Bailey Ron Burr Jeff Falkanger R. Art Kamm Sergio Pellecer Daniel Rourke Robert Taylor David Tringo Dennis Ulmer Lynn E. Wolfson
- III. Approval of Agenda

Dr. Ana Barbosa, Administrative Director, requested that Item 2 be removed from the agenda. Mr. D'Attile made a motion, and Mr. Bailey seconded the motion to approve the agenda with the deletion of Item 2, as requested by the Administrative Director. The motion was carried out by a unanimous vote of 11-0.

IV. Approval of Minutes – August 10, 2023, Board Meeting

Mr. Tringo made a motion, and Mr. Burr seconded the motion to approve the August 10, 2023, minutes as submitted. The motion was carried out by a unanimous vote of 12-0.

- V. Public Comment (Except public hearing items on this agenda) Public comments are limited to 3 minutes none
- VI. CONSENT AGENDA
 - 1. Certifications Staff Recommended

BROWARD COUNTY SHERIFF FIRE RESCUE

Burton, Candice, Fire Inspector

CITY OF HOLLYWOOD

Castro Ivan B., Structural Inspector (120-Day Temporary) Londono, Carlos, Fire Inspector Robertson, Jr., Arron, Fire Inspector

CITY OF MARGATE

Gener, John D., Fire Inspector

CITY OF MIRAMAR Palmer, Robert, Fire Inspector

CITY OF OAKLAND PARK French, Christopher, Assistant Fire Marshal

CITY OF PEMBROKE PINES

Macedo, Rafael Elias, Roof Inspector (120-Day Temporary)

CITY OF POMPANO BEACH

Nowalk, Adrian, Structural Inspector (120-Day Temporary) Campbell, Joseph W., Structural Inspector (120-Day Temporary)

CITY OF TAMARAC

Joseph, Tony, Electrical Inspector (120-Day Temporary)

Mr. Ulmer made a motion, and Ms. Wolfson seconded the motion to approve the certifications as recommended. The motion was carried out by a unanimous vote of 12-0.

VII. REGULAR AGENDA

1. <u>First reading of the Broward County Board of Rules and Appeals Technical</u> <u>Amendments to the 8th Edition (2023) of the Florida Building Code</u>

a. Staff Report

Dr. Ana Barbosa, Administrative Director, reviewed her memorandum to the Board and indicated that there are no significant changes. The 8th Edition will be in effect on December 31, 2023. There are four code additions previously adopted that the Board is being asked to re-adopt.

- b. Board Questions
- c. Board Action

Mr. Taylor made a motion, and Mr. Pellecer seconded the motion to approve the amendments on first reading as recommended. The motion was carried out by a unanimous vote of 12-0.

2. <u>First reading of the Broward County Amendments to Chapter 1 of the 8th Edition</u> (2023) of the Florida Building Code

This item was removed from the agenda.

3. <u>Adoption of the Broward County Board of Rules and Appeals Formal</u> Interpretations for the 8th Edition (2023) of the Florida Building Code

a. Staff Report

Dr. Ana Barbosa, Administrative Director, reviewed her memorandum to the Board and noted this is also a re-adoption of the existing formal interpretations with the exception of FI-18 – "Direct venging of solid fuel pizza ovens" and FI-26, "Location of

permanently installed residential standby generator's exhaust" that are not being recommended for renewal because they have been incorporated into the code.

- b. Board Questions
- c. Board Action

Mr. Falkanger made a motion, and Mr. Rourke seconded the motion to approve the interpretations as recommended. The motion was carried out by a unanimous vote of 12-0.

4. <u>Revisions to the Broward County Uniform Data Form for Residential and Light</u> <u>Commercial Air Conditioning Replacements due to changes in the 8th Edition</u> (2023) of the Florida Building Code

a. Staff Report

Mr. Rolando Soto, Chief Mechanical Code Compliance Officer, advised that the new residential code has a section that provides for any appliance or equipment being replaced due to being damaged by flood must comply with the flood provisions. Therefore, the A.C. replacement form is being modified to provide for the applicant to specify whether the appliance or equipment was damaged by a flood.

- b. Board Questions
- c. Board Action

Mr. Ulmer made a motion, and Mr. Falkanger seconded the motion to approve the revisions as recommended. The motion was carried out by a unanimous vote of 12-0.

5. Request for Overnight Vehicle Authorization (OVA)

a. Staff Report

Mr. Ana Barbosa, Administrative Director, explained that Mr. Rolando Soto, Chief Mechanical Code Compliance Officer, is the only code compliance officer that does not have an overnight vehicle based on his residence being in Miami-Dade County. However, records indicate that two previous code compliance officers resided in Palm Beach County and were granted overnight vehicle authorization. She pointed out that it becomes cumbersome when there are meetings in Miami-Dade County that he must attend. For these reasons, she recommended authorization be granted for Mr. Soto.

- b. Board Questions
- c. Board Action

Mr. D'Attile made a motion, and Mr. Bailey seconded the motion to approve the overnight vehicle authorization request for Mr. Rolando Soto as recommended. The motion was carried out by a unanimous vote of 12-0.

6. Update on House Bills 1383 and 735

a. Report

Dr. Ana Barbosa, Administrative Director, reviewed the agenda memorandum relating to the noted house bills being provided to the Board for informational purposes.

Mr. Burr commented that this will have a serious impact on a lot of people throughout the state. Some companies will no longer be able to obtain permits for their customary work.

Mr. Charles Kramer, Board Attorney, agreed with Mr. Burr. He felt there will be adverse consequences beyond that point. There is potential for people to be cheated. People may think individuals are licensed but they simply came to this area from the north, for example, with intent to deceive people. There is no oversight whatsoever. In response to Mr. Burr, Mr. Kramer agreed that a letter to the State would be appropriate.

Mr. Burr questioned if staff has asked municipalities how they intend to handle this. Dr. Barbosa indicated that she has reached out to the County because this is in their realm of responsibility. Staff will keep the cities as up to date as possible with information that becomes available. Some discussion ensued about whether this has to do with occupational licenses or contractor licensing. Mr. Rolando Soto, Chief Mechanical Code Compliance Officer, advised that staff has been informing individuals in classes and whenever there is an opportunity. He explained, for example, the fencing license would be abolished. The only contractors who could obtain the required fencing permit would be residential builders or general contractors. The County licenses that do not have a companion license at the State level are being eliminated. During a general discussion, it was pointed out that for those individuals whose license is being abolished, they would need to secure a contractor's license or find a contractor willing to serve as their qualifier. Mr. Kramer commented that there are specialty services like driveway sealing that do not fit into any state category. A permit would not be required which opens opportunities for deceiving people.

In response to Chairman Lavrich, Mr. Kramer recommended teaming with the County and writing to the State to delineate concerns and site examples. Mr. Kramer offered to work with the County attorneys. He agreed to advise Dr. Barbosa after speaking with the County Attorney's Office. There was consensus approval for Mr. Kramer to proceed accordingly. Dr. Barbosa agreed to keep the Board up to date.

7. Director's Report

Dr. Barbosa introduced Ms. Natasha Strong, the Board's new Operations Manager, a welcome addition to the staff.

Dr. Barbosa asked that Board members confirm delivery of their new code books including the option of a PDF format in addition to the hardcopy.

Mr. Burr asked if there has been any progress with the municipalities concerning contact information for employees involved in permitting being made available to the public on their websites. Dr. Barbosa explained that the building departments do not control the city websites. The solution was to post the contact information on the Board of Rules and Appeals' website with respect to building and fire. Mr. Burr was concerned about contact information for all employees involved in the permitting process, such as engineering, landscaping and zoning personnel. Dr. Barbosa indicated that she would continue to try to have all municipalities include the information on their websites.

8. Attorney's Report

With respect to the My Amelia case concerning virtual inspections, Mr. Charles Kramer advised that he is still waiting for the Fourth District Court of Appeals' reply to the Board's response to the My Amelia's brief.

Mr. Kramer advised that a declaratory relief petition was filed with the Florida Department of Business and Professional Regulation and the Florida Building Commission requesting a determination of whether one is required to be a licensed architect or engineer to prepare drawings for one and two-family homes and townhouses in violation of Broward County's Chapter 1, Section 107, of the Florida Building Code. A presentation was made to the Florida Building Commission and a formal hearing will be held on October 17th.

Open discussion meeting on October 18th at 9 a.m.

The meeting adjourned at 7:55 p.m.

Consent Agenda

Section 1

CITY OF COOPER CITY

Chin-Sang, Dave, Chief Mechanical Inspector Hassenplug, Jeremy Werner, Chief Plumbing Inspector

TOWN OF DAVIE

Diaz, William, Building Official

CITY OF DEERFIELD BEACH

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Belisle, Jean Pierre Atelyo, Plumbing Inspector Belisle, Jean Pierre Atelyo, Plumbing Plans Examiner Busutil, Armando, Mechanical Plans Examiner Dawson, Eric Kenneth, Mechanical Plans Examiner Madic, Nebojsa, Structural Plans Examiner Mansor, Simo, Structural Plans Examiner Serafini, Paolo, Structural Plans Examiner

Regular Agenda

Section 1



Broward County Board of Rules and Appeals

1 N. University Drive Suite, 3500B, Plantation, FL 33324 broward.org/CodeAppeals | 954-765-4500 | rulesboard@broward.org

TO:	Members of the Broward County Board of Rules and Appeals
FROM:	Administrative Director
DATE:	November 9, 2023
RE:	First reading of the Broward County Board of Rules and Appeals, Chapter 1 of the 8 th Edition (2023) of the Florida Building Code (FBC)

Recommendation

It is recommended that the Board of Rules and Appeals adopt, by vote, the revised Chapter 1 of the 8th Edition (2023) of the Florida Building Code (FBC).

<u>Reasons</u>

The 8th Edition of the Florida Building Code will become effective on December 31, 2023. The staff has reviewed BORA's current Chapter, revised the Code or Florida Statute references when needed, and made necessary changes. An effort was made to correct grammatical issues and make Chapter 1 more reader-friendly without changing the meaning of the code sections. The changes have been reviewed by BORA's legal counselor, Mr. Charles Kramer, Esq., and his recommended corrections were included.

Additional Information

Revised FBC Chapter 1 is attached. Stricken through text is language deleted. <u>Underscored</u> text is new or revised language.

Respectfully Submitted,

Dr. Ana C. Barbosa

CHAPTER 1 ADMINISTRATION-BROWARD COUNTY

Section 101 General

101.1 Title. These regulations shall be known as the "Florida Building Code," hereinafter referred to as FBC or "this Code."

101.2 Scope. The provisions of this chapter shall govern the administration and enforcement of the FBC, Fire Protection Provisions of this Code, and Florida Fire Prevention Code. They shall apply countywide in both incorporated and unincorporated areas of Broward County, Florida. The provisions of this Code shall apply to the construction, alteration, relocation, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Exceptions:

- 1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the FBC, Residential, and Broward County Amendments, Chapter 1.
- 2. Code requirements that address snow loads and earthquake protection are pervasive; they are left in place but shall not be utilized or enforced. because Florida has no snow load or earthquake threat.

101.2.1 Appendices. Provisions in the appendices shall not apply unless specifically adopted by the Board of Rules and Appeals.

101.2.2 Definitions.

- 1) Accredited school means a school that meets the same criteria that the state of Florida DPBR uses in evaluating a school for licensing or registration of engineers and architects.
- 2) AHJ (means Authority Having Jurisdiction) shall be a federal, state, local (building or fire service provider), or individual such as a Building Official, Assistant Building Official, Chief Electrical/Mechanical/Plumbing/Structural Inspector, Fire Chief, Fire Marshal/Fire Code Official, or Broward County Board of Rules and Appeals.
- 3) Architect means a registered architect in the state of Florida.
- 4) BCAIB means the Florida Building Code Administrators and Inspectors Board.
- 5) **BORA** means the Broward County Board of Rules and Appeals.
- 6) **CILB** means the Florida Construction Industry Licensing Board.
- 7) ECLB means the Florida Electrical Contractors Licensing Board.
- 8) Engineer means a licensed or Professional Engineer in the state of Florida.
- 9) FAC means Florida Administrative Code.
- 10) **FFPC** means the adopted Florida Fire Prevention Code, including the Broward County Local Fire Amendments. to the Florida Fire Prevention Code.
- 11) Fire Code Manager/Administrator means Fire Code Official or Fire Marshal.
- 12) Fire Service Provider means Fire Department.

- 13) **GC** is an unlimited general contractor licensed by the CILB, the Broward County Central Examining Board, or the Miami-Dade Construction Trades Qualifying Board.
- 14) **HVHZ** means High-Velocity Hurricane Zone.
- 15) **Practice** The term practice as it relates to architects and engineers is deemed to be the active engagement in their field. of Architecture or Engineering.
- 16) <u>Registered Design Professional means a Florida Registered Architect or Florida Licensed</u> <u>Professional Engineer.</u>
- 17) **SFBC** means South Florida Building Code, Broward Edition.
- 18) State means the State of Florida.

(Amend. of 6-9-22, eff. 6-20-22)

101.3 Intent. The purpose of this Code is to establish the minimum requirements to safeguard public health, safety, and general welfare through structural strength, means of egress, facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety of life and property from fire and other hazards attributed to the built environment and to provide safety to firefighters and emergency responders during emergency operations.

101.4 Referenced Codes. The other codes listed in Sections 101.4.1 through 101.4.10 and referenced elsewhere in this Code shall be considered part of the requirements of this Code to the prescribed extent of each such reference.

101.4.1 Electrical. The provisions of Chapter 27 of the FBC, Building, NFPA 70, Fire Protection Provisions of this Code, and <u>the</u> FFPC shall apply to electrical components, equipment, and systems.

101.4.2 Gas. The provisions of the FBC, Fuel Gas, shall apply to the installation of gas piping, gas appliances, and related accessories as covered in this Code. These requirements apply to gas piping systems extending from the point of delivery to the inlet connections of appliances and the installation and operation of residential and commercial gas appliances and related accessories.

101.4.3 Mechanical. The provisions of the FBC, Mechanical, shall apply to the installation of mechanical systems, including, but not limited to, alterations, repairs, replacement, equipment, appliances, fixtures, fittings, and appurtenances, including ventilating, heating, cooling, air conditioning, and refrigeration systems, vacuum, compressed air and pneumatic systems, incinerators, and other energy-related devices.

101.4.4 Plumbing. The provisions of the FBC, Plumbing, and Fire Protection Provisions of this Code and <u>the</u> FFPC shall apply to every plumbing installation, including, but not limited to, alterations, repairs, replacement, equipment, appliances, fixtures, fittings, and appurtenances when connected to a water or sewage systems, compressed air systems, lawn sprinkler systems and all aspects of a medical gas system.

101.4.5 Property Maintenance. Reserved.

101.4.6 Fire Prevention. For provisions related to Fire Prevention, refer to <u>the</u> FFPC as referenced in Florida Statute 633, Broward County Local <u>Amendments to the</u> FFPC as adopted, and the Fire Protection Provisions of this Code as referenced above. The FFPC shall apply to matters affecting or relating to structures, new or existing; processes and premises from the hazard of fire and explosion arising from the storage, handling, or use of structures, materials, or devices; from conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and from the construction, extension, repair, alteration or removal of fire suppression and alarm systems or fire hazards in the structure or on the premises from occupancy or operation.

101.4.7 Energy. The provisions of the FBC, Energy Conservation, shall apply to all matters governing the design and construction of buildings for energy efficiency.

101.4.8 Existing Buildings. The provisions of the FBC, Existing Building, shall apply to matters governing the repair, alteration, change of occupancy, addition to, and relocation of existing buildings.

101.4.9 Accessibility. For provisions related to accessibility, refer to the FBC, Accessibility.

101.4.10 Manufactured Buildings. For additional administrative and special code requirements, see Section 458, FBC, Building, Rule 61-41 FAC, and Florida Statue 553.

Section 102 Applicability

102.1 General. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in any specific case, different sections of this Code specify different materials, methods of construction, or other requirements, the most restrictive shall govern.

102.1.1 The FBC, Fire Protection Provisions of this Code, and <u>the</u> FFPC does <u>do</u> not apply to, and <u>no</u> code enforcement action shall be brought with respect to, zoning requirements, land use requirements, and owner specifications or programmatic requirements <u>which that</u> do not pertain to and govern the design, construction, erection, alteration, modification, repair or demolition of public or private buildings, structures or facilities or to programmatic requirements that do not pertain to enforcement of the FBC and <u>the</u> FFPC. Additionally, a local code enforcement agency may not administer or enforce the FBC, Building, to prevent the siting of any publicly owned facility, including, but not limited to, correctional facilities, juvenile justice facilities, <u>or</u> state universities, community colleges, or public education facilities, as provided by law.

102.2 Building. The provisions of the FBC and <u>the</u> FFPC shall apply to the placement, construction, erection, alteration, modification, repair, equipment, use and occupancy, location, maintenance, relocation, removal, and demolition of every public and private building, structure or facility or floating residential structure, or any appurtenances connected or attached to such buildings, structures or facilities. Additions, alterations, repairs, and changes of use or occupancy group in all buildings and structures shall comply with the provisions provided in the FBC Existing Building and the FFPC. The following buildings, structures, and facilities are exempt from the FBC as provided by law, and any further exemptions shall be as determined by the legislature and provided by law:

- A. Building and structures specifically regulated and preempted by the federal government.
- B. Railroads and ancillary facilities associated with the railroad.
- C. Nonresidential farm buildings on farms.
- D. Temporary buildings or sheds used exclusively for construction purposes.
- E. Mobile or modular structures used as temporary offices, except that the provisions of Part II (<u>Florida Statute</u>, Sections 553.501 <u>through</u> 553.513, Florida Statutes) relating to accessibility by persons with disabilities shall apply to such mobile or modular structures.
- F. Those structures or facilities of electric utilities, as defined in <u>Florida Statute</u>, Section 366.02, <u>Florida Statutes</u>, which are directly involved in <u>the generatingion</u>, transm<u>ittingssion</u>, or distributingon of electricity.
- G. Temporary sets, assemblies, or structures used in commercial motion picture or television production, or any sound-recording equipment used in such production, on or off the premises, except as required in Section 102.2.6 of this Code.
- H. Chickees constructed by the Miccosukee Tribe of Indians of Florida or the Seminole Tribe of Florida. As used in this paragraph, the term "chickee" means an open-sided wooden hut that

has a thatched roof of palm or palmetto or other traditional materials and that does not incorporate any electrical, plumbing, or other non-wood features.

- I. Family mausoleums not exceeding two hundred fifty (250) square feet (23 m²) in area which are prefabricated and assembled on site or preassembled and delivered on-site and have walls, roofs, and a floor constructed of granite, marble, or reinforced concrete.
- J. Temporary housing provided by the Department of Corrections to any prisoner in the state correctional system.
- K. A building or structure having less than one thousand (1,000) square feet (93 m²) which is constructed and owned by a natural person for hunting and which is repaired or reconstructed to the same dimension and condition as existed on January 1, 2011, if the building or structure:
 - 1. Is not rented, or leased, or used as a principal residence;
 - 2. Is not located within the 100-year floodplain according to The Federal Emergency Management Agency's current Flood Insurance Rate Map; and
 - 3. Is not connected to any offsite electric power or water supply.
- L. Swings and other playground equipment accessory to a one- or two-family dwelling.

Exception: Electrical service to such playground equipment shall be in accordance with Chapter 27 of <u>the</u> this FBC, Building Code.

102.2.1 In addition to the requirements of <u>Florida Statute</u>, Sections 553.79 and 553.80 Florida Statutes, facilities subject to the provisions of <u>Florida Statute</u>, Chapter 395 Florida Statutes and <u>Florida Statute</u>, Part II of Chapter 400 Florida Statutes shall have facility plans and specifications (<u>if needed</u>) reviewed and construction surveyed by the state agency authorized to do so under the requirements of <u>Florida Statute</u>, Chapter 395 Florida Statutes and <u>Florida Statute</u>, Chapter 395 Florida Statutes and <u>Florida Statute</u>, Part II of Chapter 400 Florida Statutes and the certification requirements of the Federal Government.

102.2.2 Residential buildings or structures moved into or within a county or municipality shall not be required to be brought into compliance with the state minimum building code in force at the time the building or structure is moved, provided:

- 1. The building or structure is structurally sound and in occupiable condition for its intended use.
- 2. The occupancy use classification for the building or structure is not changed as a result of the move.
- 3. The building is not substantially remodeled.
- 4. Current FFPC requirements for ingress and egress are met.
- 5. Electrical, gas, mechanical, and plumbing systems meet the codes in force at the time of construction and are operational and safe for reconnection.-and
- 6. Foundation plans are sealed by an engineer or architect if required by the FBC, Building or FBC, Residential for all residential buildings or structures of the same occupancy class.

102.2.3 The Building Official shall apply the same standard to a moved residential building or structure as that applied to the remodeling of any comparable residential building or structure to determine whether the moved structure is substantially remodeled. The cost of the foundation on which the moved building or structure is placed shall not be included in the cost of remodeling for purposes of determining whether a moved building or structure has been substantially remodeled.

102.2.4 This section does not apply to the jurisdiction and authority of the Department of Agriculture and Consumer Services to inspect amusement rides or the Department of Financial Services to inspect state-owned buildings and boilers.

102.2.5 <u>BORA shall govern the enforcement of</u> Broward County Building and Fire Codes. enforcement district shall be governed by BORA.

102.2.6 Temporary motion picture and television sets. All temporary plumbing installations shall be installed <u>not to to not</u> create a sanitary nuisance as defined by <u>Florida Statute</u>, Section 386.01, Florida Statutes. A permit shall be required and issued to the producer upon filing an application by the producer for one (1) electrical permit to cover each complete motion picture production or television series.

102.3 Application of references. References to chapter or section numbers or to provisions not specifically identified by number shall be construed to refer to such chapter, section, or provision of this Code.

102.4 Referenced codes and standards. The codes and standards referenced in this Code shall be considered part of the requirements of this Code to the prescribed extent of each such reference and as further regulated in Sections 102.4.1 and 102.4.2.

102.4.1 Conflicts. Where conflicts occur between provisions of this Code and referenced codes and standards, the provisions of this Code shall apply.

102.4.2 Provisions in referenced codes and standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this Code or the Florida Codes listed in Section 101.4, the provisions of this Code or the Florida Codes listed in Section 101.4, as applicable, shall take precedence over the provisions in the referenced code or standard.

102.5 Partial invalidity. Reserved.

102.6 Existing structures. The legal occupancy of any structure existing on the date of adoption of this Code shall be permitted to continue without change, except as is specifically covered in this Code, the FBC, Existing Building, the Fire Protection Provisions of this Code, or <u>the</u> FFPC, or as is deemed necessary by the Building Official for the general safety and welfare of the occupants and the public.

102.6.1 Existing building code violations discovered by the AHJ, owner, or owner's representative(s), or any interested party shall be cited by the Building Official or Fire Marshal/Fire Code Official for such violations. All such violations shall be repaired and corrected in accordance with the SFBC or FBC in effect on the date the structure received a building permit. Existing buildings shall comply with <u>the</u> FFPC and this Code.

102.7 Relocation of manufactured buildings.

- <u>A</u>**1**. Relocation of an existing manufactured building does not constitute an alteration.
- <u>B2</u>. A relocated building shall comply with the wind speed requirements of the new location using the appropriate wind speed map. If the existing building was manufactured in compliance with the Standard Building Code (prior to March 1, 2002), the wind speed map of the Standard Building Code shall be applicable. If the existing building was manufactured in compliance with the FBC (after March 1, 2002), the wind speed map of the FBC shall be applicable.
- <u>C</u>**3**. A relocated building shall comply with the flood hazard area requirements of the new location, if applicable.

102.8 Existing Mechanical Equipment. An agency or local government may not require that existing mechanical equipment located on or above the surface of a roof be installed in compliance with the requirements of the FBC except during reroofing when the equipment is being replaced or moved during reroofing and is not in compliance with the provisions of the FBC relating to roof-mounted mechanical units.

Section 103 Department of Building Safety

Reserved.

Section 104 Powers and Duties of the Building Official, Assistant Building Official, Fire Code Official, Chief Inspector, Plan Examiner, and Inspector

104.1 Building Official . As set forth herein:

104.1.1 Appointment of a Building Official. The appointing authority shall appoint a Building Official, and such person shall meet the following minimum qualifications and be certified by BORA, as specified in Section 104.1.3. The Building Official does not have to be personally present at the governmental department as long as he or she they are is available and can perform his or her duties. Individuals holding multiple certifications issued by BORA for permanent position of Building Official are restricted to qualifying a maximum of two (2) jurisdictions unless specifically approved by the Board. Individuals currently qualifying more than two (2) jurisdictions are not required to obtain Board approval to maintain their current status until recertification. The City Manager of each jurisdiction shall be notified by BORA staff at any time that a Building Official is approved by the Board to serve more than one jurisdiction.

they are available and can perform their duties.

104.1.1.1 Appointment of an Interim Building Official.

- a. In the event that If the Building Official is not available to perform their duties, each appointing authority shall appoint an Interim Building Official provided such person is qualified as set forth in Section 104.1.3 of this Code, BORA shall be timely notified in writing by the Building Official or appointing authority of the starting date and period of time that the interim Building Official or assistant Building Official will assume the Building Official's duties. BORA shall record the name of the interim Building Official will be recorded by BORA, but they will not be issued a certification card as a Building Official. An Interim Building Official's appointment will be limited to ninety (90) calendar days. At the written request of the Chief Executive Officer (city manager, acting city manager, or mayor) for demonstrated cause, a one-time ninety (90) calendar days extension may be granted by BORA's Administrative Director. Any additional extensions beyond this point must be requested in writing to BORA's Administrative Director a minimum of forty-five (45) calendar days prior to the second-period expiration date. This request must be reviewed and approved by the Board of Rules and Appeals at its next regularly scheduled meeting. If there is one Inspector hired by an appointing authority in Broward County, that Inspector shall be a Building Official . The Building Official shall have the authority to delegate powers, duties, and assignments to subordinate regular employees working under their authority but only to those employees certified by BORA as gualified to perform such powers, duties, and assignments. It shall be their duty and responsibility to supervise and coordinate the work of all subordinate Assistant Building Official s, Chief Inspectors, Plans Examiners, and Inspectors.
- b. In the event that If the Building Official's employment with the jurisdiction is terminated, an interim Building Official may be appointed while the Building Official is being replaced with a permanent appointee. The interim Building Official shall be qualified as a Building Official as specified in Section 104.1.3. An interim Building Official's appointment will be limited to ninety (90) calendar days. At the written request of the Chief Executive Officer (city manager, acting city manager, or mayor) for demonstrated cause, a one-time ninety (90) calendar days extension may be granted by BORA's Administrative Director. Any additional extensions beyond this point must be requested in writing to BORA's Administrative Director a minimum of forty-five (45) calendar days prior to the second-period expiration date. This request must be reviewed and approved by the Board of Rules and Appeals at its next regularly scheduled meeting. <u>BORA shall record</u> the

name of the interim Building Official will be recorded by BORA, but they will not be issued a certification card as a Building Official.

104.1.2 Powers and Duties of the Building Official. The Building Official shall be vested with the powers and subject to regulations, as provided by <u>Florida Statute</u>, Chapter 468 Florida Statutes, and BORA, as set forth in Section 113 of this Code. The Building Official is hereby authorized and directed to enforce the provisions of this Code. The Building Official shall delegate powers, duties, and assignments to BORA-certified Chief Inspectors to render interpretations of this Code and to adopt policies and procedures in order to clarify the application of the technical provisions of this Code in categories in which the Building Official is not certified. Such interpretations, policies, and procedures shall be in compliance with the intent and purpose of this Code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this Code.

104.1.2.1 The Building Official or Chief Plumbing Inspector shall have the power to abate any nuisance by the issuance of issuing a notice in writing to correct or eliminate the nuisance within a reasonable amount of time.

104.1.3 Certification of the Building Official and the Assistant Building Official. To be eligible for appointment as a Building Official or Assistant Building Official, such person shall be certified as required by BCAIB as a building code administrator.

104.1.3.1 Such person shall be certified by BORA and shall meet at least one of the following qualifications:

104.1.3.1.1 A Florida registered architect or Florida licensed professional engineer having practiced for at least seven (7) years, a minimum of five (5) years shall have been within the jurisdiction of the HVHZ.

104.1.3.1.2 Ten (10) years combined experience as a master electrician, electrical contractor, general contractor, master mechanical, mechanical contractor, Class A air conditioning contractor, master plumber, plumbing contractor, chief inspector, standard plans examiner or Standard inspector appointed by an AHJ or school board within the state of Florida. A minimum of five (5) years shall have been within the jurisdiction of the HVHZ.

104.1.3.2 As part of the experience requirements above, the applicant shall have been appointed as Chief Inspector, standard plans examiner or Standard inspector by an AHJ or School Board within the State of Florida for a minimum of two (2) years.

104.1.3.3 Each of the applicants shall possess a current Certificate of Competency or a Professional Engineer License or Architect Registration issued by at least one (1) of the following entities:

1. Florida Construction Industry Licensing Board as a GC, mechanical contractor, or plumbing contractor.

2. Florida Electrical Contractors Licensing Board as an electrical contractor.

3. Broward County Central Examining Board of Building Construction Trades (as Class A unlimited general contractor.)

4. Broward County Central Examining Board of Electricians as a master electrician or electrical contractor.

5. Broward County Central Examining Board of Mechanical Contractors and Specialty Mechanical Contractors as a mechanical contractor or Class A air conditioning contractor.

6. Broward County Central Examining Board of Plumbers as a master plumber.

7. Miami-Dade County Construction Trades Qualifying Board for any of the above-referenced disciplines.

- 8. Florida Board of Architecture and Interior Design.
- 9. Florida Board of Professional Engineers.

104.1.3.4 An applicant for certification as Building Official or Assistant Building Official under the provisions of this section may only substitute two (2) years <u>of</u> HVHZ experience with two (2) years of statewide experience <u>and</u> by passing the BORA HVHZ exam.

104.1.3.5 An applicant for certification as a Building Official or Assistant Building Official under the provisions of this section who is a graduate <u>of</u> from an accredited school <u>may be credited for</u> <u>a maximum of two (2) years for a bachelor's degree or a maximum of one (1) year for an</u> <u>associate degree towards the combined experience requirements</u>. The holding a-bachelor's or associate must be a science degree in engineering, architecture, or building construction. from an accredited school may be credited for a maximum of two (2) years for Bachelor's Degree or a maximum of one (1) year for an Associate Degree towards the combined experience requirements. This credit is not applicable towards the requirements under Section 104.1.3.1.1.

104.1.3.6 The application for certification of the Building Official or Assistant Building Official shall be signed by the jurisdiction's Chief Executive Officer (city manager, acting city manager, or mayor).

104.2 Assistant Building Official. As set forth herein:

104.2.1 Appointment of an Assistant Building Official. Each appointing authority may appoint a person qualified as set forth in Section 104.1.3 to serve as an Assistant Building Official. To be eligible for appointment as an Assistant Building Official, such person shall be certified by BORA and shall meet the qualifications equal to the requirements for a Building Official. No other title is recognized for certification by BORA.

104.2.2 Powers and Duties of the Assistant Building Official. The Assistant Building Official shall be vested with the powers and subject to regulations, as provided by Florida Statute, Chapter 468, and BORA, as set forth in Section 113 of this Code. The Assistant Building Official shall be responsible for duties as assigned by the Building Official. The Assistant Building Official shall fulfill the duties of the Building Official during their absence of the Building Official with full responsibilities of the position.

104.3 Appointment of the Chief Electrical, Mechanical, Plumbing, and Structural Inspector. As set forth herein: Each appointing authority shall appoint a person qualified as set forth in the below sections to serve as a Chief Inspector in each discipline stated above. If there is one (1) inspector of each discipline stated above, hired by an appointing authority in Broward County, that inspector shall be a Chief Inspector (Chief or head of the division). The Chief Inspector (Chief or head of the division) does not have to be personally present at the governmental department as long as he or she they are available and can perform their duties. Individuals holding multiple certifications issued by BORA for permanent position of Chief Inspector are restricted to qualifying a maximum of two (2) jurisdictions unless specifically approved by the Board. Individuals currently qualifying more than two (2) jurisdictions are not required to obtain Board approval to maintain their current status until recertification. The City Manager of each jurisdiction shall be notified by BORA staff at any time that a Chief Inspector is approved by the Board to serve more than one jurisdiction. To be eligible for appointment as a Chief inspector (each discipline stated above), such person shall be certified by BORA.

104.3.1 Interim Chief Inspector. In the event that <u>If</u> a Chief Inspector's employment is terminated with a jurisdiction or is otherwise unavailable, an interim Chief inspector may be appointed for up to ninety (90) days while the Chief Inspector is being replaced with a permanent

appointee. An approved application for a Chief Inspector must be submitted to BORA <u>before</u> prior to the expiration of the ninety (90) days <u>expires</u>. <u>Any additional extensions beyond this</u> point must be requested in writing to BORA's Administrative Director a minimum of forty-five (45) calendar days prior to the second-period expiration date. This request must be reviewed and approved by the Board of Rules and Appeals at its next regularly scheduled meeting. The interim Chief Inspector shall be qualified as a Chief Inspector as specified in Section 104.5, 104.6, 104.7, or 104.8 of this Code. BORA shall be notified in writing by the Building Official of the name and starting date of the interim Chief Inspector. BORA will record the name of the The name of the interim Chief Inspector will be recorded by BORA, but they will not be issued a certification card as the Chief Inspector.

104.4 Powers and Duties of the Chief Electrical, Mechanical, Plumbing, and Structural Inspector. The Chief Inspector (each discipline stated above) shall be vested with the powers and subject to regulations by BORA as set forth in Section 113 of this Code. The Chief Inspector shall have the power to delegate powers, duties, and assignments to subordinate regular employees working under their authority but only to those employees certified by BORA as qualified to perform such powers, duties, and assignments within their particular discipline. It shall be their duty and responsibility to supervise and coordinate the work of all subordinate plans, examiners, and inspectors within their particular discipline. The Chief Inspector shall have the sole authority to render interpretations of this Code and to adopt policies and procedures in order to clarify the application of its provisions within their particular discipline. Such interpretations, policies, and procedures shall comply be in compliance with the intent and purpose of this Code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this Code.

104.5 Certification of the Chief Electrical Inspector. To be eligible for appointment as a Chief Electrical Inspector, such person shall be certified as required by BCAIB as an electrical plans examiner and as an electrical inspector. Engineers are exempt from BCAIB certification.

104.5.1 Such person shall be certified by BORA and shall meet the following qualifications:

104.5.1.1 An electrical plans examiner serving for a minimum of one (1) year for an AHJ or school board within the state of Florida and who complies with at least one (1) of the qualifications of Section 104.10.2.1.

104.5.2 Each of the applicants shall possess a current Certificate of Competency or a professional license in the discipline requested as a master electrician or electrical contractor or engineer issued by at least one of the following entities:

- A. Florida Electrical Contractors Licensing Board.
- B. Broward County Central Examining Board of Electricians.
- C. Miami-Dade County Construction Trades Qualifying Board.
- D. Florida Board of Professional Engineers.

104.6 Certification of the Chief Mechanical. To be eligible for appointment as a Chief Mechanical Inspector, such person shall be certified as required by BCAIB as a mechanical plans examiner and as a mechanical inspector. Engineers are exempt from BCAIB certification.

104.6.1 Such person shall be certified by BORA and shall meet the following qualifications:

104.6.1.1 A Mechanical Plans Examiner serving for a minimum of one (1) year for an AHJ or School Board within the state of Florida and who complies with at least one (1) of the qualifications of Section 104.10.3.1.

104.6.2 Each of the applicants shall possess a current Certificate of Competency or a professional license in the discipline requested as a master mechanical or mechanical contractor or Class A air conditioning contractor or engineer issued by at least one (1) of the following entities:

- A. Florida Construction Industry Licensing Board.
- B. Broward County Central Examining Board of Mechanical Contractors and Specialty Mechanical Contractors.
- C. Miami-Dade County Construction Trades Qualifying Board.
- D. Florida Board of Professional Engineers.

104.7 Certification of the Chief Plumbing Inspector. To be eligible for appointment as a Chief Plumbing Inspector, such person shall be certified as required by BCAIB as a plumbing plans examiner and as a plumbing inspector. Engineers are exempt from BCAIB certification.

104.7.1 Such person shall be certified by BORA and shall meet the following qualifications:

104.7.1.1 A Plumbing Plans Examiner serving for a minimum of one (1) year for an AHJ or School Board within the State of Florida and who complies with at least one (1) of the qualifications of Section 104.10.4.1.

104.7.2 Each of the applicants shall possess a current Certificate of Competency or a professional license in the discipline requested as a master plumber, or plumbing contractor, or engineer issued by at least one (1) of the following entities:

- A. Florida Construction Industry Licensing Board.
- B. Broward County Central Examining Board of Plumbers.
- C. Miami-Dade County Construction Trades Qualifying Board.
- D. Florida Board of Professional Engineers.

104.8 Certification of the Chief Structural Inspector. To be eligible for appointment as a Chief Structural Inspector, such person shall be certified as required by BCAIB as a standard plans examiner and standard inspector or be a Florida Registered Architect or Florida Licensed Professional Engineer in the discipline requested.

104.8.1 Such person shall be certified by BORA and shall meet the following qualifications:

104.8.1.1 Be a Standard Plans Examiner appointed as such for a minimum of one (1) year by an AHJ or School Board within the State of Florida and who complies with at least one (1) of the qualifications of Section 104.10.1.1.

104.8.2 Each of the applicants shall possess a current Certificate of competency as a <u>GC general contractor</u> or a Professional Engineer License or Architect registration issued by at least one (1) of the following entities:

- A. Florida Construction Industry Licensing Board.
- B. Broward County Central Examining Board of Building Construction Trades.
- C. Miami-Dade County Construction Trades Qualifying Board.
- D. Florida Board of Professional Engineers.
- E. Department of Business and Professional Regulation as an Architect.

104.9 Appointment of the Electrical, Mechanical, Plumbing, and Structural Plans Examiner. As set forth herein: Each appointing authority shall appoint a person qualified as set forth in the above and below

sections to serve as plans examiner in each discipline as stated above. To be eligible for appointment as a plans examiner, such <u>a</u> person shall be certified by BORA.

104.10 Powers and Duties of the Electrical, Mechanical, Plumbing, and Structural Plans Examiner. The plans examiner shall be responsible for duties as assigned by the Chief Inspector within their particular discipline. The plans examiner shall fulfill the duties of the Chief Inspector during the absence of the Chief Inspector with full responsibilities of the position within their particular discipline. The plans examiner shall examine all plans and specifications, and applications for permits within their particular discipline. When approvals by other agencies having authority may logically be required to be affixed to the plans and specifications before approval by the plans examiner, such approval shall be affixed to the plans and specifications before examination by the plans examiner. If the application, plans, or specifications do not conform to the requirements of all pertinent laws or regulations, the plans examiner shall reject such application in writing, stating the reasons therefore and citing the relevant code section(s). Plans or specifications which are rejected, as stated hereinabove, shall be returned for corrections. If the applications, plans, or specifications, plans, or specifications which are rejections, upon examination, are found to comply with the requirements of this Code, the plans or specifications shall be signed and marked approved.

104.10.1 Certification of the Structural Plans Examiner. To be eligible for appointment as a Structural Plans Examiner, such person shall be certified by BCAIB as a standard plans examiner or be a Florida Registered Architect or Florida Licensed Professional Engineer in the discipline requested.

104.10.1.1 Such person shall also be certified by BORA by meeting at least one (1) of the following:

104.10.1.1.1 Be a Florida Registered Architect or a Florida Licensed Professional engineer in the discipline requested and having practiced for a minimum of five (5) years within the state of Florida, two (2) years of which shall have been within the HVHZ or by passing BORA's HVHZ exam.

104.10.1.1.2 Be a Standard Inspector appointed as such for a minimum of one (1) year by an AHJ or School Board within the State of Florida and who complies with at least one (1) of the qualifications of Section 104.16.3.1.

104.10.1.2 Limited plans examiner certifications may be issued to individuals holding current building contractor or residential contractor licenses and who otherwise meet the requirements of the appropriate section under which they are qualifying, with duties limited to the scope of work authorized by their license.

104.10.1.3 Each of the applicants shall possess a current Certificate of Competency or a Professional Engineer License or Architect Registration issued by at least one (1) of the following entities:

- A. Florida Construction Industry Licensing Board.
- B. Broward County Central Examining Board of Building Construction Trades.
- C. Miami-Dade County Construction Trades Qualifying Board.
- D. Florida Board of Professional Engineers Department of Business and Professional Regulation as an Architect.

104.10.2 Certification of the Electrical Plans Examiner. To be eligible for appointment as an Electrical Plans Examiner, such person shall be certified as required by BCAIB as an electrical plans examiner and as an electrical inspector. Engineers are exempt from BCAIB certification.

104.10.2.1 Such person shall be certified by BORA and shall meet at least one of the following qualifications:

104.10.2.1.1 An engineer in the discipline requested and having practiced for a minimum of five (5) years within the State of Florida.

104.10.2.1.2 An electrical inspector serving for a minimum of one (1) year for an AHJ or School Board within the State of Florida and who complies with at least one (1) of the qualifications of Section 104.12.3.1.

104.10.2.2 Each of the applicants shall possess a current Certificate of Competency or a professional license in the discipline requested as a master electrician or electrical contractor or engineer issued by at least one (1) of the following entities:

- A. Florida Electrical Contractors Licensing Board.
- B. Broward County Central Examining Board of Electricians.
- C. Miami-Dade County Construction Trades Qualifying Board.
- D. Florida Board of Professional Engineers.

104.10.3 Certification of the Mechanical Plans Examiner. To be eligible for appointment as a Mechanical Plans Examiner, such person shall be certified as required by the BCAIB as a mechanical plans examiner and as a mechanical inspector. Engineers are exempt from BCAIB certification.

104.10.3.1 Such person shall be certified by BORA and shall meet at least one of the following qualifications:

104.10.3.1.1 An Engineer in the discipline requested and having practiced for a minimum of five (5) years within the State of Florida.

104.10.3.1.2 A Mechanical Inspector serving for a minimum of one (1) year for an AHJ or School Board within the State of Florida and who complies with at least one (1) of the qualifications of Section 104.13.3.1.

104.10.3.2 Each of the applicants shall possess a current Certificate of Competency or a professional license as a master mechanical, mechanical contractor, Class A air conditioning contractor, Class B air conditioning contractor, or engineer issued by at least one (1) of the following entities:

- A. Florida Construction Industry Licensing Board.
- B. Broward County Central Examining Board of Mechanical Contractors and Specialty Mechanical Contractors
- C. Miami-Dade County Construction Trades Qualifying Board.
- D. Florida Board of Professional Engineers.

104.10.3.2.1 Individuals holding a license as a Class B Air Conditioning Contractor, with a current Certificate of Competency issued by the above-mentioned Boards, shall have duties limited to the examination of air conditioning and mechanical plans within the scope of their Certificate of Competency.

104.10.4 Certification of the Plumbing Plans Examiner. To be eligible for appointment as a Plumbing Plans Examiner, such person shall be certified as required by BCAIB as a plumbing plans examiner and as a plumbing inspector. Engineers are exempt from BCAIB certification.

104.10.4.1 Such person shall be certified by BORA and shall meet at least one of the following qualifications:

104.10.4.1.1 An Engineer in the discipline requested and having practiced for a minimum of five (5) years within the state of Florida.

104.10.4.1.2 A Plumbing Inspector serving for a minimum of one (1) year for an AHJ or school board within the state of Florida and who complies with at least one (1) of the qualifications of Section 104.14.3.1.

104.10.4.2 Each of the applicants shall possess a current Certificate of Competency or a professional license in the discipline requested as a master plumber or plumbing contractor or engineer issued by at least one (1) of the following entities:

- A. Florida Construction Industry Licensing Board.
- B. Broward County Central Examining Board of Plumbers.
- C. Miami-Dade County Construction Trades Qualifying Board.
- D. Florida Board of Professional Engineers.

104.11 Powers and Duties of the Electrical, Mechanical, Plumbing, Roofing, and Structural Inspector. The Electrical, Mechanical, Plumbing, Roofing, and Structural Inspectors shall comply with <u>the</u> rules and regulations of this Code, enforcing all the laws, rules, and regulations relating thereto in the area of jurisdiction and enforcing all the provisions of this Code. If defects, omissions, or violations exist on any other part relating to work for which approval is requested, the issuance of the approval shall be withheld until corrections have been made to the defective portion and the same are made to comply with this Code. <u>The Inspector can issue a partial approval if authorized by the discipline Chief or Building Official.</u> The Inspector shall serve notice to the contractor/representative or owner/representative in writing, stating the reasons therefore and citing the relevant code section(s) of this Code.

104.12 Electrical Inspector. As set forth herein:

104.12.1 Appointment of an Electrical Inspector. Each appointing authority shall appoint a person qualified as set forth in Section 104.12.3 to serve as an electrical inspector. To be eligible for appointment as an electrical inspector, such a person shall be certified by BORA.

104.12.2 Powers and Duties of the Electrical Inspector.

104.12.2.1 Such employee shall have the duties and powers as delegated by the Chief Electrical Inspector, except that the Chief may not delegate authority to subordinates to interpret provisions of the electrical code.

104.12.2.2 It shall be the duty of the Electrical Inspector to inspect any work on electrical installations shall be held to include and govern all work and materials used in installing, maintaining, or extending a system of electrical wiring for the use of light, heat, power or low voltage systems, and all appurtenances, apparatus, or equipment used in connection therewith, inside of or attached to any building or structure, lot or premises) and every electrical system or device (all wiring, apparatus, and equipment, and all installations for light, heat, power, and low voltage systems) installed in new construction, additions, alterations, or repairs to existing electrical systems, apparatus, or equipment in existing construction.

104.12.2.3 The Electrical Inspector shall issue an approval for all installations of light, heat, power, and low voltage systems (burglar alarms, central vacuums, communications, computer systems, fiber optics, fire alarms, telephone, television, and all other systems ninety-eight (98) volts and less) that comply with the rules and regulations of the electrical code.

104.12.2.4 A 30-day temporary electrical service connection shall be approved by the Electrical Inspector where the need for electrical power exists if the wiring installation, apparatus, or equipment is found to be in a safe operating condition. Under these circumstances, an application for temporary service shall be made in writing by the electrical contractor, firm,

corporation, or <u>owner shall make an application for temporary service in writing</u> requesting a temporary service connection to the public utility system or isolated generating plant.

104.12.2.5 The Electrical Inspector is hereby empowered to inspect or re-inspect any wiring, equipment, or apparatus used in the installation of light, heat, power, or low voltage systems, and if this wiring, equipment, apparatus, or low voltage system is found to be unsafe to life or property, the Electrical Inspector shall serve notice to the owner or operator, in writing, stating the reasons therefore and citing the relevant code section(s) of this electrical code, that the hazardous wiring or equipment exists and shall be corrected within a reasonable period of time.

104.12.2.6 The Electrical Inspector is hereby given the power to disconnect extension cords, temporary wiring, branch circuits, feeder conductors, or the main service supplying electrical energy to any portion of an electrical wiring system in buildings, or on-premises if this wiring is in the opinion of the Electrical Inspector, considered to be hazardous to life or property. Any person, firm, or corporation supplying current shall disconnect service from the source of supply upon instructions from the Chief Electrical Inspector where hazards are deemed to exist after receiving written notice citing the appropriate code section(s) of this electrical code from the electrical inspector.

104.12.3 Certification of the Electrical Inspector. To be eligible for appointment as an Electrical Inspector, such person shall be certified as required by BCAIB as an electrical inspector. Engineers are exempt from BCAIB certification.

104.12.3.1 Such person shall be certified by BORA and shall meet at least one of the following qualifications:

104.12.3.1.1 An Engineer in the discipline requested.

104.12.3.1.2 Five (5) years <u>of</u> construction experience in the electrical discipline in a supervisory capacity and possess a Certificate of Competency as a master electrician or electrical contractor.

104.12.3.1.3 Five (5) years <u>of</u> construction experience in the electrical discipline and five (5) years experience as an electrical inspector certified by BCAIB and possessing a Certificate of Competency as a master electrician or electrical contractor.

104.12.3.1.4 Seven (7) years <u>of</u> construction experience in the electrical discipline and <u>possess</u> a Certificate of Competency as a journeyman electrician.

104.12.3.1.5 Ten (10) years <u>of</u> experience as an electrical inspector certified by BCAIB. A person with multi-discipline certifications can only be certified in one (1) discipline. A person certified under this section is exempt from Section 104.12.3.2.

104.12.3.2 Each of the applicants shall possess a current Certification of Competency or a professional license in the discipline requested as a master electrician or electrical contractor or journeyman electrician or engineer issued by at least one (1) of the following entities:

- A. Florida Electrical Contractors Licensing Board.
- B. Broward County Central Examining Board of Electricians.
- C. Miami-Dade County Construction Trades Qualifying Board, Block proctored.
- D. Florida Board of Professional Engineers.

104.12.3.3 An applicant for certification as an electrical inspector under the provisions of this section who is a graduate from an accredited school holding a bachelor or associate in science degree in electrical engineering may be credited for two (2) years for a bachelor's degree or one

(1) year for an associate degree towards the combined experience requirements. This credit is not applicable to the requirements under Section 104.12.3.1.1.

104.13 Mechanical Inspector. As set forth herein:

104.13.1 Appointment of a Mechanical Inspector. Each appointing authority shall appoint a person qualified as set forth in Section 104.13.3 to serve as mechanical inspector. To be eligible for <u>an</u> appointment as a mechanical inspector, such person shall be certified by BORA.

104.13.2 Powers and Duties of the Mechanical Inspector.

104.13.2.1 Such employee shall have the duties and powers as delegated by the Chief Mechanical Inspector, except that the Chief may not delegate authority to subordinates to interpret provisions of this mechanical code.

104.13.2.2 The Mechanical Inspector shall issue an approval for all installations of mechanical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings, and appurtenances thereto, including ventilating, heating, cooling, air conditioning, and refrigeration systems and other energy-related systems that comply with the rules and regulations of this mechanical code.

104.13.2.3 It shall be the duty of the Mechanical Inspector to inspect all installations of ventilation, air conditioning, and refrigeration systems and equipment. Existing installations not conforming to the requirements of the this <u>FBC</u>, Mechanical Code shall be made to comply, when relocated, or when altered or repaired, in compliance with the FBC, Existing Building. The Mechanical Inspector shall enforce all the laws, rules, and regulations relating thereto in the area of jurisdiction and to enforce all the provisions of the this <u>FBC</u>. Mechanical Code.

104.13.3 Certification of the Mechanical Inspector. To be eligible for appointment as a mechanical inspector, such person shall be certified as required by the BCAIB as a mechanical inspector. Engineers are exempt from BCAIB certification.

104.13.3.1 Such person shall be certified by BORA and shall meet at least one (1) of the following qualifications:

104.13.3.1.1 An Engineer in the discipline requested.

104.13.3.1.2 Five (5) years <u>of</u> construction experience in the mechanical discipline in a supervisory capacity and possess a Certificate of Competency as a master mechanical. or mechanical contractor, Class A air conditioning contractor, or Class B air conditioning contractor.

104.13.3.1.3 Five (5) years <u>of</u> construction experience in the mechanical discipline and five (5) years experience as a mechanical inspector certified by BCAIB and possess a Certificate of Competency as a master mechanical or mechanical contractor or Class A air conditioning contractor or Class B air conditioning contractor.

104.13.3.1.4 Seven (7) years <u>of</u> construction experience in the mechanical discipline and possess a Certificate of Competency as a journeyman mechanical.

104.13.3.1.5 Ten (10) years <u>of</u> experience as a mechanical inspector certified by BCAIB. A person with multi-discipline certifications can only be certified in one (1) discipline. A person certified under this section is exempt from Section 104.13.3.2.

104.13.3.2 Each of the applicants shall possess a current Certificate of Competency or a professional license in the discipline requested as a master mechanical, or mechanical contractor, Class A air conditioning contractor, Class B air conditioning contractor, or journeyman mechanical or engineer issued by at least one (1) of the following entities:

- A. Florida Construction Industry Licensing Board.
- B. Broward County Central Examining Board of Mechanical Contractors and Specialty Mechanical Contractors.
- C. Miami-Dade County Construction Trades Qualifying Board.
- D. Florida Board of Professional Engineers.

104.13.3.2.1 Individuals holding licenses as a Class B Air Conditioning Contractor, with a current Certificate of Competency issued by the above-mentioned boards, shall have duties limited to the inspection of air conditioning and mechanical work within the scope of their certificate of competency.

104.13.3.3 An applicant for certification as a Mechanical Inspector under the provisions of this section who is a graduate from an accredited school holding a bachelor's or an associate of science degree in mechanical engineering may be credited for two (2) years for a bachelor's degree or one (1) year for an associate degree towards the combined experience requirements. This credit is not applicable to the requirements under Section 104.13.3.1.1.

104.14 Plumbing Inspector. As set forth herein:

104.14.1 Appointment of a Plumbing Inspector. Each appointing authority shall appoint a person qualified as set forth in Section 104.14.3 to serve as plumbing inspector. To be eligible for <u>an</u> appointment as a plumbing inspector, such person shall be certified by BORA.

104.14.2 Powers and Duties of the Plumbing Inspector.

104.14.2.1 Such employee shall have the duties and powers as delegated by the Chief Plumbing Inspector, except that the Chief may not delegate authority to subordinates to interpret provisions of this plumbing Code.

104.14.2.2 The Plumbing Inspector shall issue an approval for all installations of plumbing and sanitary systems, appliances, plumbing fixtures, fittings, and appurtenances thereto, including heating and storing water, backflow and back siphonage, public and private sewer disposal, and drainage systems that comply with the rules and regulations of this plumbing Code.

104.14.2.3 It shall be the duty of the Plumbing Inspector to inspect all new plumbing or drainage systems or parts thereof or additions, alterations, repairs, or changes to the existing plumbing or drainage installations or fixtures or appliances shall conform to the requirements of this plumbing Code. The plumbing inspector shall enforce all the laws, rules, and regulations relating thereto in the area of jurisdiction and to enforce all the provisions of the plumbing Code.

104.14.2.4 It shall be the duty of the Plumbing Inspector to inspect any plumbing system they have reason to believe has become unsanitary or defective. Nothing contained in this Plumbing Code shall be deemed to require any plumbing or drainage system or part thereof, or any other work regulated by this Plumbing Code and existing prior to the effective date of this Plumbing Code, to be altered, changed, reconstructed, removed or demolished if such work was installed in accordance with all applicable laws in effect prior to the date this Plumbing Code became effective, except when any such plumbing or drainage system or other work regulated by this Plumbing Code is dangerous, unsafe, unsanitary or a menace to life, health or property, in the opinion of the Plumbing Inspector.

104.14.2.5 All installations regulated by this Plumbing Code or related drainage work shall be maintained and executed in such a manner as to not to constitute a nuisance or to threaten or impair the health of any individual or the public in general. The contents of such installations shall not be permitted to overflow in a building, on a premise, or upon the surface of the ground, street, or sidewalk. It shall be unlawful for any person, firm, or corporation, whether owner or agent, to create, keep, cause, maintain, propagate, or permit the existence of a nuisance as defined in this Plumbing Code. Any building or premises found to be

unsanitary or inadequate, or which constitute a health or safety hazard, or which by reason of illegal use or improper use, occupancy, or maintenance constitute a violation of the provisions of this Plumbing Code, shall be deemed to be unsafe. The Plumbing Inspector shall have the power to abate any nuisance by the issuance of a notice to correct or eliminate the nuisance within a reasonable length of time.

104.14.3 Certification of the Plumbing Inspector. To be eligible for appointment as a plumbing inspector, such person shall be certified as required by BCAIB as a plumbing inspector. Engineers are exempt from BCAIB certification.

104.14.3.1 Such person shall be certified by BORA and shall meet at least one of the following qualifications:

104.14.3.1.1 An Engineer in the discipline requested.

104.14.3.1.2 Five (5) years <u>of</u> construction experience in the plumbing discipline in a supervisory capacity and possess a Certificate of Competency as a master plumber or plumbing contractor.

104.14.3.1.3 Five (5) years <u>of</u> construction experience in the plumbing discipline and five (5) years experience as a plumbing inspector certified by BCAIB and possess a Certificate of Competency as a master plumber or plumbing contractor.

104.14.3.1.4 Seven (7) years <u>of</u> construction experience in the plumbing discipline and possess a Certificate of Competency as a Journeyman Plumber.

104.14.3.1.5 Ten (10) years <u>of</u> experience as a plumbing inspector certified by BCAIB. A person with multidiscipline certifications can only be certified in one (1) discipline. A person certified under this section is exempt from Section 104.14.3.2.

104.14.3.2 Each of the applicants shall possess a current Certificate of Competency or a professional license in the discipline requested as a master plumber or plumbing contractor or journeyman plumber issued by at least one (1) of the following entities:

- A. Florida Construction Industry Licensing Board.
- B. Broward County Central Examining Board of Plumbers.
- C. Miami-Dade County Construction Trades Qualifying Board.
- D. Florida Board of Professional Engineers.

104.14.3.3 An applicant for certification as a plumbing inspector under the provisions of this Section who is a graduate from an accredited school holding a bachelor's or an associate of science degree in mechanical engineering may be credited for two (2) years for a bachelor's degree or one (1) year for an associate degree towards the combined experience requirements. This credit is not applicable to the requirements under Section 104.14.3.1.1.

104.15 Roofing Inspector. As set forth herein:

104.15.1 Appointment of a Roofing Inspector. Each appointing authority shall appoint a person qualified as set forth in Section 104.15.3 to serve as a roofing inspector. To be eligible for appointment as a roofing inspector, such person shall be certified by BORA.

104.15.2 Powers and Duties of the Roofing Inspector.

104.15.2.1 Such employee shall have the duties and powers as delegated by the Chief Structural Inspector, except that the Chief may not delegate authority to subordinates to interpret provisions of this Code. If properly certified, <u>a</u>A roofing inspector or <u>certified standard structural inspector</u> may be assigned to perform roofing inspections as delegated by the Chief Structural Inspector. certified standard inspectors may be assigned duties as a roofing inspector.

104.15.2.2 The Roofing Inspector shall serve notice to the roofing contractor/representative or owner/representative in writing, stating the reasons therefore and citing the relevant code section(s).

104.15.3 Certification of the Roofing Inspector. To be eligible for appointment as a roofing inspector, such person shall be certified by BCAIB as a standard <u>structural</u> inspector or standard roofing inspector or be a Florida Registered Architect or Florida Licensed Professional Engineer in the discipline requested.

104.15.3.1 Such person shall also be certified by BORA by meeting at least one of the following:

104.15.3.1.1 Be a Florida Registered Architect or a Florida Licensed Professional Engineer in the discipline requested with two (2) years of HVHZ experience or passing BORA's HVHZ exam.

104.15.3.1.2 Be a BCAIB-certified Standard <u>Structural</u> Inspector or Standard roofing inspector with five (5) years of experience within the state of Florida, two (2) years of which shall have been within the HVHZ or by passing BORA's HVHZ exam. An individual qualifying through this path shall be required to acquire a roofing contractor license, by exam, from either the Construction Industry Licensing Board (CILB), Broward County Examining Board, or the Miami-Dade Construction Trades Qualifying Board within one (1) year of initial certification.

104.15.3.1.3 Be a licensed Roofing Contractor, by exam, from either the Construction Industry Licensing Board (CILB), Broward County Examining Board, or the Miami-Dade Construction Trades Qualifying Board with at least five (5) years of experience within the state of Florida in the roofing discipline with that License of which two (2) years shall have been within the HVHZ or by passing BORA's HVHZ exam.

104.15.3.1.4 Five (5) years <u>of</u> construction experience within the State of Florida in the roofing discipline in a supervisory capacity, of which at least two (2) years shall have been within the HVHZ or by passing BORA's HVHZ exam. An individual qualifying through this path shall be required to acquire a Roofing Contractors License, by exam, from either the Construction Industry Licensing Board (CILB), Broward County Examining Board, or the Miami-Dade Construction Trades Qualifying Board within one (1) year of initial certification as an inspector.

104.15.3.1.5 Ten (10) years <u>of</u> construction experience within the State of Florida in the roofing discipline, of which at least two (2) years shall have been within the HVHZ or by passing BORA's HVHZ exam. An individual qualifying through this path shall be required to acquire a roofing contractor's license, by exam, from either the Construction Industry Licensing Board (CILB), Broward County Examining Board, or the Miami-Dade Construction Trades Qualifying Board within one (1) year of <u>the</u> initial certification as an inspector.

104.15.3.2 An applicant for certification as a roofing inspector under the provisions of this section who is a graduate from an accredited school holding a bachelor or associate of science degree in engineering, architecture, or building construction may be credited for two (2) years for bachelor's degree or one (1) year for an associate degree towards the combined experience requirements. This credit is not applicable to the requirements under Section 104.15.3.1.1.

104.15.3.3 An applicant for certification as <u>a</u> roofing inspector under the provisions of this section may only substitute the required two (2) years <u>of HVHZ</u> experience with two (2) years of statewide experience and by passing the BORA HVHZ exam.

104.16 Structural Inspector. As set forth herein:

104.16.1 Appointment of a Structural Inspector. Each appointing authority shall appoint a person qualified as set forth in Section 104.16.3 to serve as a structural inspector. To be eligible for appointment as a structural inspector, such person shall be certified by BORA.

104.16.2 Powers and Duties of the Structural Inspector. Such employee shall have the duties and powers as delegated by the Chief Structural Inspector, except that the Chief may not delegate authority to subordinates to interpret provisions of this Code.

104.16.2.1 The Structural Inspector shall serve notice to the structural contractor/representative or owner/representative in writing, stating the reasons therefore and citing the relevant code section(s).

104.16.2.2 The Structural Inspector shall issue an approval for installations of all building components, as listed in Section 110.3 of this Code.

104.16.3 Certification of the Structural Inspector. To be eligible for appointment as a structural inspector, such person shall be certified by BCAIB as a standard Inspector or be a Florida Registered Architect or Florida Licensed Professional Engineer in the discipline requested.

104.16.3.1 Such person shall also be certified by BORA by meeting the requirements of at least one (1) of the following:

104.16.3.1.1 Be a Florida Registered Architect or a Florida Licensed Professional Engineer in the discipline requested with two (2) years of HVHZ experience or by passing BORA's HVHZ exam.

104.16.3.1.2 Be a BCAIB certified Standard Inspector in the structural discipline with five (5) years of experience within the State of Florida, of which two (2) years shall have been within HVHZ or by passing <u>the</u> BORA's HVHZ exam. An individual qualifying through this path shall be required to acquire a GC license by exam within one (1) year of initial certification as an inspector.

104.16.3.1.3 Be a licensed GC with at least five (5) years of experience within the state of Florida in the Structural discipline with that license, of which two (2) years shall have been within the HVHZ or by passing the BORA's HVHZ exam.

104.16.3.1.4 Five (5) years <u>of</u> construction experience in the structural discipline in a supervisory capacity, of which at least two (2) years shall have been within the jurisdiction of HVHZ or by passing <u>the</u> BORA's HVHZ exam. An individual qualifying through this path shall be required to acquire an unlimited GC license, by exam, from either the Construction Industry Licensing Board (CILB), Broward County Examining Board, or the Miami-Dade Construction Trades Qualifying Board, within one (1) year of initial certification as an inspector.

104.16.3.1.5 Ten (10) years <u>of</u> construction experience in the structural discipline, of which at least two (2) years shall have been within the jurisdiction of the HVHZ or by passing <u>the</u> BORA's HVHZ exam. An individual qualifying through this path shall be required to acquire an Unlimited GC license, by exam,-from either the Construction Industry Licensing Board (CILB), Broward County Examining Board, or the Miami-Dade Construction Trades Qualifying Board within one (1) year of initial certification as an inspector.

104.16.3.2 An applicant for certification as a structural inspector under the provisions of this section who is a graduate from an accredited school holding a bachelor or associate of science degree in engineering, architecture, or building construction may be credited for two (2) years for bachelor's degree or one (1) year for an associate degree towards the combined experience requirements. This credit is not applicable to the requirements under Section 104.16.3.1.1.

104.16.3.3 Limited building or residential inspector certifications may be issued to individuals holding current building contractor or residential contractor licenses and who otherwise meet the requirements of the appropriate section under which they are qualifying, with duties limited to the scope of work authorized by their license.

104.16.3.4 An applicant for certification as a structural inspector under the provisions of this section may only substitute the required two (2) years of HVHZ experience with two (2) years of statewide experience and by passing the BORA HVHZ exam.

104.16.3.5 Building Inspectors (structural) certified by BORA on or after July 1, 2020, shall be required to obtain a Reinforced Unit Masonry certification within two years from their initial BORA certification date.

104.17 Certification of Building Departments and Building Code Inspection Enforcement Personnel. BORA shall certify each and every Building Department after it has determined to its satisfaction that the building code inspection enforcement personnel are qualified by the provisions of this Code. These positions shall include, at a minimum, the Building Official, Chief Electrical Inspector, Chief Mechanical Inspector, Chief Plumbing Inspector, and Chief Structural Inspector.

104.17.1 Only such persons that have been examined and certified by BORA may be appointed or have the powers and duties of a Building Official, Assistant Building Official, or Chief Inspector. Each Building Official, Assistant Building Official, and Chief Inspector shall obtain a separate card for each governmental AHJ by which they are employed. Plans examiners and inspectors shall be issued a single certification card that is valid countywide upon approval.

104.17.2 The certification of Building Department inspection personnel may be revoked, for cause, by BORA. BORA may deny, refuse to renew, suspend, or revoke <u>the</u> BORA certification of a Building Official, Assistant Building Official, Chief Inspector, Plans Examiner, or Inspector if it finds that any of the following grounds exist:

- A. Any cause for which issuance of a certificate could have been refused had it then existed and been known to BORA.
- B. Violation of FBC.
- C. Falsification of records relating to the certificate.
- D. Having been found guilty of or having pleaded guilty or nolo contendere to a felony, whether or not a judgment of conviction has been entered.
- E. Failure to meet any of the renewal requirements.
- F. Having been convicted of a crime in any jurisdiction <u>that</u> which directly relates to the practice of the building code inspection, plan review, or administration.
- G. Making or filing a report or record that the certificate holder knows to be false, knowingly inducing another to file a false report or record, knowingly failing to file a report or record required by the state or local law, or knowingly impeding or obstructing such filings, or knowingly inducing another person to impede or obstruct such filing.
- H. Failure to properly enforce applicable building codes or permit requirements within this state, which the certificate holder knows are applicable by committing willful misconduct, gross negligence, gross misconduct, repeated negligence, or negligence resulting in a significant danger to life or property.
- I. Accepting labor, service, or materials at no charge or at a noncompetitive rate from any person who performs work that is under the enforcement authority of the certificate holder and who is not an immediate family member of the certificate holder. For the purpose of this paragraph, the term "immediate family member" means a spouse, child, parent, sibling, grandparent, aunt, uncle, or first cousin of the person or the person's spouse or any person who resides in the primary residence of the certificate holder. BORA, upon verification of the above grounds, shall immediately notify the Building Official, Assistant Building Official, Chief Inspector, Plans Examiner, or the Inspector involved, who, upon notification from BORA, shall appear before the Board to explain why their certification should not be revoked.

104.17.3 When Building Departments fail to meet certification criteria, they will immediately be notified to cease activities until such time as the requirements of this Code are met.

104.17.4 Application for certification shall contain such pertinent information as is considered relevant by BORA.

104.17.5 Certification shall be for the remainder of the current biennial certification period for initial employment and shall be renewed biennially on January 1 of each even-numbered year thereafter. When a Building Official, Assistant Building Official, or Chief inspector resigns from their position, their card becomes inactive until they again return to work for a Building Department. At, at which time, upon proper application, they will be issued a new certification card, at a renewal fee in the amount appropriate for each discipline according to the BORA fee schedule for certification.

104.17.6 Applications for certification will not be considered unless the application is made on a form prescribed by BORA.

104.17.7 Certification Fee. Reserved.

104.17.8 Within ten (10) days of receipt of a properly completed application, the Secretary to BORA (administrative director) shall, after <u>reviewing performing a review of</u> the application, grant temporary certification, limit certification to a particular discipline, or deny it, stating the reasons for <u>the</u> denial. Any such determination is subject to <u>BORA's</u> final review and approval or revision by BORA. The temporary certification shall only be effective through the date of final action by BORA with respect to the application. The Secretary of BORA may delegate this duty to the Chief Code Compliance Officers.

104.17.9 Certification may be withdrawn, rescinded, or suspended if, upon investigation, it is found that the certified person has failed to enforce the code, abused the powers of office, or withheld or concealed information on the application which, if known to BORA, may have been cause for denying certification.

104.17.10 Any person whose certification has been denied, withdrawn, or rescinded may appeal to BORA in an open meeting and may produce witnesses and be represented by counsel in support of their claim.

104.17.11 Suspension of Certification Requirements. See Section 113.11.7.

104.17.12 Temporary and provisional certifications. Temporary and provisional certifications shall comply with Florida Statute 468.609 and FAC Chapter 61G19-6.

104.18 Recertification of Building Departments and Building Code Inspection Enforcement Personnel.

104.18.1 All Building Departments shall be recertified biennially by BORA. To be recertified, all Building Officials, Assistant Building Officials, Chief Inspectors, Plans Examiners, and Inspectors who are presently certified by BORA shall meet the following criteria and comply with the current requirements for initial certification:

104.18.1.1 Be currently certified by BORA.

104.18.1.2 Be presently employed by a governmental AHJ (building department) within Broward County. See Section 104.17.

104.18.1.3 All Building Officials, assistant Building Officials, Chief Inspectors, Plans Examiners, and Inspectors to be recertified shall obtain twenty-eight (28) contact hours within a two (2) consecutive calendar year biennial renewal period (starting January 1, on an even year, through December 31, of the next odd year) by attending a classroom or online education courses, workshops, and seminars, any of which shall be approved by BORA, the Miami-Dade County Code Compliance Office, or the Florida Department of Business and Professional Regulation. Continuing education contact hours shall include courses approved as discipline-specific category (courses which are specific to the code chapters enforced by the specific discipline) and non-discipline-specific category general courses. Specific cCourses mandated for license holders by the state of Florida Boards shall be classified as non-discipline-specific general courses unless clearly indicated as discipline-specific by a State agency. A minimum of one-half (½) of the twenty-eight (28) contact hours within a two (2) consecutive calendar year biennial renewal period shall be <u>the</u> discipline-specific category. Meetings of BORA committees shall be counted as one (1) hour in the non-discipline-specific general category, and professional association meetings shall be counted as not to exceed one (1) hour in the discipline-specific category for a maximum of fourteen (14) contact hours within a two (2) consecutive calendar year biennial renewal period.

104.18.1.4 Prorating of continuing education contact hours. For any person newly certified, the required continuing education is prorated according to the number of months remaining in the renewal period. To determine the continuing education required, divide the number of months remaining in the renewal period from the time of certification by twenty-four (24) and multiply the result by twenty-eight (28). The result, rounded up to the next round number, is the number of continuing educational hours required. Half of these hours shall be discipline-specific. Any person newly certified within less than six (6) months remaining in the renewal period shall not be required to have any continuing educational credits.

104.18.2 A previously employed Building Official, Assistant Building Official, Chief Inspector, Plans Examiner, or Inspector may be recertified biennially upon <u>presenting the presentation of</u> twenty-eight (28) contact hours of education accumulated during the previous two (2) consecutive calendar years.

104.18.3 If certification is not renewed and allowed to lapse, the application for recertification shall be accompanied <u>by</u> with proof acceptable to BORA that the twenty-eight (28) contact hour requirement of continued education has been met.

104.18.4 BORA may request a list of currently employed personnel who are to be recertified for the ensuing new biennial period. By December 5 of the second year (the odd-numbered year) of a biennial renewal period, on a form as approved by BORA, each Building Official shall submit to BORA a list of currently employed personnel who are to be recertified for the ensuing new biennial renewal period, on a form as approved by BORA. Be effective on January 1 of each biennial renewal period (the even-numbered year).

(Amend. of 7-14-22, eff. 7-25-22)

104.19 Fire Prevention Bureau. A Fire Prevention Bureau shall be established within the fire department, under the direction of the fire Chief, which shall consist of such fire department personnel as may be assigned thereto by the fire Chief, in accordance with the requirements prescribed herein. The function of this bureau shall be to assist the fire Chief in the administration and enforcement of the Fire Protection Provision of this Code and the FFPC. Personnel assigned to the bureau as the fire marshal, fire code official, fire plans examiner, or fire inspector shall be certified by BORA As set forth herein (<u>S</u>see <u>F-103</u>, also Broward Local Fire Amendments to <u>the</u> FFPC.)

104.19.1 Appointment, Powers and Duties, and Certification of the Fire Marshal/Fire Code Official, Fire Plans Examiner, or Fire Inspector. The fire Chief There shall be appointed by the fire Chief certain fire prevention personnel to be assigned to the Fire Prevention Bureau to serve as fire marshal, fire code official, fire plans examiner, or fire inspector. See F-103.1, Broward Local Fire Amendments to the FFPC.

104.19.1.1 Certification of fire marshal, fire code official, fire plans examiner, or fire inspector shall comply with the requirements set forth in the Broward County Amendments to the FFPC.

104.19.1.2 Powers and Duties. The fire marshal or fire code official, fire plans examiner, or fire inspector shall be vested with the powers and perform the duties as set forth in the Broward County Amendments to the FFPC.

104.19.2-1 <u>Permits.</u> <u>See F-103.2.3</u>, <u>Broward Local Fire Amendments to the FFPC.</u> <u>No enforcing agency may</u> issue any permit for construction, erection, alteration, repair, or demolition until the Building Official, in conjunction with the appropriate fire plans examiner, has reviewed the plans or specifications for such proposal and both officials have found the plans or specifications to be in compliance with the FFPC and the applicable fire safety standards as determined by the local authority in accordance with the FFPC and Florida Statute, Chapter 633, Florida Statutes. In the event that If an agreement cannot be reached between the building and fire officials, the dispute shall be referred to the Fire Code Committee for review and recommendation to BORA.</u>

104.19.2.12 Industrial construction on sites where design, construction, and fire safety are supervised by appropriate design and inspection professionals and which contain adequate in-house Fire Departments is exempt, subject to local government option, from review of plans or specifications and inspections, providing owners certify that applicable codes and standards have been met and supply appropriately approved drawings to the building department. The enforcing agency shall issue a permit to construct, erect, alter, repair, or demolish any building when the plans or specifications for such proposal comply with the Fire Protection Provisions of this Code, FFPC, and Florida Statute, Chapter 633., Florida Statues.

104.19.2.23 Approval of Fire Department accessibility and all tests of fire alarm detection and suppression systems, smoke evacuation systems, and life safety systems shall be conducted prior to final structural inspection and issuance of Certificate of Occupancy. (See Section 111.)

104.20 Stop-Work Orders. See <u>F-103.2.6</u>, Broward Local Fire Amendments to the FFPC and Section 115, Stop Work Order of this Code.

104.21 Orders to Eliminate Dangerous or Hazardous Conditions. See F-103.2.9, Broward Local Fire Amendments to the FFPC. Whenever fire Chief or their duly authorized representative shall find in any building or upon any premises dangerous or hazardous conditions or materials, including, but not limited to, violations of the requirements encompassed in Chapter 633, Florida Statutes, or the following paragraphs, they shall order such violations and dangerous conditions or materials removed or remedied.

104.21.1 Dangerous or unlawful amounts of combustible or explosive or otherwise hazardous materials.

104.21.2 Hazardous conditions arising from defective or improperly installed equipment for handling or using combustible or explosive or otherwise hazardous materials.

104.21.3 Dangerous accumulation of rubbish, wastepaper, boxes, shavings, or other flammable materials.

104.21.4 Accumulations of dust or waste material in air conditioning or ventilation systems or of grease in kitchen or other exhaust ducts.

104.21.5 Obstructions to, on, or under fire escapes, stairs, passageways, or doors, liable to interfere with the operations of the fire department or egress of occupants; locked exits shall constitute an unsafe condition.

Exception: Unless permitted by the Fire Protection Provisions of this Code and FFPC.

104.21.6 Obstruction to windows. Where windows are required to provide the second means of escape from a room or area, the following are prohibited:

A. Bars that cannot be opened from the inside.

B. Other obstructions, such as security grills.

Exception: Only one (1) window or door is required to meet the above where two (2) windows or doors are in the same room or area unless permitted by the Fire Protection Provisions of this Code and the FFPC.

104.21.7 Any building or other structure which for want of requires repairs, lacks of adequate exit facilities, automatic or other fire alarm systems apparatus, or fire extinguishing equipment, or by reason of age or dilapidated conditions, or from any other cause, creates a hazardous condition.

104.21.8 Any building or structure vacated or unoccupied shall be properly secured to prevent entry by unauthorized persons.

104.21.9 The improper storage, transporting, or handling of all classes of flammable or combustible liquids or otherwise hazardous substances in any place within the enforcing jurisdiction.

104.22 Certification. All Fire Department inspection personnel shall be certified by BORA as set forth in the current Broward County Amendments to the FFPC.

104.23 Recertification. See F-103.7, Broward Local Fire Amendments to the FFPC. All Fire Department,/Fire Prevention Bureau inspection personnel shall be recertified by BORA as set forth in the current Broward County Amendments to the FFPC.

104.24 Applications and permits. Reserved. See Section 105.

104.25 Notices and Orders. The Building Official or their duly authorized representative or <u>Fire Marshal/Fire Code</u> <u>Official</u> or their duly authorized representative shall issue all necessary notices or orders to ensure compliance with this Code, the Fire Protection Provisions of this Code, the FFPC, and all Fire Codes.

104.25.1 Concealed Work. The Building Official or their duly authorized representative or <u>Fire Marshal/Fire</u> <u>Code Official</u> or their duly authorized representative may order portions of the structural frame of a building or structure to be exposed for inspection when, in their opinion, there is a good reason to believe that a building or portion thereof is in an unsafe or dangerous condition or that there is willful or negligent <u>of</u> concealment of a <u>suspected</u> violation of this Code, the Fire Protection Provisions of this Code, <u>the</u> FFPC, and all Fire Codes.

104.26 Inspections. Reserved. See Section 110.

104.27 Identification. Reserved.

104.28 Right of Entry. Upon presentation of proper credentials, the Building Official, their duly authorized representative or <u>Fire Chief, Fire Marshal/Fire Code Official</u>, or their duly authorized representative may enter, at any reasonable time, any building, structure, or premises for the purpose of making any inspection or investigation, which falls under the provisions of this Code, or the FFPC.

104.29 Department records. Reserved.

104.30 Liability. Reserved.

104.31 Modifications. Reserved.

104.32 Alternative materials, design, and methods of construction and equipment. The provisions of the technical codes are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this Code, provided any such alternative has been reviewed and approved by the Building Official, <u>Fire Marshal, or Fire Code Official</u> (according to the Fire Protection Provisions of this Code and <u>the FFPC</u>) where the proposed alternative meets all the following:

- A. An alternative material, design, or method of construction shall be approved where the Building Official or Fire Marshal/Fire Code Official (according to the Fire Protection Provisions of this Code and <u>the</u> FFPC) finds that the proposed design is satisfactory and complies with the intent of the provisions of this Code., and; that
- B. The material <u>or</u> method of construction offered for the purpose intended is at least the equivalent <u>to or greater than</u> of that prescribed in the technical codes in quality, strength, effectiveness, fire resistance, durability, and safety.

Where alternate life safety systems are designed, the "SFPE Engineering Guide to Performance-Based Fire Protection Analysis and Design of Buildings" or other methods approved by the Building Official or Fire Marshal/Fire Code Official (according to the Fire Protection Provisions of this Code and <u>the</u> FFPC) may be used. The Building Official or Fire Marshal/Fire Code Official (according to the Fire Protection Provisions of this Code and <u>the</u> FFPC) shall require that sufficient evidence or proof be submitted to substantiate any claim made regarding the alternative. Where the alternative material, design, or method of construction is not approved, the Building Official, or Fire Marshal, or Fire Code Official shall respond in writing, stating the reasons why the alternative was not approved.

104.32.1 Research reports. Supporting data, where necessary to assist in <u>approving</u> the approval of materials or assemblies not <u>expressly</u> specifically provided for in this Code, shall consist of valid research reports from approved sources.

104.32.2 Tests. Whenever there is insufficient evidence of compliance with the provisions of this Code, or evidence that material(s) or method does not conform to the requirements of this Code, or in order to substantiate claims for alternative materials or methods, the Building Official, <u>Fire Marshal, or Fire Code</u> <u>Official</u> shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. Test methods shall be as specified in this Code or by other recognized test standards. In the absence of recognized and accepted test methods, the Building Official, <u>Fire Marshal, or Fire Code Official</u> shall approve the testing procedures. Tests shall be performed by an approved agency. Reports of such tests shall be retained by the Building Official <u>Fire Marshal, or Fire Code Official</u> for the period <u>mandated for required for the retention of public records</u>.

104.32.3 Accessibility. Alternate designs and technologies for providing access to and usability of a facility for persons with disabilities shall be in accordance with provisions of the FBC, Accessibility.

104.33 Standards. The types of construction or materials or methods of design referred to in this Code shall be considered as standards of quality and strength. New types of construction or materials or methods of design shall be at least equal to these standards for the corresponding use intended.

104.34 Approved materials and equipment. Materials, equipment, and devices approved by the Building Official, <u>Fire Marshal, or Fire Code Official</u> shall be constructed and installed in accordance with such approval.

104.34.1 Used materials and equipment. The installation of used <u>or reconditioned materials and equipment</u> which that meet the requirements of this Code for new materials is permitted. Used equipment and devices shall not be installed unless approved by the Building Official. <u>Used equipment and devices shall carry a one-year warranty from the date of installation.</u>

104.35 Application for the use of alternative methods and materials.

104.35.1 Any person desiring to use types of construction or materials or methods of design not specifically mentioned in this Code shall file with the Building Official, <u>Fire Marshal, or Fire Code Official</u>, in writing, authentic proof in support of claims that may be made regarding the sufficiency of such types of construction, materials or methods of design and request approval and permission for their use. Such documentation shall be attached to and be made a part of the permit documents.

104.35.2 The Building Official, Fire Marshal, Or Fire Code Official shall approve such alternate types of construction, or-materials or methods of design if it is clear that the standards of this Code are at least equal <u>or greater</u>. If, in the opinion of the Building Official Or Fire Marshal, <u>or</u> Fire Code Official, the standards of this Code will not be satisfied by the requested alternate, they shall refuse approval.

104.36 Appeal. Any person whose request for alternate types of construction and materials or methods of design has been denied by the Building Official, Fire Marshal, or Fire Code Official may appeal to BORA or Fire Code Committee by written request to the Secretary of the Board. Such and such written request shall be transmitted to BORA or Fire Code Committee if fire-related. For fire-related appeals, see FFPC.

104.37 Appeal by Others. Any person, in whose considered opinion, an action by the Building Official Fire Marshal, Or Fire Code Official approving or disapproving construction under this Code does not satisfy the standards of the Code for reasons of safety, quality, or strength, may appeal to BORA by written request to the secretary of the Board. Such, and such written request shall be transmitted to BORA or BORA Fire Code Committee. For fire-related appeals, see FFPC.

Section 105 Permits

105.1 Required. Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, remove, demolish, or to change the occupancy of any building or structure or to erect, install, enlarge, alter, repair, remove, convert, or replace any impact-resistant coverings, electrical, gas, mechanical or plumbing system, the installation of which is regulated by this Code, or to cause any such work to be done; shall first make application to the Building Official or Fire Code Official as indicated in <u>the</u> FFPC or a duly authorized representative and obtain the required permits.

105.1.1 Annual Facility Permit. The Building Official is authorized to issue an annual facility permit for any occupancy to facilitate routine maintenance or emergency service, repair, refurbishing, minor renovations of service systems, or manufacturing equipment installations/relocations. The Building Official shall be notified of major changes and shall retain the right to <u>inspect</u> make inspections at the site as deemed necessary. An annual facility permit shall be assessed with an annual fee and shall be valid for one (1) year from the date of issuance. A separate permit shall be obtained for each facility and for each construction trade, as applicable. The permit application shall contain a general description of the parameters of work intended to be performed during the year.

105.1.2 Annual Facility Permit Records. The holders of an annual premises permit shall maintain a detailed record listing all work performed under such annual facility permit on forms provided by the Building Official and shall make that record available to the Building Official or their authorized employees upon demand in order that the work may be inspected as deemed necessary. The holder of the annual facility permit shall be responsible for <u>insuring ensuring</u> that all work performed under such permit conforms to this Code, and if <u>the</u> inspection reveals that such work does not so-conform, the work will be corrected or removed. The annual premises permit shall be subject to cancellation for violation of the provisions of applicable regulations.

105.1.3 Food Permit. In accordance with <u>Florida Statute</u>, Section 500.12 Florida Statutes, a food permit from the Department of Agriculture and Consumer Services is required of any person who operates a food establishment or retail store.

105.1.4 Public swimming pool. The local enforcing agency may not issue a building permit to construct, develop, or modify a public swimming pool without proof of application, whether complete or incomplete, for an operating permit pursuant to <u>Florida Statute</u>, Section 514.031, Florida Statutes. A Certificate Of Completion or Occupancy may not be issued until such an operating permit is issued. The local enforcing agency shall <u>review conduct its review of</u> the building permit application upon filing and in accordance with <u>Florida Statute</u>, Chapter 553, Florida Statutes. The local enforcing agency may confer with the Department of Health, if necessary, but may not delay the building permit application review while awaiting comment from the Department of Health.

105.2 Work exempt from permit. Exemptions from permit requirements of this Code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this Code. Permits shall not be required for the following:

- A. No permit shall be required in this or any of the following sections for general maintenance or repairs which do not change the occupancy and the value of which does not exceed fifteen hundred dollars (\$1,500.00) in labor and material as determined by the Building Official.
- B. No permit is required for the installation of a concrete slab on grade in the right-of-way that is less than two hundred fifty (250) square feet in total, installed entirely within a public right-of-way and solely for the purpose of accessibility to public transportation shall not be considered a structure as described in Section 105.1.

C. No permit shall be required for stormwater gutter systems installed on buildings regulated by the FBC Residential <u>with</u> that have an eave height of thirty (30) feet or less unless such gutters are installed behind any part of the eave drip metal.

D. Electrical.

- 1. No permit shall be required for installations performed by companies whose work is regulated by <u>Florida Statute</u>, Chapter 364, Florida Statutes, for unregulated inside telephone wiring on new construction for commercial occupancies.
- 2. No permit shall be required for installations performed by companies whose work is regulated by <u>Florida Statute</u>, Chapter 364, Florida Statutes, in single-family occupancies, whether detached or townhouse.
- 3. Permits shall not be required for the installation, replacement, removal, or metering of any load management control device.

E. Gas.

- 1. Portable heating appliance not connected to a building air distribution system.
- 2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

F. Mechanical.

- 1. Portable heating appliance not connected to a building air distribution system.
- 2. Portable ventilation equipment not connected to a building air distribution system.
- 3. Portable cooling unit not connected to a building air distribution system.
- 4. Steam, hot, or chilled water piping within any heating or cooling equipment regulated by this Code.
- 5. Replacement of any part which that does not alter its approval or make it unsafe, including replacement of thermostats.
- 6. Portable evaporative cooler.
- 7. Self-contained refrigeration system containing ten (10) pounds (4.54 kg) or less of refrigerant and actuated by motors of one (1) horsepower (746 W) or less.
- 8. The installation, replacement, removal, or metering of any load management control device.
- 9. Portable air compressors, dust collectors, and their <u>corresponding correspondent</u> distribution systems.
- 10. Pool heating equipment. Plumbing and electrical permits are required.

G. Plumbing.

- 1. The stopping of leaks in drain, water, soil, waste, or vent pipes. provided, however, that If any concealed trap, drainpipe, water, soil, waste, or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work. <u>A, and a</u> permit shall be obtained, and inspection made as provided in this code.
- 2. The clearing of stoppages or the repairing of leaks in pipes, valves, faucets, or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes, or fixtures.

3. The cleaning of septic tanks or temporary placement of chemical toilets on construction sites where such work is located within the property lines.

H. Roofing.

 No permit will be required for maintenance or repair of any roof covering, as provided in Chapter 15, for work not exceeding fifteen hundred dollars (\$1,500.00) as determined by the Building Official.

105.2.1 Emergency repairs. Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the Building Official.

105.2.2 Minor repairs. Ordinary minor repairs may be made with the approval of the Building Official without a permit, provided the repairs do not include the cutting away of any wall, partition, or portion. Thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements; additionally, ordinary minor repairs shall not include an addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, electric wiring systems or mechanical equipment or other work affecting public health or general safety, and such repairs shall not violate any of the provisions of the technical codes.

105.2.3 Public Service Agencies/Other Approvals. An enforcing authority may not issue a building permit for any building construction, erection, alteration, modification, repair, or addition unless the permit either includes or aon its face or there is attached to the permit the following statement: "NOTICE: In addition to the requirements of this permit, there may be additional restrictions applicable to this property that may be found in the public records of this County, and there may be additional permits required from other governmental entities such as water management districts, state agencies or federal agencies." See Florida Statute, 553.79. In addition, the Building Official shall require that the laws, rules, and regulations of any other regulatory AHJ, and where such laws, rules, and regulations are applicable and are known to the Building Official, shall be satisfied before a permit shall be issued. The Building Official shall require such evidence, as in their opinion is reasonable, to show such other regulations as they are not specifically authorized to enforce. Following are some, but not necessarily all, other agencies having jurisdiction:

105.2.3.1 The Engineering Department, Fire Department, or Police Department for the moving of buildings, structures, and heavy equipment over or the temporary blocking of streets or other public spaces, or the temporary construction or storage of material, or construction operations on streets or other public spaces; and for land clearing adjacent to existing sidewalks; as well as for the discharge of rainwater or other water runoff on streets or other public spaces into the public sewers.

105.2.3.2 The Fire Department for the burning of construction or demolition waste or the use or storage of explosives.

105.2.3.3 the city or county tax assessor and collector for the moving or demolition of any building or structure.

105.2.3.4 Broward County Environmental Protection and Growth Management Department or Florida Department of Environmental Regulation for (but not limited to):

- A. The adequacy of waste treatment plants receiving waste from industrial, commercial, public, or dwelling units.
- B. Waste treatment and disposal systems.
- C. Waste disposal wells.

- D. Wastewater collection systems.
- E. Air pollution.
- F. Underground and above-ground liquid fuel storage.

105.2.3.5 Broward County Health Department, Florida Department of Health for (but not limited to):

- A. Onsite sewage treatment and disposal systems.
- B. Places where food or drink is prepared or served to the public but not regulated by the Department of Business and Professional Regulation or by the Department of Agriculture and Consumer Services.
- C. Public water supply and supply wells.
- D. Public swimming pools.
- E. Chemical toilets as set forth in Section 311.1 of the Florida Plumbing Code.
- F. Mobile home parks as set forth in <u>Florida Statute</u>, Sections 513 and 723, Florida Statutes.

105.2.3.6 The State Hotel Commission for the construction, alteration, or addition <u>of</u> to multiple residential rental units or places where food and drink is prepared or served to the public.

105.2.3.7 The U.S. Army Corps of Engineers, for construction of bulkheads or docks adjacent to or extending into navigable waters.

105.2.3.8 Federal regulations limiting construction during periods of national emergency.

105.2.3.9 The Public Works Department for bulkheads, docks, similar construction, or fill along waterfront property.

105.2.3.10 The Rules and Regulations of the State Fire Marshal.

105.2.3.11 The State of Florida Bureau of Elevator Inspection and the Broward County Permitting, Licensing and Consumer Protection Division, Elevator Section.

105.2.3.12 The Department of Agriculture and Consumer Services (grocery stores and convenience stores) or Department of Business and Professional Regulation (public restaurants).

105.2.3.13 In addition to the plumbing permit, permits shall be required by other regulating <u>AHJ</u> authorities having jurisdiction. Following are some, but not necessarily all, other required permits:

- A. Fire Department and Police Department before obstructing or excavating in any public thoroughfare.
- B. Engineering Department before cutting any street paving, sidewalk curb, or sewage system or part thereof or appurtenance thereof; or otherwise cutting, tapping, or piercing any public sewer or appurtenance thereof.
- C. Building Official before the addition of any fixtures or the removal or alteration of any structural or load-bearing members.

105.3 Application for Permit Required. Any applicant desiring a permit to be issued by the Building Official, Fire Marshal, or Fire Code Official, as required, shall first file an application therefore in writing or electronically on a form furnished by the Building Department or Fire Department. for that purpose.

105.3.0.1 Qualification of Applicant. Application for <u>the permit will be accepted from the</u> owner, qualified persons or firms, or authorized agents.

105.3.0.1.1 Qualification of persons or firms. Persons or firms shall be qualified in accordance with the rules of the Broward County Central Examining Board, Ordinance No. 78-9 and Chapter 9 of the Broward County Codes; the State of Florida, Department of Professional Regulation by authority of <u>Florida Statute</u>, Chapter 489, Parts One and Two of the Florida Statutes; or other Examining Boards as specifically approved by BORA.

105.3.0.2 Application Form. Each application for a permit shall be submitted with the required fee and filed with the Building Department on the Broward County Uniform Building Permit Application (effective April 1, 2016) furnished for that purpose. (see Appendix A of the Broward County Administrative Provisions) The application shall describe the property on which the proposed work is to be done and shall include both the legal description and more commonly known address. The application shall also show the use or occupancy of the building or structure; shall be accompanied by plans or specifications as required hereafter; shall state the value of the proposed work; as specified in Section 109, shall give such other information as reasonably may be required by the Building Official to describe the proposed work; and shall be attested by the owner, qualified person or firm or authorized agents. The permit application shall be inscribed with the application date and the edition of the Code in effect and comply with the requirements of Florida Statute, Section 713.135(5) and (6), Florida Statutes. The code in effect on the date of application shall govern the project. For a building code in effect in the permitting jurisdiction on the date of the application shall govern the permitted work for the life of the permit and any extension granted to the permit.

Effective October 1, 2017, A local enforcement agency shall post each type of building permit application on its website. Completed applications must be able to be submitted electronically to the appropriate building department. Accepted methods of electronic submission include but are not limited to, e-mail submission of applications in portable document format or submission of applications through an electronic fill-in form available on the Building Department's website or through a third-party submission management software. Payments, attachments, or drawings required as part of the permit application may be submitted in person in a non-electronic format at the discretion of the Building Official.

105.3.0.3 Attesting of Application. The permit application shall be signed in a space provided before an officer duly qualified to administer oaths by the owner, qualified person or firm, or authorized agents. The contractor may sign solely and independently from either an owner or owner's agent for the purpose of applying for a building permit.

105.3.0.4 Changes to Application. In the event of a change in any material fact given in the attested application, which served as a basis for issuing the permit, the permit holder shall immediately file an amended attested application detailing such changed conditions. In the event the change in the attested application is a change in the person responsible for the work, the owner shall immediately stop the work and notify the Building Official in writing detailing such changed conditions and any other information required by the Building Official or in lieu thereof a new attested permit application shall be filed immediately by a new qualified applicant. If such changed conditions are determined to be in compliance with this Code and other applicable regulations, an amended building permit will be issued, without additional fee, if the changed condition shall not be greater than those permitted in the original permit.

105.3.1 Action on application. The Building Official and Fire Code Official or their duly authorized representative shall examine or cause to be examined applications for permits and amendments thereto within thirty (30) working days after plans or specifications are submitted and accepted for a building permit (other than expedited permits related to fire alarms and fire sprinkler systems as allowed by Florida Statute 553.7932 and 633.102.) The Building Official or their duly authorized representative shall notify the applicant, in writing or electronically, that a permit is ready for issuance or that additional information is required. If the application or the construction documents do not conform to the requirements of pertinent laws, the Building Official or Fire Code Official shall reject such application in writing or electronically, stating the reasons, therefore citing relevant code sections. If the Building Official and after consulting with the Fire

Code Official, is satisfied that the proposed work conforms to the requirements of this Code, laws, and ordinances applicable thereto, the Building Official shall issue a permit. Therefore, as soon as practicable, to persons or firms qualified in accordance with Section 105.3.0.1.1 or FFPC.1.12. When authorized through a contractual agreement with a School Board, in acting on applications for permits, the Building Official shall give first priority to any applications for the construction of, or addition or renovation to, any school or educational facility.

105.3.1.1 Not more than sixty (60) calendar days after the date of such notification, where such additional information has not been submitted, or the permit has not been purchased, the application or the permit shall become null and void. If the 60th day falls on a Saturday, Sunday, or a national holiday, the next business day shall be used for the 60th day. The Building Official may extend such permit application to be corrected or purchased for a single period of sixty (60) days after the initial expiration date if the request is in writing, for a good reason, and is submitted prior to the initial expiration date.

105.3.1.2 Where an application or a permit has become null and void, an applicant may again apply, as set forth in Section 105.3 of this Code, and such applications shall be processed as though there had been no previous application.

105.3.1.3 If a state college or university, Florida college, or public school district elects to use a local government's code enforcement offices, fees charged by counties and municipalities for enforcement of the FBC on buildings, structures, and facilities of state <u>colleges and</u> universities, state colleges, and public school districts shall not be more than the actual labor and administrative costs incurred for plans review and inspections to ensure compliance with the Code.

105.3.1.4 Permits shall be required for the following operations:

105.3.1.4.1 The erection or construction of any building or structure, the adding to, enlarging, repairing, improving, altering, covering, or extending of any building or structure.

105.3.1.4.2 The moving of any building or structure within, into, through, or out of the area of jurisdiction or the moving of a building or structure on the same lot.

105.3.1.4.3 The demolition of any building or structure. (refer to Sections 116.1.4, 105.18.)

105.3.1.4.4 The installation, alteration, or repair of any sanitary plumbing, water supply, lawn sprinkler, or gas supply system, as provided in the FBC, Plumbing, and FBC, Fuel Gas.

105.3.1.4.5 The installation, alteration, or repair of any electrical wiring or equipment, as provided in Chapter 27, <u>FBC, Building</u>, Electrical Systems, except as allowed in Section 105.17 of this Code. Any alteration or extension of an existing wiring system is not considered to be maintenance or repair.

105.3.1.4.6 The installation, alteration, or major repair of any boiler, pressure vessel, furnace, steamactuated machinery, or heat-producing apparatus, including the piping and appurtenances thereto as provided in <u>FBC, Mechanical and FBC, Fuel Gas.</u> this Code.

105.3.1.4.7 The erection, remodeling, relocating, repair, altering, or removal of any sign, as provided in Section 3107 in the <u>FBC, Building of this Code</u>.

105.3.1.4.8 The erection, alteration, or repair of any awning or similar appurtenance, as defined in Section 202 of <u>FBC</u>, <u>Building</u>. this Code.

105.3.1.4.9 The storage and use of all volatile, flammable, or combustible liquids, gases, and materials, but such permits shall not be issued without the endorsement of the Fire Chief or their designee, as provided in the FFPC.

105.3.1.4.10 The application, construction, or repair of any roof covering, as provided in Chapter 15, for work exceeding fifteen hundred dollars (\$1,500.00).

105.3.1.4.10.1 Not more than twenty-five (25) percent of the total roof area or roof section of any existing building or structure shall be repaired, replaced, or recovered in any 12-month period unless the entire roofing system or roof section conforms to requirements of this Code. <u>See FBC, Existing Building 706.1.1.</u>

105.3.1.4.11 The installation, <u>removal, reinstallation, relocation</u>, alteration, or major repair of any air conditioning, refrigeration, vacuum, pneumatic, or other mechanical system, as provided in the FBC, Mechanical. A permit shall not be required for repairs that do not change the location, size, or capacity of a compressor, coil, or duct.

105.3.1.4.12 The installation, alteration, or repair of any apparatus producing air contaminants.

105.3.1.4.13 The installation, alteration, or repair of a swimming pool, as provided in Section 454 of <u>FBC</u>, <u>Building</u> this Code and Chapter 42 of the Florida Residential Code.

105.3.1.4.14 The installation, alteration, or repair of any structure or facility on private property defined by this or any other regulation as being within the scope of work of an engineering contractor.

105.3.1.4.15 The installation of exterior windows and exterior glass doors in new buildings or additions and the installation, alteration, or repair of such windows and doors in existing buildings.

105.3.1.4.16 The installation, alteration, or repair of any curtain wall.

105.3.1.4.17 The installation, alteration, or repair of any garage door in any existing building.

105.3.1.4.18 The installation, alteration, or repair of any fence.

105.3.1.4.19 The installation, alteration, or repair of any screen enclosure.

105.3.1.4.20 Local government-expedited approval of certain permits. As required by Florida Statute 553.7922, following a state of emergency declared pursuant to Florida Statute 252.36 for a natural emergency, local governments impacted by the emergency shall approve special processing procedures to expedite permit issuance for permits that do not require technical review, including but not limited to, roof repairs, reroofing, electrical repairs, service changes, or the replacement of one window or one door.

105.3.1.5 Professional Engineer Required. No permit may be issued for any building construction, erection, alteration, modification, repair, or addition unless the applicant for such permit provides to the enforcing agency which that issues the permit any of the following documents which that apply to the construction for which the permit is to be issued and which shall be prepared by or under the direction of an engineer registered under Florida Statute, Chapter 471, Florida Statutes:

- <u>1A</u>. Plumbing documents for any new building or addition which requires a plumbing system with more than two hundred fifty (250) fixture units or which costs more than one hundred twenty-five thousand dollars (\$125,000.00).
- 2B. Fire sprinkler documents for any new building or addition, which includes a fire sprinkler system which that contains fifty (50) or more sprinkler heads. Personnel, as authorized by Florida Statute, Chapter 633 Florida Statutes, may design a new fire sprinkler system of forty-nine (49) or fewer heads; may design the alteration of an existing fire sprinkler system if the alteration consists of the relocation, addition, or deletion of forty-nine (49) heads or fewer, notwithstanding the size of the existing fire sprinkler system; or may design the alteration of an existing fire sprinkler system if the alteration consists of the relocation of 249 or fewer sprinklers, notwithstanding the size of the existing fire sprinkler system, if there is no change of occupancy of the affected areas, as defined in FBC, Building this Code and the

Florida Fire Prevention Code FFPC, and there is no change in the water demand as defined in NFPA 13, Standard for the Installation of Sprinkler Systems, and if the occupancy hazard classification as defined in NFPA 13 is reduced or remains the same as a result of the alteration.

<u>3C</u>. Heating, ventilation, and air-conditioning documents for any new building or addition which requires more than a 15-ton-per-system capacity, or which is designed to accommodate more than one hundred (100) persons or for which the system costs more than one hundred twenty-five thousand dollars (\$125,000.00). This paragraph does not include any document for the replacement or repair of an existing system in which the work does not require altering a structural part of the building or for work on a residential one-family, two-family, three-family, or four-family structure.

Note: An air-conditioning system may be designed by an installing air-conditioning contractor certified under <u>Florida Statute</u>, Chapter 489, <u>Florida Statutes</u>, to serve any building or addition which is designed to accommodate one hundred (100) persons or fewer and requires an air-conditioning system with value of one hundred twenty-five thousand dollars (\$125,000.00) or less; and when a 15-ton-per-system or less is designed for a singular space of a building, and each 15-ton system or less has an independent duct system. Systems not complying with the above require design documents that are to be sealed by an engineer.

Example 1: When a space has two (2) 10-ton systems, with each having an independent duct system, the contractor may design these two (2) systems since each system is less than fifteen (15) tons.

Example 2: Consider a small single-story office building, which consists of six (6) individual offices where each office has a single three-ton package air-conditioning heat pump. The six (6) heat pumps are connected to a single water-cooling tower. The cost of the entire heating, ventilation, and air-conditioning work is forty-seven thousand dollars (\$47,000.00), and the office building accommodates fewer than one hundred (100) persons. Because the six (6) mechanical units are connected to a common water tower, this is considered to be an 18-ton system. It, therefore, could not be designed by a mechanical or air-conditioning contractor.

Note: It was further clarified by the Commission that the limiting criteria of one hundred (100) persons and one hundred twenty-five thousand dollars (\$125,000.00) apply to the building occupancy load and the cost of the total air-conditioning system of the building.

4<u>D</u>. Any specialized mechanical, electrical, or plumbing document for any new building or addition which includes medical gas, oxygen, steam, vacuum, toxic air filtration, clean agent fire extinguishing, or fire detection and alarm system that costs more than five thousand dollars (\$5,000.00).

Exception: Simplified permitting process for fire alarm system projects.

(1)1. As used in this section, the term:

- (a)a. Contractor means a person who is qualified to engage in the business of electrical or alarm system contracting pursuant to a certificate or registration issued by the department under part II of <u>Florida Statute</u>, Chapter 489, Florida Statutes.
- (b)b. A fire alarm system project means a fire alarm system alteration of a total of 20 or fewer initiating devices and notification devices or the installation or replacement of a fire communicator connected to an existing fire alarm control panel in an existing commercial, residential, apartment, cooperative, or condominium building.

(a)2. A local enforcement agency:

- <u>a.</u> May require a contractor, as a condition of obtaining a permit for a fire alarm system project, to submit a completed application and payment.
- (b)b. A local enforcement agency m-May not require a contractor to submit plans or specifications as a condition of obtaining a permit for a fire alarm system project.
- (3)3. A local enforcement agency must issue a permit for a fire alarm system project in person or electronically.
- (4)4. A local enforcement agency must require at least one inspection of a fire alarm system project to ensure compliance with applicable codes and standards. If a fire alarm system project fails an inspection, the contractor must take corrective action as necessary to pass the inspection.
- (5)5. A contractor must keep a copy of the plans and specifications at a fire alarm system project worksite and make such plans and specifications available to the inspector at each inspection.
- 5E. Electrical documents. See Florida Statutes, Section 471.003(2)(h), Florida Statutes.

Note: Documents requiring an engineer seal by this part shall not be valid unless an engineer who possesses a valid certificate of registration has signed, dated, and stamped such document as provided in <u>Florida Statute</u>, Section 471.025 Florida Statutes.

- 6F. All public swimming pools and public bathing places as defined by and regulated under Florida Statutes, Chapter 514., Florida Statues.
- 7<u>G</u>. <u>See also section 107.3.4</u>.

105.3.1.6 Reviewing application for a building permit.

- 1. When reviewing an application for a building permit, a local government may not request additional information from the applicant more than three times unless the applicant waives such limitation in writing.
- 2. If a local government requests additional information from an applicant and the applicant submits the requested additional information to the local government within 30 days after receiving the request, the local government must, within 15 days after receiving such information:
 - A. Determine if the application is properly completed.
 - B. Approve the application.
 - C. Approve the application with conditions.
 - D. Deny the application or
 - E. Advise the applicant of information, if any, that is needed to deem the application properly completed or to determine the sufficiency of the application.
- 3. If a local government makes a second request for additional information from the applicant and the applicant submits the requested additional information to the local government within 30 days after receiving the request, the local government must, within ten (10) days after receiving such information:
 - A. Determine if the application is properly completed.
 - B. Approve the application.

- C. Approve the application with conditions.
- D. Deny the application or
- E. Advise the applicant of information, if any, that is needed to deem the application properly completed or to determine the sufficiency of the application.
- 4. Before a third request for additional information may be made, the applicant must be offered an opportunity to meet with the local government to attempt to resolve outstanding issues. If a local government makes a third request for additional information from the applicant and the applicant submits the requested additional information to the local government within 30 days after receiving the request, the local government must, within 10 days after receiving such information unless the applicant waived the local government's limitation in writing, determine that the application is complete and:
 - A. Approve the application.
 - B. Approve the application with conditions or
 - C. Deny the application.
- 5. If the applicant believes the request for additional information is not authorized by ordinance, rule, statute, or other legal authority, the local government, at the applicant's request, must process the application and either approve the application, approve the application with conditions, or deny the application.

105.3.2 Time Limitation.

105.3.2.1 Every permit issued shall become null and void if work, as defined in Section 105.3.2.6, authorized by such permit is not commenced within one hundred eighty (180) days from the date the permit is issued or if the work authorized by such permit is suspended or abandoned for a period of ninety (90) days after the time the work is commenced.

105.3.2.2 If the work covered by the permit has not commenced or has commenced and has been suspended or abandoned, the Building Official may, for good cause, extend such permit for no more than two (2) periods of ninety (90) days, not to exceed one (1) year, from the date of expiration of the initial permit, if an extension is requested.

105.3.2.3 If the work covered by the permit has commenced, is in progress, has not been completed, and is being carried on progressively in a substantial manner in accordance with Section 105.3.2.6, the permit shall be in effect until completion of the job.

105.3.2.4 If work has commenced and the permit is revoked, becomes null and void, or expires because of lack of progress or abandonment, a new permit covering the proposed construction shall be obtained before proceeding with the work.

105.3.2.5 If a new building permit is not obtained within one hundred eighty (180) days from the date the initial permit became null and void, the Building Official is authorized to require that any work which that has been commenced or completed be removed from the building site; or alternately, they may issue a new permit, on application, providing the work in place and the required work to complete the structure meets all applicable regulations in effect at the time the initial permit became null and void and any regulations which may have become effective between the date of expiration and the date of issuance of a new permit.

Exception: On written request from <u>the</u> owner or the contractor, the Building Official may reinstate the permit one (1) time. The job shall be completed under the jurisdiction of the code that the original permit

was approved under. The reinstated permit shall be subject to the life safety requirements as determined by the fire code official.

105.3.2.5.1 A local government that issues building permits shall send a written notice of expiration by email or United States Postal Service to the owner of the property and the contractor listed on the permit, no less than thirty (30) days before a building permit is set to expire. The written notice must identify the permit that is set to expire and the date the permit will expire.

105.3.2.6 Work shall be considered to have commenced and be in active progress when the permit has received an approved inspection within ninety (90) days of being issued or if, in the opinion of the Building Official, the permit has a full complement of workers and equipment is present at the site to diligently incorporate materials and equipment into the structure, weather permitting. This provision shall not be applicable in <u>the</u> case of <u>a</u> civil commotion or strike or when the building work is halted due directly to <u>a</u> judicial injunction, order, or similar process. The fact that the property or parties may be involved in litigation shall not be sufficient to constitute an exception to the time period set forth herein.

Exception: A primary permit shall not be deemed expired while the secondary permit is considered active.

105.3.2.7 The fee for renewal, re-issuance, and extension of a permit shall be set forth by the AHJ.

105.3.2.8 If the work covered by the permit is subordinate to the permit issued to the general (or prime) contractor, i.e., plumbing, electrical, pool, etc., the subordinate permit will be in effect for the full time of the contract permit.

105.3.3 An enforcing authority may not issue a building permit for any building construction, erection, alteration, modification, repair, or addition unless the permit either includes on its face or there is attached to the permit the following statement: "NOTICE: In addition to the requirements of this permit, there may be additional restrictions applicable to this property that may be found in the public records of this County, and there may be additional permits required from other governmental entities such as water management districts, state agencies or federal agencies."

105.3.4 A building permit for a single-family residential dwelling must be issued within thirty (30) working days of application unless unusual circumstances require a longer time for processing the application or unless the permit application fails to satisfy the FBC or the enforcing agency's laws or ordinances.

105.3.5 Identification of minimum premium policy. Except as otherwise provided in <u>Florida Statute</u>, Chapter 440, Florida Statutes, Workers' Compensation, every employer shall, as a condition to receiving a building permit, show proof that it has secured compensation for its employees as provided in <u>Florida Statute</u>, Sections 440.10 and 440.38, Florida Statutes.

105.3.6 Asbestos. The enforcing agency shall require each building permit for the demolition or renovation of an existing structure to contain an asbestos notification statement <u>that which</u> indicates the owner's or operator's responsibility to comply with the provisions of <u>Florida Statute</u>, Section 469 Florida Statutes and to notify the Department of Environmental Protection of their intentions to remove asbestos, when applicable, in accordance with state and federal law.

105.3.6.1 Asbestos removal. Moving, removal, or disposal of asbestos-containing materials on a residential building where the owner occupies the building, the building is not for sale or lease, and the work is performed according to the owner-builder limitations provided in this paragraph. To qualify for exemption under this paragraph, an owner must personally appear and sign the building permit application. The permitting agency shall provide the person with a disclosure statement in substantially the following form:

Disclosure Statement

State law requires asbestos abatement to be done by licensed contractors. You have applied for a permit under an exemption to that law. The exemption allows you, as the owner of your property, to act as your own asbestos abatement contractor even though you do not have a license. You must supervise the construction yourself. You may move, remove, or dispose of asbestos-containing materials on a residential building where you occupy the building and the building is not for sale or lease, or the building is a farm outbuilding on your property. If you sell or lease such building within one (1) year after the asbestos abatement is complete, the law will presume that you intended to sell or lease the property at the time the work was done, which is a violation of this exemption. You may not hire an unlicensed person as your contractor. Your work must be done according to all local, state, and federal laws and regulations which that apply to asbestos abatement projects. It is your responsibility to make sure that people employed by you have licenses required by state law and by county or municipal licensing ordinances.

105.3.7 Applicable Code for Manufactured Buildings. Manufacturers should be permitted to complete all buildings designed and approved prior to the effective date of a new code edition, provided a clear signed contract is in place. The contract shall provide specific data mirroring that <u>is</u> required by an application for a permit, specifically, without limitation, date of execution, building owner or dealer, and anticipated date of completion. However, the construction activity must commence within six (6) months of the contract's execution. The contract is subject to verification by the Department of Business and Professional Regulation.

105.3.8 A local government may not require a contract between a builder and an owner for the issuance of a building permit or as a requirement for the submission of a building permit application.

105.4 Conditions of Permit. A permit issued shall be construed to be a license to proceed with the work and not as authority to violate, cancel, alter, or set aside any of the provisions of the technical codes, nor shall issuance of a permit prevent the Building Official, or Fire Marshal/Fire Code Official, or their duly authorized representative from thereafter requiring a correction of errors in plans, construction or violations of this Code.

105.4.1 Compliance.

105.4.1.1 At any time when approved plans or specifications are found to be in violation of this Code, the Building Official or their duly authorized representative or Fire Marshal/Fire Code Official, or their duly authorized representative shall notify the designer of the applicable code section that are in violation. The and the designer shall correct the drawings or otherwise show compliance with this Code and the FFPC. satisfy. the Building Official or their duly authorized representative or fire marshal/fire code official or their duly authorized representative or fire marshal/fire code official or their duly authorized representative or fire marshal/fire code official or their duly authorized representative that the design or working drawings are in compliance with this Code and FFPC.

105.4.1.2 Compliance with the code is the responsibility of the property owner and the permit holder. The safety of persons and materials during actual construction operations, as set forth in FBC, Building, Chapter 33, is the responsibility of the permit holder.

105.4.1.3 The Building Official or their duly authorized representative or Fire Marshal/Fire Code Official or their duly authorized representative (according to this Code and <u>the</u> FFPC) shall issue a notice of violation(s) of this Code or corrections ordered. Such notice shall be served on the permit holder or their job representative by mail, hand delivery, electronically, or may be posted at the site of the work. Refusal, failure, or neglect to comply with such notice or order within ten (10) days, except where an appeal has been filed with BORA, shall be considered a violation of this Code and shall be subject to the penalties as set in Section 114 of this Code. In the event of failure to comply with this section, no further permits shall be issued to such person, firm, or corporation.

105.5 Additional options for closing a permit.

- A. Pursuant to Section 553.79(15), Florida Statute, a property owner, regardless of whether the property owner is the one listed on the application for the building permit, may close a building permit by complying with the following requirements:
 - a. The property owner may retain the original contractor listed on the permit or hire a different contractor appropriately licensed in this state to perform the work necessary to satisfy the

conditions of the permit and to obtain any necessary inspections in order to close the permit. If a contractor other than the original contractor listed on the permit is hired by the property owner to close the permit, such contractor is not liable for any defects in the work performed by the original contractor and is only liable for the work that they perform.

- b. The property owner may assume the role of an owner-builder in accordance with Florida Statute, Sections 489.103(7) and 489.503(6).
- c. For purposes of this section, the term "close" means that the requirements of the permit have been satisfied.
- B. If a building permit is expired and its requirements have been substantially completed, as determined by the local enforcement agency, the permit may be closed without having to obtain a new building permit, and the work required to close the permit may be done pursuant to the building code in effect at the time the local enforcement agency received the application for the permit unless the contractor has sought and received approval from the local enforcement agency for an alternative material, design, or method of construction.
- C. A local enforcement agency may close a building permit six (6) years after the issuance of the permit, even in the absence of a final inspection, if the local enforcement agency determines that no apparent safety hazards exist.

105.6 Suspension or Revocation of Permit.

105.6.1 The Building Official may revoke a permit or approval issued under the provisions of this Code in the case of any false statement or misrepresentation of fact in the application or on the plans or specifications on which the permit or approval was based.

105.6.2 Whenever the work for which a permit has been issued is not being performed in conformity with plans, specifications, or descriptions, or approved plans or <u>if the</u> specifications are not being kept at the site, it shall be the duty of the Building Official to notify the contractor or owner or their agent, in writing, that the permit is suspended. Written notice shall be mailed or given to the permit holder or their agent, and it shall be unlawful for any person or persons to perform any work in or about the building or structure except such work as may be required <u>to correct for the correction of</u> the expressed violations. And if, in the judgment of the Building Official, there is imminent danger that requires immediate action, the permit may be revoked or suspended verbally, and written notice served later.

105.6.3 When a permit has been suspended, it shall not be reinstated until all existing violations have been corrected. Written notice of reinstatement shall be given <u>to</u> the permit holder if requested.

105.6.4 Upon request by the owner or permit holder and upon investigation by the Building Official to determine that the work has been abandoned or that the permit holder is unable or unwilling to complete the contract, a change of contractor may be issued without the initial permit being revoked or suspended.

105.6.4.1 The foregoing will be permitted only when the following stated persons have filed with the Building Official a letter stating the reason for a change of contractor being required and holding the Building Official harmless from legal involvement. All interested parties shall be notified before action is taken.

- 1. Where the contractor being changed is the prime contractor, the owner shall file such <u>a</u> holdharmless letter.
- 2. Where a sub-contractor or specialty contractor is the permit holder, the owner and prime contractor shall each both file such <u>a</u> hold-harmless letters.

105.6.5.1 Pursuant to Section 553.79(18), Florida Statute, a local enforcement agency may not deny issuance of a building permit to; issue a notice of violation to; or fine, penalize, sanction, or assess fees

against an arms-length purchaser of a property for value solely because a building permit applied for by a previous owner of the property was not closed. The local enforcement agency shall maintain all rights and remedies against the property owner and contractor listed on the permit.

105.6.5.2 Pursuant to Section 553.79(18), Florida Statute, the local enforcement agency may not deny issuance of a building permit to a contractor solely because the contractor is listed on other building permits that were not closed.

105.7 Placement of Permit Card. The building permit card shall be maintained in a conspicuous place on the front of the premises affected thereby during the hours of work in progress and available on demand for examination by the Building Official. The permit card which shall bear the description of the property, the nature of the work being done, the name of the owner and contractor, and other pertinent information.

105.8 Notice of Commencement. In accordance with <u>Florida Statute</u>, Section 713.135, <u>Florida Statutes</u>, when any person applies for a building permit, the authority issuing such permit shall print on the face of each permit card in no less than 14-point, capitalized, boldfaced type: "WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

105.9 Reserved. See Section 105.3.6 Asbestos.

105.10 Certificate of Protective Treatment for <u>the</u><u>prevention of termites</u>. A weather-resistant job site posting board shall be provided to receive duplicate Treatment Certificates as each required protective treatment is completed, providing a copy for the person the permit is issued to and another copy for the building permit files. The Treatment Certificate shall provide the product used, identity of the applicator, time and date of the treatment, site location, area treated, chemical used, percent concentration, and number of gallons used to establish a verifiable record of protective treatment. If the soil chemical barrier method for termite prevention is used, the final exterior treatment shall be completed prior to <u>the</u> final building approval.

105.11 Notice of termite protection. A permanent sign, which identifies the termite treatment provider and <u>the</u> need for re-inspection and treatment contract renewal, shall be provided. The sign shall be posted near the water heater or electric panel.

105.12 Work starting before permit issuance. Upon prior written approval of the Building Official, the scope of work delineated in the building permit application and plans may be started prior to the final approval and issuance of the permit, provided that any work completed (including exploratory uncovering of concealed structural elements of existing buildings for design information) is entirely at <u>the</u> risk of the permit applicant and the work does not proceed past the first required inspection.

105.13 Phased permit approval. After <u>the</u> submittal of the appropriate construction documents, the Building Official is authorized to issue a permit for the construction of foundations or any other part of a building or structure before the construction documents for the whole building or structure have been submitted and upon payment of the required fee. The holder of such permit for the foundation or other parts of a building or structure shall proceed at the holder's own risk with the building operation and without assurance that a permit for the entire structure will be granted. Corrections may be required to meet the requirements of the technical codes.

105.14 Permit issued on the basis of an affidavit. Reserved. Whenever a permit is issued in reliance upon an affidavit or whenever the work to be covered by a permit involves installation under conditions that, in the opinion of the Building Official, are hazardous or complex, the Building Official shall require that the architect or engineer who signed the affidavit or prepared the drawings or computations shall supervise such work. In addition, they shall be responsible for conformity to the permit, provide copies of inspection reports as inspections are performed, and upon completion, make and file with the Building Official written affidavit that the work has been done in conformity with to the reviewed plans and with the structural provisions of the technical codes. In the

event such architect or engineer is not available, the owner shall employ in his stead a competent person or agency whose qualifications are reviewed by the Building Official. The Building Official shall ensure that any person conducting plans review is qualified as a plans examiner under Florida Statute, Part XII of Chapter 468 and that any person conducting inspections is qualified as a building inspector under Florida Statute, Part XII of Chapter 468.

105.14.1 Affidavits in flood hazard areas. Permit issued on the basis of an affidavit shall not extend to the flood load and flood resistance requirements of the *Florida Building Code*, and the Building Official shall review and inspect those requirements.

105.15 Opening protection. When any activity requiring a building permit, not including roof covering replacement or repair work associated with the prevention of degradation of the residence, that is applied for on or after July 1, 2008, and for which the estimated cost is fifty thousand dollars (\$50,000.00) or more for a building that is located in the wind borne debris region as defined in the FBC, and that has an insured value of seven hundred fifty thousand dollars (\$750,000.00) or more, or, if the building is uninsured or for which documentation of insured value is not present, has a just valuation for the structure for purposes of ad valorem taxation of seven hundred fifty thousand dollars (\$750,000.00) or more; opening protection as required within the FBC, Building or FBC, Residential for new construction must be provided.

Exception: Single-family residential structures permitted subject to the FBC are not required to comply with this section.

105.16 Inspection of existing residential building not impacted by construction.

- (a) A local enforcing agency, and any local building code administrator, inspector, or other official or entity, may not require as a condition of issuance of a one- or two-family residential building permit the inspection of any portion of a building, structure, or real property that is not directly impacted by the construction, erection, alteration, modification, repair, or demolition of the building, structure, or real property for which the permit is sought.
- (b) This subsection does not apply to a building permit sought for:
 - 1. A substantial improvement as defined in <u>Florida Statute</u>, Section 161.54, Florida Statutes, or as defined in FBC.
 - 2. A change of occupancy as defined in FBC.
 - 3. A conversion from residential to nonresidential or mixed use pursuant to <u>Florida Statute</u>, Section 553.79(20)(a), Florida Statutes, or as defined in FBC.
 - 4. A historic building as defined in FBC.
- (c) This subsection does not prohibit a local enforcing agency, or any local building code administrator, inspector, or other official or entity, from:
 - 1. Citing any violation inadvertently observed in plain view during the ordinary course of an inspection conducted in accordance with the prohibition in paragraph (a).
 - 2. Inspecting a physically nonadjacent portion of a building, structure, or real property that is directly impacted by the construction, erection, alteration, modification, repair, or demolition of the building, structure, or real property for which the permit is sought in accordance with the prohibition in paragraph (a).
 - 3. Inspecting any portion of a building, structure, or real property for which the owner or other person having control of the building, structure, or real property has voluntarily consented to the inspection of that portion of the building, structure, or real property in accordance with the prohibition in paragraph (a).

4. Inspecting any portion of a building, structure, or real property pursuant to an inspection warrant issued in accordance with <u>Florida Statute</u>, Sections 933.20-933.30, <u>Florida Statutes</u>.

105.17 Streamlined low-voltage alarm system installation permitting.

- (1) As used in this section, the term:
 - (a) Contractor means a person who is qualified to engage in the business of electrical or alarm system contracting pursuant to a certificate or registration issued by the department under Part II of Chapter 489.
 - (b) Low-voltage alarm system project means a project related to the installation, maintenance, inspection, replacement, or service of a new or existing alarm system, as defined in <u>Florida Statute</u>, <u>Section</u> 489.505, Florida Statutes, including video cameras and closed-circuit television systems used to signal or detect a burglary, fire, robbery, or medical emergency that is hardwired and operating at low voltage, as defined in the National Electrical Code Standard 70, Current Edition, or a new or existing low voltage electric fence. The term also includes ancillary components or equipment attached to a low-voltage alarm system or low-voltage electric fence, including, but not limited to, home-automation equipment, thermostats, closed-circuit television systems, access controls, battery recharging devices, and video cameras.
 - (c) Low-voltage electric fence means an alarm system, as defined in Section 489.505, that consists of a fence structure and an energizer powered by a commercial storage battery not exceeding twelve
 (12) volts, which produces an electric charge upon contact with the fence structure.
 - (d) Wireless alarm system means a burglar alarm system or smoke detector that is not hardwired.
- (2) Notwithstanding any provision of law, this section applies to low-voltage alarm system projects for which a permit is required by a local enforcement agency. However, a permit is not required to install, maintain, inspect, replace, or service a wireless alarm system, including any ancillary components or equipment attached to the system.
- (3) A low-voltage electric fence must meet all of the following requirements to be permitted as a lowvoltage alarm system project, and no further permit shall be required for the low-voltage alarm system project other than as provided in this section:
 - (a) The electric charge produced by the fence upon contact must not exceed energizer characteristics set forth in paragraph 22.108 and depicted in Figure 102 of International Electrotechnical Commission Standard No. 60335-2-76, Current Edition.
 - (b) A nonelectric fence or wall must completely enclose the low-voltage electric fence. The low-voltage electric fence may be up to two (2) feet higher than the perimeter nonelectric fence or wall.
 - (c) The low-voltage electric fence must be identified using warning signs attached to the fence at intervals of not more than sixty (60) feet.
 - (d) The low-voltage electric fence shall not be installed in an area zoned exclusively for single-family or multi-family residential use.
 - (e) The low-voltage electric fence shall not enclose the portions of a property which that are used for residential purposes.
- (4) This section does not apply to the installation or replacement of a fire alarm if a plan review is required.
- (5) A local enforcement agency shall make uniform basic permit labels available for purchase by a contractor to be used for the installation or replacement of a new or existing alarm system at a cost as indicated in <u>Florida Statute</u>, Section 553.793, Florida Statutes. The local enforcement agency may not

require the payment of any additional fees, charges, or expenses associated with the installation or replacement of a new or existing alarm.

- (a) A local enforcement agency may not require a contractor, as a condition of purchasing a label, to submit information other than identification information of the licensee and proof of registration or certification as a contractor.
- (b) A label is valid for one (1) year after the date of purchase and may only be used within the jurisdiction of the local enforcement agency that issued the label. A contractor may purchase labels in bulk for one (1) or more unspecified current or future projects.
- (6) A contractor shall post an unused uniform basic permit label in a conspicuous place on the premises of the low-voltage alarm system project site before commencing work on the project.
- (7) A contractor is not required to notify the local enforcement agency before commencing work on a low-voltage alarm system project. However, a contractor must submit a Uniform Notice of a Low-Voltage Alarm System Project as provided under subsection (7) to the local enforcement agency within fourteen (14) days after completing the project. A local enforcement agency may take disciplinary action against a contractor who fails to timely submit a Uniform Notice of a Low-Voltage Alarm System Project.
- (8) The Uniform Notice of a Low-Voltage Alarm System Project may be submitted electronically or by facsimile if all submissions are signed by the owner, tenant, contractor, or authorized representative of such persons. The Uniform Notice of a Low-Voltage Alarm System Project shall be in the format prescribed by the local enforcement agency and must comply with the requirements of <u>Florida Statutes</u>, Section 553.793(7), Florida Statutes.
- (9) A low-voltage alarm system project may be inspected by the local enforcement agency to ensure compliance with applicable codes and standards. If a low-voltage alarm system project fails an inspection, the contractor must take corrective action as necessary to pass <u>the</u> inspection.
- (10) A municipality, county, district, or other entity of local government entity may not adopt or maintain in effect an ordinance or rule regarding a low-voltage alarm system project that is inconsistent with this section.
- (11) A uniform basic permit label shall not be required for the subsequent maintenance, inspection, or service of an alarm system that was permitted in accordance with this section.
- The provisions of this act are not intended to impose new or additional licensure requirements on persons licensed in accordance with the applicable provisions of <u>Florida Statutes</u>, Chapter 489, Florida Statues.

105.18 Demolition. Application for building permits for the work of demolition of buildings or structures, if such building or structure is over twelve (12) feet in height above grade or any wall of which is over forty (40) feet in horizontal length, shall be accepted from only qualified persons or firms. Qualifications of persons or firms shall be in accordance with separate ordinances providing for the qualification and certification of construction tradesmen. See <u>Florida Statutes</u> F.S. 553.79(25) for the demolition of a single-family residential structure located on <u>in</u> any flood hazard area.

105.18.1 A permit for the demolition of a building or structure for which an application is made voluntarily by the owner shall expire sixty (60) days from the date of issuance and shall specifically require the completion of the work for which the permit is issued on or before the expiration date.

Section 106 Floor and Roof Design Loads

106.1 Live loads posted. In commercial or industrial buildings, for each floor or portion <u>thereof</u> designed for live loads exceeding fifty (50) psf (2.40 kN/m²), such design live loads shall be conspicuously posted by the owner in

that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.

106.2 Issuance of certificates of occupancy. A Certificate of Occupancy required by Section 111 shall not be issued until the floor load signs required by Section 106.1 have been installed.

106.3 Restrictions on loading. It shall be unlawful to place, or cause a permit to be placed, on any floor or roof of a building, structure, or portion thereof, a load greater than is permitted by this Code.

106.3.1 Storage and Factory-Industrial Occupancies. It shall be the responsibility of the owner, agent, proprietor, or occupant of Group S and Group F occupancies, or any occupancy where excessive floor loading is likely to occur, to employ a competent architect or engineer in computing the safe load capacity. All such computations shall be accompanied by an affidavit from the architect or engineer stating the safe allowable floor load on each floor in pounds per square foot uniformly distributed. The computations and affidavit shall be filed as a permanent record of the building department.

Section 107 Submittal Documents

107.1 General.

107.1.1 Submittal documents. Submittal documents consisting of construction documents, statement of special inspections, geotechnical reports, structural observation programs, and other data shall be submitted in two (2) or more sets of plans or specifications as described in Section 107.3 <u>or in a digital format when approved by the Building Official</u> with each application for a permit. The construction documents shall be prepared by a A registered design professional shall prepare construction documents where required by <u>Florida Statute</u>, Chapter 471, Florida Statutes, or Chapter 481, Florida Statutes. Where special conditions exist, the Building Official is authorized to require additional construction documents to be prepared by a registered design professional.

Mr. Lavrich proposes that the highlighted section below be deleted:

107.1.1 Submittal documents. Submittal documents consisting of construction documents, <u>plans</u>, statement of special inspections, geotechnical reports, structural observation programs, and other data shall be submitted in two (2) or more sets of plans or specifications as described in Section 107.3 or in a digital format when approved by the Building Official with each application for a permit. A registered design professional shall prepare construction documents where required by Florida Statute, Chapter 471, or Chapter 481. Where special conditions exist, the Building Official is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The Building Official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that <u>a</u> review of construction documents is not necessary to obtain compliance with this Code.

107.1.2 Where required by the Building Official or <u>Fire Marshal</u>, Or <u>Fire Code Official</u>, a third copy of the plan showing parking, landscaping, and drainage shall be provided.

107.2 Construction documents. Construction documents shall be in accordance with Sections 107.2.1 through 107.2.5.

107.2.1 Information on construction documents. Construction documents shall be dimensioned and drawn upon suitable material. Electronic media documents are permitted to can be submitted when approved by the Building Official. Construction documents shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed and show in detail that it will conform to the provisions of this Code and the FFPC, relevant laws,

ordinances, rules, and regulations, as determined by the Building Official or Fire Marshal/Fire Code Official (see also Section 107.3.5.1.)

107.2.1.1 At any time during the course of construction, the Building Official or Fire Marshal, <u>Or</u> Fire Code Official may require the submittal of a first-floor elevation survey as built.

107.2.2 Fire protection system shop drawings. Shop drawings for the fire protection system(s) shall be submitted to indicate conformance with this Code, <u>the</u> FFPC, and the construction documents and shall be approved prior to the start of system installation. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9 of this Code and <u>the</u> FFPC.

107.2.3 Means of egress. The construction documents shall <u>comply with Chapter 10 of the FBC, Building, showing</u> in sufficient detail the location, construction, size, and character of all portions of the means of egress. including the path of the exits discharge to the public way in compliance with the provisions of this Code. In other than occupancies <u>other than</u> in Groups R-2, R-3, and I-1, the construction documents shall designate the number of occupants to be accommodated on every floor and in all rooms and spaces.

107.2.4 Exterior wall envelope. Construction documents for all buildings shall describe the exterior wall envelope <u>sufficiently</u> in sufficient detail to determine compliance with this Code. The construction documents shall provide details of the exterior wall envelope as required, including flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves, or parapets, means of drainage, water-resistive membrane, and details around openings.

The construction documents shall include <u>the</u> manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the construction documents maintain the weather resistance of the exterior wall envelope. The supporting documentation shall fully describe the exterior wall system that was tested, where applicable, <u>and as well as</u> the test procedure used.

107.2.4.1 Exterior balcony and elevated walking surfaces. Where <u>the</u> balcony or other elevated walking surfaces are exposed to water from direct or blowing rain or irrigation, and the structural framing is protected by <u>an impervious moisture barrier protects the</u> structural framing, the construction documents shall include details for all elements of the impervious moisture barrier system. The construction documents shall include <u>the</u> manufacturer's installation instructions. (CAC7834)

107.2.5 Site plan. The construction documents submitted with the application for a permit shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades, and the proposed finished grades, and, as applicable, flood hazard areas, floodways, and design flood elevations; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show <u>the</u> construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The Building Official is authorized to waive or modify the requirement for a site plan when the application for a permit is for alteration or repair or when otherwise warranted.

107.2.5.1 Design flood elevations. Where design flood elevations are not specified, they shall be established in accordance with FBC Ch. 16. The elevation above Mean Sea Level (MSL) of the top of all first floors shall appear on all construction plans, and the Building Official shall require that such elevations be transferred to the accompanying application for a permit.

107.3 Examination of documents. The Building Official or Fire Marshal/Fire Code Official shall examine or cause to be examined each application for a permit and the accompanying documents, consisting of drawings, specifications, calculations (when required), and additional data, and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of the technical codes and all other pertinent laws or ordinances. All plan reviews shall be performed by <u>the</u> plans examiners certified per Section 104 of this Code.

Exceptions 1: Building plans and specifications approved pursuant to <u>Florida Statute</u>, Section 553 Part I, Florida Statutes, and state-approved manufactured buildings are exempt from local codes enforcing agency plan reviews except for provisions of the code relating to erection, assembly, or construction at the site. Erection, assembly, and construction at the site are subject to local permitting and inspections. Photocopies of plans approved according to FAC 61-41.009 shall be sufficient for local permit application documents of record for the modular building portion of the permitted project.

Exception 2. Reserved.

107.3.0.1 Plans and specifications for which only minor correction is necessary may be corrected by notation on the prints with the <u>designer</u> approval of the designer.

107.3.0.2 Plans and specifications for which major correction is necessary shall be revised by the designer, and new corrected plans submitted.

107.3.1 Approval of construction documents. When the Building Official issues a permit, the construction documents <u>shall be approved electronically</u>, in writing, or stamped as required <u>shall be approved</u>, in writing, or by stamp stamped or electronically, as "Reviewed for Code Compliance." The Building Official shall retain one (1) set of the approved (construction documents) plans and specifications., and t The other set shall be returned to the (applicant) permit holder, who shall maintain and keep this set at the site of work and available for inspections by the Building Official or their duly authorized representative or Fire Marshal/Fire Code Official, or their duly authorized representative.

107.3.2 Previous approval. Reserved.

107.3.3 Phased approval. Reserved. See Section 105.13.

107.3.4 <u>Requirements for Professional Design. Design professional in responsible charge.</u>

Mr. Lavrich is requesting this section be replaced.

107.3.4.0.1 General Requirements for Professional Design. For <u>new</u> buildings and structures (except single-family residences), alterations, repairs, improvements, replacements, or additions costing fifteen thousand dollars (\$15,000.00) or more, as specified herein, the plans or specifications shall be prepared and approved by, and each sheet shall bear the <u>impress</u>_seal <u>and signature</u> of an architect or engineer. For any work involving structural design, the Building Official may require that plans and specifications be prepared by and bear the <u>impress</u>_seal <u>and signature</u> of an engineer, regardless of the cost of such work.

107.3.4.0.1 General Requirements for Professional Design. For <u>new</u> buildings and structures (except singlefamily residences), alterations, repairs, improvements, replacements, or additions costing fifteen thousand dollars (\$15,000.00) or more, as specified herein, the plans or specifications shall be prepared and approved by., and e<u>E</u>ach sheet shall bear the impress<u>ed</u> seal of an architect or engineer. For any work involving structural design, the Building Official may require that plans and specifications be prepared by and bear the impress<u>ed</u> seal of an engineer, regardless of the cost of such work.

Replace with this: Construction documents, plans, and specifications for all buildings and structures shall be prepared by a Florida Registered Architect and Florida Licensed Professional Engineer.

Exception: Roofing as set forth in FBC, Chapter 15.

107.3.4.0.2 Plans and specifications for proposed construction, where such plans and specifications are required by this Code to be prepared by and bear the <u>impress</u> seal <u>and signature</u> of an architect or engineer, shall be submitted by the architect or engineer or <u>an</u> authorized representative.

107.3.4.0.3 For alterations, repairs, improvements, replacements, or additions to a single-family residence costing thirty thousand dollars (\$30,000.00) or more, as specified herein, the plans and specifications shall be prepared and approved by <u>an architect or engineer</u>. - and eEach sheet shall bear the <u>impress</u> seal <u>and</u> <u>signature</u> of an architect or engineer. For any work involving structural design, the Building Official may

require that plans and specifications be prepared by and bear the *impress* seal <u>and signature</u> of an engineer, regardless of the cost of such work.

107.3.4.0.4 Plans and specifications for work that is preponderantly of architectural nature shall be prepared by and bear the *impress*_seal <u>and signature</u> of an architect, and such work that involves extensive computation based on structural stresses shall, in addition, bear the *impress*_seal <u>and signature</u> of an engineer.

107.3.4.0.5 Plans and specifications for work that is preponderantly of a mechanical or electrical nature, at the discretion of the Building Official, shall be prepared by and bear the <u>impress</u> seal <u>and signature</u> of an engineer.

107.3.4.0.6 Compliance with the specific minimum requirements of this Code shall not be in itself deemed sufficient to assure that a building or structure complies with all of the requirements of this Code. It is the responsibility of the architect or engineer of record for the building or structure to determine through rational analysis what design requirements are necessary to comply with this Code.

107.3.4.0.7 Plans and specifications for work that is preponderantly of a structural nature shall be prepared by and bear the <u>impress</u> seal <u>and signature</u> of an engineer.

107.3.4.0.8 Plans and specifications for new construction requiring an aggregate electrical service capacity of more than six hundred (600) amperes or more than two hundred forty (240) volts on residential or more than eight hundred (800) amperes or more than two hundred forty (240) volts on commercial or industrial or an electrical system having a value greater than one hundred twenty-five thousand dollars (\$125,000.00) or any electrical system(s) for an assembly area having an area greater than five thousand (5,000) square feet or a fire alarm or security alarm system(s) which cost more than five thousand dollars (\$5,000.00) shall be prepared by and signed, dated and bear the <u>impress</u> seal <u>and signature</u> of an engineer who is competent in this field of expertise. All plans and specifications prepared by an architect or an engineer, pursuant to the requirements of this Code, shall be hand-signed, dated, and sealed by the respective architect or engineer who prepared such plans and specifications.

Recommended addition by Mr. Lavrich.

107.3.4.0.9 Signatures and Seals. All plans, specifications, and other construction documents required to be prepared by an Architect or Engineer, shall be signed, dated, and sealed, either original signed wet seal, embossed seal, or digital seal, according to the requirements of Chapters 471 and 481 of the Florida Statutes.

107.3.4.1 Deferred submittals. Reserved.

107.3.4.2 Certification by contractors. Reserved.

107.3.4.3 Application for Examination of Plans.

107.3.4.3.1 Complete plans or specifications shall be submitted in duplicate and with a third copy of the plot plan showing parking, landscaping, and drainage, or such plans may be submitted in a single copy where it is evident that code interpretation is needed before <u>the</u> final working drawings can be prepared.

107.3.4.3.2 Plans or specifications for proposed construction, where such plans or specifications are not required to be prepared by and bear the <u>impress</u> seal <u>and signature</u> of an architect or engineer, shall be submitted by the designer with the application as set forth in Section 105.3.

107.3.4.3.3 Construction Inspection. The professional engineer of record or the architect of record in responsible charge of the structural design shall include in the construction documents the following:

- 1. Special inspections <u>are</u> required by Section 110.10.2.
- 2. Other structural inspections required by the Professional Engineer of Record or the Architect of Record in responsible charge of the structural design.

107.3.4.3.4 Application for permit for new construction and additions shall be accompanied by a registered land surveyor's certificate and plan in duplicate on which shall be clearly indicated the property-corner stakes, property line dimensions, existing structures and their location, existing right-of-way, sidewalks, easements, street zoning and property zoning of record, critical elevations and building setbacks required by law, general block plan and other plan and other pertinent survey data which may be required. The Building Official may waive the requirements for such a survey when property line stakes are existing exist and are known to be in place, and the work involved is minor or is clearly within building lines.

Exceptions:

1. The Building Official may authorize the issuance of a permit without plans or specifications for small or unimportant work, but in no instance where the work is of a structural nature except as set forth below.

2. The Building Official will authorize the issuance of a permit for a single-family fall-out shelter without a professional seal on the plans where the cost of such work does not exceed five thousand dollars (\$5,000.00).

107.3.5 Minimum plan review criteria for buildings. The examination of the documents by the Building Official, Fire Marshal/Fire Code Official or their duly authorized representative or fire marshal/fire code official, or their duly authorized representative for that discipline qualified under Section 104 of this Code shall include the following minimum criteria and documents: energy conservation code compliance documents, a floor plan; site plan; foundation plan; floor/roof framing plan or truss layout; all fenestration penetrations; flashing; and rough opening dimensions; and all exterior elevations:

A. Building.

- 1. Site requirements:
 - a. Parking
 - b. Fire access
 - c. Vehicle loading
 - d. Driving/turning radius
 - e. Fire hydrant/water supply/Post Indicator Valve (PIV)
 - f. Setback/separation (assumed property lines)
 - g. Location of specific tanks, water lines, and sewer lines
 - h. Flood hazard areas, flood zones, design flood elevations, lowest floor elevations, enclosures, equipment, and flood damage-resistant materials
- 2. Occupancy group and special occupancy requirements shall be determined.
- 3. The minimum type of construction shall be determined (see FBC, Building, table 504 3a).
- 4. Fire-resistant construction requirements shall include the following components:
 - a. Fire-resistant separations
 - b. Fire-resistant protection for the type of construction
 - c. Protection of openings and penetrations of all rated components
 - d. Fire blocking and draft-stopping
 - e. Calculated fire resistance
- 5. Fire suppression systems shall include:
 - a. Early warning

- b. Smoke evacuation systems schematic
- c. Fire sprinklers
- d. Standpipes
- e. Pre-engineered systems
- f. Riser diagram
- 6. Life Safety systems shall be determined and shall include the following requirements:
 - a. Occupant load and egress capacities
 - b. Early warning
 - c. Smoke control
 - d. Stair pressurization
 - e. Systems schematic
 - f. BDA submittal, if applicable
- 7. Occupancy Load/Egress Requirements shall include:
 - a. Occupancy load
 - b. Gross occupancy
 - c. Net occupancy
 - d. Means of egress
 - e. Exit access
 - f. Exit
 - g. Exit discharge
 - h. Stairs construction/geometry and protection
 - i. Doors
 - j. Emergency lighting and exit signs
 - k. Specific occupancy requirements
 - I. Construction requirements
 - m. Horizontal exits/exit passageways
- 8. Structural requirements shall include:
 - a. Soil conditions/analysis
 - b. Termite protection
 - c. Design loads
 - d. Wind requirements
 - e. Building envelope
 - f. Structural calculations (if required)
 - g. Foundation
 - h. Impact-resistant coverings or systems

- i. Wall systems
- j. Floor systems
- k. Roof systems
- I. Threshold inspection plan
- m. Stair systems
- n. Flood requirements in accordance with Section 1612, including lowest floor elevations, enclosures, flood damage-resistant materials
- o. For windows and door replacement, include the Broward County Uniform Retrofit Window and Door Schedule
- 9. Materials shall be reviewed and shall, at a minimum, include the following:
 - a. Wood
 - b. Steel
 - c. Aluminum
 - d. Concrete
 - e. Plastic
 - f. Glass
 - g. Masonry
 - h. Gypsum board and plaster
 - i. Insulating (mechanical)
 - j. Roofing
 - k. Insulation
- 10. Accessibility requirements shall include the following:
 - a. Site requirements
 - b. Accessible route
 - c. Vertical accessibility
 - d. Toilet and bathing facilities
 - e. Drinking fountains
 - f. Equipment
 - g. Special occupancy requirements
 - h. Fair housing requirements
- 11. Interior requirements shall include the following:
 - a. Interior finishes (flame spread/smoke develop)
 - b. Light and ventilation
 - c. Sanitation
- 12. Special systems:

- a. Elevators
- b. Escalators
- c. Lifts
- 13. Swimming pools:
 - a. Barrier requirements
 - b. Spas
 - c. Wading pools
- 14. Photovoltaic:
 - a. Site plan
 - b. Roof penetration approval
 - c. Roof sealing detail
 - d. Wind resistance ratings of modules
 - e. Roof live load approval
 - f. Fire classification of buildings and modules
 - g. Rooftop shingle module ratings, if installed
 - h. Design load path

B. Electrical

- 1. Wiring methods and materials
- 2. Services, including riser diagram electrical or fire
- 3. Feeders and branch circuits, including circuit and location, AFCI's and GFCI's
- 4. Overcurrent protection
- 5. Grounding and bonding
- 6. Equipment location, sizes, all equipment
- 7. Special occupancies
- 8. Emergency systems
- 9. Communication systems
- 10. Low voltage
- 11. Load calculations and panel schedules
- 12. Design flood elevations
- 13. Short circuit analysis
- 14. Electrical legend
- 15. Lighting specifications
- 16. Accessibility requirements
- 17. Selective coordination study, if required by NFPA 70

- 18. Emergency generator, if applicable
- 19. Photovoltaic:
 - a. Layout plan including combiner box and accessible junction boxes
 - b. Size of system number of modules
 - c. Wire size at the coldest temperature
 - d. Listing and model numbers of all equipment and racking
 - e. Inverter rating and location
 - f. Three-line diagram
 - g. Connection to utility line side or load side Busbar ratings
 - h. Grounding
 - i. Labeling

C. Gas

- 1. Gas piping
- 2. Venting
- 3. Combustion air
- 4. Chimneys and vents
- 5. Appliances
- 6. Type of gas
- 7. Fireplaces
- 8. LP tank location
- 9. Riser diagram/shutoffs
- 10. Design flood elevation

D. Mechanical

- 1. Calculation of heating and cooling loads as required by FBC, Energy Conservation.
- 2. A complete duct layout with:
 - a. Specified materials
 - b. Duct sizes
 - c. Ventilation calculations, outside air intakes/makeup air
 - d. CFM air volumes at each duct inlet and outlet
 - e. Diffuser sizes
 - f. Routing and location of ducts, including risers
 - g. Thermal resistance ratings for ducts and duct insulation
- 3. Heating, ventilation, air conditioning, and refrigeration equipment, boilers, and appliances shall show:
 - a. Equipment manufacturer

- b. Equipment model numbers
- c. Equipment locations
- d. Equipment efficiency ratings
- e. Equipment mounting/support details (mechanical equipment exposed to the wind must comply with Section 301.15 of the Florida Mechanical Code)
- f. For air conditioner replacements, include the Broward County Uniform Data Form for residential and light commercial air conditioning replacements.
- 4. Roof-mounted equipment shall show:
 - a. Equipment access
 - b. Equipment capacity in tonnage and horsepower
 - c. Air conditioning refrigerant type and amount of refrigerant in the system (pounds)
 - d. Detail of equipment attachment to roof stand/curb and attachment of roof stand/curb to supporting structure (must comply with requirements of the High-Velocity Hurricane Zone)
 - e. Include Roof Top Mounted Equipment Affidavit
- 5. Fire protection assemblies and devices show shall show make, model, type, location, and installation details for, but not limited to:
 - a. Fire dampers
 - b. Ceiling dampers
 - c. Smoke dampers
 - d. Smoke detectors (duct)
 - e. Heat detectors
 - f. Automatic fire doors
 - g. Clean agent fire suppression systems
- 6. Exhaust systems show shall show:
 - a. Bathroom ventilation
 - b. Kitchen equipment exhaust
 - c. Clothes dryer exhaust
 - d. Specialty exhaust systems
 - e. Laboratory
 - f. Smoke control systems
- 7. Piping <u>shall</u> show:
 - a. All piping materials and sizes
 - b. Piping locations and terminations
 - c. Piping insulation materials and thickness
- 8. Chimneys, fireplaces, and vents <u>shall</u> show:

- a. Location
- b. Venting requirements
- c. Combustion air
- 9. Other:
 - a. Details for exterior ventilation devices
 - b. Any available product specifications
 - c. Product listings
 - d. Compressed air, vacuum, and pneumatic systems, and
 - e. Liquid fuel storage and dispensing
- 10. Mechanical equipment, devices, <u>appliances</u>, and appurtenances compliance with the design flood elevation.

E. Plumbing

- 1. Minimum plumbing facilities
- 2. Fixture requirements
- 3. Water supply piping
- 4. Sanitary drainage
- 5. Water heaters
- 6. Vents
- 7. Roof drainage
- 8. Backflow prevention
- 9. Irrigation
- 10. Location of the water supply line
- 11. Grease traps
- 12. Environmental requirements
- 13. Plumbing risers/isometric
- 14. Design flood elevation

F. Demolition.

1. Asbestos removal

107.3.5.1 Plans or specifications completely defining the work for each discipline (electrical, mechanical, plumbing, roofing, and structural) shall be submitted. Plans shall be electronically or mechanically reproduced prints on substantial paper showing completely all foundation, wall sections, floor plans, roof plans, and elevations at a scale no less than 3/16-inch equals one (1) foot, and the main details at a scale not less than 3/16-inch equals one (1) foot, and the main details at a scale not less than 3/16-inch equals one (1) foot or equivalent metric scale. Electrical plans shall be drawn at a minimum scale of ¼-inch equals one (1) foot for all buildings of less than five thousand (5,000) square feet or equivalent metric scale, except that an isometric or riser diagram need not be to scale. Designated electrical equipment rooms and meter rooms shall be drawn at a minimum scale of ½-inch equals one (1) foot or equivalent metric scale.

107.3.5.2 Computations, stress diagrams, shop drawings, results of site tests, floor plans of existing buildings to which additions are proposed, and other data necessary to show compliance with this Code, the correctness of the plans, and the sufficiency of structural and mechanical design shall be included when required by the Building Official.

107.3.5.2.1 When applying for a permit, calculations prepared by the designer of record for Group R3 or R2 (townhouse only) shall be submitted for the complete building for the structural requirements of this Code.

Exception: Component systems covered by product approval or designed by a delegated professional.

107.3.5.3 Any specifications in which general expressions are used to the effect that "work shall be done in accordance with the Building Code" or "to the satisfaction of the Building Official" shall be deemed imperfect and incomplete, and every reference to this Code shall be by section or subsection number applicable to the materials to be used, or to the methods of construction proposed.

107.3.5.4 Product approvals shall be reviewed and approved by the building designer prior to submittal to verify that such products comply with the design specifications. Reviewed and approved product approvals shall then become part of the plans or specifications. Product approval shall be filed with the Building Official for review and approval prior to installation.

107.3.5.5 When applying for a permit, the Architect or Engineer of Record shall provide a framing plan. The truss system designer (delegated engineer) shall submit to the architect or engineer of record a truss system shop drawing that conforms to this framing plan, plus a collation of the applicable truss designs and truss connections which that denote their location on the placement plan. The truss system shop drawing does require the seal of an engineer and shall be reviewed and accepted by the architect or engineer of record for conformance to design concepts and load interaction with the building. After the Architect or Engineer of Record has have-indicated their review and acceptance, the truss system shop drawings, design drawings for individual trusses, and truss-to-truss connection details shall be submitted to the building department. This submittal shall take place prior to the inspection of the foundation. The designs for individual trusses shall be prepared by an engineer.

107.3.5.6 Structural and fire resistance integrity. Plans for all buildings shall indicate how required structural and fire resistance integrity will be maintained where penetration of a required fire-resistant wall, floor, or partition will be made for electrical, gas, mechanical, plumbing, and-communication conduits, pipes, and systems. Such plans shall also indicate in sufficient detail how the fire integrity will be maintained where required fire-resistant floors intersect the exterior walls and where joints occur in required fire-resistant construction assemblies.

107.4 Amended construction documents. Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted to the Building Official for approval as an amended set of construction documents.

107.5 Retention of construction documents. One (1) set of approved construction documents shall be retained by the Building Official for a period of not less than what is required by Section 107.5.1, 107.5.2, or 107.5.3; or as required by Florida Statutes and Administrative Rules (General Records Schedule GS1-SL for state and local government agencies).

107.5.1 Architectural/Building Plans: Commercial. For <u>the</u> life of <u>the</u> structure or ten (10) anniversary years after issuance of <u>the</u> Certificate of Occupancy, completion, or final inspection of the permitted work, whichever is later.

107.5.2 Architectural/Building Plans: Residential. For ten (10) anniversary years after issuance of <u>the</u> Certificate of Occupancy or final inspection. **107.5.3 Architectural/Building Plans and Permits, Abandoned/With-Drawn.** For six (6) months after <u>the</u> last action.

107.6 Affidavits. Reserved. The Building Official may accept a sworn affidavit from a registered architect or engineer stating that the plans submitted conform to the technical codes. For buildings and structures, the affidavit shall state that the plans conform to the laws as to egress, type of construction, and general arrangement and, if accompanied by drawings, show the structural design and that the plans and design conform to the requirements of the technical codes as to strength, stresses, strains, loads and stability. The Building Official may, without any examination or inspection, accept such affidavit, provided the architect or engineer who made such affidavit agrees to submit to the Building Official copies of inspection reports as inspections are performed and upon completion of the structure, electrical, gas, mechanical or plumbing system has been erected in accordance with the requirements of the technical codes. Where the Building Official relies upon such affidavit, the architect or engineer shall assume full responsibility for compliance with all provisions of the technical codes and other pertinent laws or ordinances. The Building Official shall ensure that any person conducting plans review is qualified as a plans examiner under Florida Statute, Part XII of Chapter 468.

107.6.1 Building permits issued in flood hazard areas on the basis of an affidavit. Pursuant to the requirements of federal regulation for participation in the National Flood Insurance Program (44 C.F.R. Parts 59 and 60), the authority granted to the Building Official to issue permits, to rely on inspections, and to accept plans and construction documents on the basis of affidavits and plans submitted pursuant to Sections 105.14 and 107.6, shall not extend to the flood load and flood-resistance construction requirements of the *Florida Building Code*.

107.6.2 Affidavits provided pursuant to Florida Statute, Section 553.791. For a building or structure in a flood hazard area, the Building Official shall review any affidavit certifying compliance with the flood load and flood-resistant construction requirements of the Florida Building Code.

Section 108 Temporary Structures and Uses

108.1 General. The Building Official is authorized to issue a special building permit for the erection of temporary structures and temporary uses such as seats, canopies, tents, and fences used in construction work or for temporary purposes such as viewing stands. Such permits shall be limited as to <u>the</u> time of service but shall not be permitted for more than one hundred eighty (180) days. The Building Official is authorized to grant extensions for demonstrated cause.

108.2 Conformance. Temporary structures and uses shall conform to the fire safety, means of egress, accessibility, light, ventilation, and sanitary requirements of this Code and FBC, Building Section 3103, as necessary to ensure public health, safety, and general welfare.

108.3 Temporary power. The Building Official/Chief Electrical Inspector is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat, or power in Chapter 27 of FBC, Building.

108.4 Termination of approval. The Building Official is authorized, for good cause, to terminate such permit for a temporary structure or use and to order the temporary structure or use to be discontinued.

Section 109 Fees

109.1 Payment of fees. A permit shall not be valid until the fees prescribed by law have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.

109.2 Schedule of permit fees. On all buildings, structures, electrical, plumbing, mechanical, and gas systems or alterations requiring a permit, a fee for each permit shall be paid as required in accordance with the schedule as established by the applicable governing authority.

109.3 Building permit valuations. The applicant for a permit shall provide an estimated <u>permit job</u> value at the time of application. Job Permit valuations shall include <u>the</u> total value of work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment, and permanent systems. If, in the opinion of the Building Official, the valuation is underestimated on the application, the permit shall be denied unless the applicant can show detailed estimates to meet the approval of the Building Official. The final building permit valuation shall be set by the Building Official.

109.3.1 The Building Official may require an estimate of the cost utilizing RSMeans or other descriptive data as a basis for determining the permit fee. As mandated by HB-401-2021 Florida Statute, 553.79(1)(f), a local government may not require a contract between a builder and an owner for the issuance of a building permit or as a requirement for the submission of a building permit application.

109.4 Work commencing before permit issuance. Any person who commences any work on a building, structure, electrical, gas, mechanical, or plumbing system before obtaining the necessary permits or the Building Official's written approval shall be subject to a penalty not to exceed one hundred (100) percent of the usual permit fee that shall be in addition to the required permit fees.

109.5 Related fees. Reserved.

109.6 Refunds. Reserved. Refer to Florida Statute 553.

Section 110 Inspections

110.1 General. Construction or work for which a permit is required shall be subject to inspection by the Building Official, and such construction or work shall remain accessible and exposed for inspection purposes until approved. Approval of an inspection shall not be construed to be an approval of a violation of the provisions of this Code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel the provisions of this Code or of other ordinances of the jurisdiction shall not be valid. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the Building Official nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

110.1.1 The Building Official shall make inspections required by this Code or may accept reports in writing and certified by inspectors with recognized qualifications for special inspections.

110.1.2 No inspection shall be made until sanitary facilities have been provided, as required in Section 311.1 of the FBC, Plumbing.

110.1.3 When the services, reports of inspections, and testing laboratories are required by this Code, only such services and reports shall be accepted as are submitted from impartial inspecting and testing laboratories having an Engineer in active, responsible charge. When required by the Code, only services and reports from impartial testing laboratories having an engineer in active, responsible charge shall be accepted.

110.1.4 Testing laboratories engaged in the sampling and testing of concrete and steel products shall have complied comply with the standard specification for agencies engaged in construction inspection, testing, or special inspection ASTM E329-14a.

110.1.5 Testing laboratories located outside of the State of Florida and under the supervision of an Engineer legally qualified in the State in which the laboratory is located, and where such testing laboratory has complied with the above Standard, may submit test reports as required by this Code. Testing laboratories located outside of the State of Florida shall be under the supervision of an engineer legally qualified in the state in which the laboratory is located. The testing laboratory shall comply with the standard specification for agencies engaged in construction inspection, testing, or special inspection ASTM E329-14a.

110.1.6 All equipment, material, power, coordination for access, and labor necessary for inspection or test shall be supplied by the permit holder.

110.1.7 Concealed Work. The Building Official or their duly authorized representative may order portions of the structural frame of a building or structure to be exposed for inspection when, in their opinion, there is a good reason to believe that a building or portion thereof is in an unsafe or dangerous condition or that there is willful or negligent concealment of a violation of this Code.

110.2 Preliminary inspection. Before issuing a permit, the Building Official is authorized to examine or cause to be examined buildings, structures, and sites for which an application has been filed.

110.3 Required Inspections. The Building Official, upon notification from the permit holder or their agent, shall make the following inspections performed by Inspectors certified by BORA in the categories involved perform the required inspections by BORA certified inspectors within their specific disciplines. Who The inspector shall either release that portion of the work completed or shall notify the permit holder or their agent of any violations, which shall be corrected in order to comply with the technical codes. The Building Official shall determine the timing and sequencing of when inspections occur and what elements are inspected at each inspection.

A. Building.

- 1. **Piling.** To be made during the installation of piles by <u>the Special Inspector.</u>
- 2. **Foundation Inspection.** Include piling/pile caps, footer/grade beams, stem-wall, and monolithic slab-on-grade to be made after necessary excavation, form erection, and reinforcing steel placement prior to pouring of concrete.
 - a. In flood hazard areas, upon placement of the lowest floor, including <u>the</u> basement, and prior to further vertical construction, the elevation certification shall be submitted to the AHJ.
- 3. Floor Slab on Grade or Elevated. To be made after necessary excavations, form erection as may be required, placement of reinforcing steel, mesh, and vapor barrier when specified, and prior to pouring concrete.
- 4. Concrete Columns: and Beams.
 - a. **Concrete Columns.** To be made after the placement of reinforcing steel and prior to the complete erection of forms and pouring of concrete.
 - b. **Concrete Beams.** To be made after the erection of forms, placement of reinforcing steel, hangers, bracing, and shoring, and prior to pouring of concrete
- 5. Concrete Unit Masonry/Engineered Masonry. To be made at each successive pour after placement of the reinforcement and prior to the pouring of grout. See Sections 110.10.2.12 and 110.10.5.2.2
 - a. Vertical cells
 - b. <u>Columns</u>
 - c. <u>Lintels</u>
 - d. <u>Tie beams</u>
- -6. **Concrete Beams:** To be made after the erection of forms, placement of reinforcing steel, hangers, bracing, and shoring, and prior to pouring of concrete.
- **6. Roof/Floor Trusses.** To be made after the erection of truss members, permanent and temporary bracing, roof sheathing, and bottom chord furring members and anchors.
- 7. Wall/Floor Sheathing. To be made after placement of panels or planking and sheathing fasteners.

- 8. **Roof Sheathing.** To be made after placement of panels or planking and sheathing fasteners, prior to application of base or anchor coat of roofing.
- 9. **Roofing Inspection.** To be made in accordance with Chapter 15 of the FBC, Chapter 44 of the Florida Residential Code, and Section 706 of the FBC, Existing Building.
- 10. Window and Door Inspection. Two (2) inspections are to be made, one (1) after door and window bucks have been installed and the second after window and door assemblies have been installed and before attachments and connections to the building frame are concealed.
- 11. Framing Inspection. To be made after the installation of all structural elements, including the roof, furring, fire stops, fire-blocking, nailers, anchors, and bracing in place, chimneys, and prior to the installation of interior cladding, but after inspection of rough in electrical, mechanical, and plumbing, which shall be completed prior to the request for a framing inspection. See mandatory inspections for electrical, mechanical, and plumbing. Framing inspection shall, at a minimum, include the following building components:
- 12. Framing Inspection: To be made after the installation of all structural elements, including the roof, furring, fire stops, fire blocking, nailers, anchors, and bracing in place, chimneys, and prior to the installation of interior cladding, but after inspection of rough in electrical, mechanical and plumbing, which shall be completed prior to the request for <u>a</u> framing inspection. See mandatory inspections for electrical, mechanical, and plumbing. Framing inspection shall, at a minimum, include the following building components:
 - a. Window/door framing
 - b. Vertical cells/columns
 - c. Lintel/tie beams
 - d. Framing/trusses/bracing/connectors
 - e. Draft stopping/fire blocking/fire stopping
 - f. Curtain wall framing
 - g. Accessibility
 - h. Verify rough opening dimensions are within tolerances
- 13. Roof/Floor Trusses: To be made after the erection of truss members, permanent and temporary bracing, roof sheathing, and bottom chord furring members and anchors.
- 14. **Roof Sheathing:** To be made after placement of panels or planking and sheathing fasteners, prior to application of base or anchor coat of roofing.
- 15. Wall/Floor Sheathing: To be made after placement of panels or planking and sheathing fasteners.
- 16. **Roofing Inspection:** To be made in accordance with Chapter 15 of the FBC, Chapter 44 of the Florida Residential Code, and Section 706 of the FBC Existing Building.
- 17. Window and Door Inspection: Two (2) inspections are to be made, one (1) after door and window bucks have been installed and the second after window and door assemblies have been installed and before attachments and connections to the building frame are concealed.

<u>12.18</u> Wire Lath. To be made after installation of all metal lath and accessories prior to application of any coatings.

- **18. <u>13.</u> Exterior wall covering.** Shall, at a minimum, include the following building components inprogress inspections:
 - a. Exterior wall covering and veneers

- b. Soffit coverings
- **19. <u>14.</u> Energy insulation.** After installation in compliance with type and "R" values stipulated in energy calculations and prior to installation of rock lath and drywall.
- 20. <u>15.</u> Rock Lath. To be made after installation of all rock lath, corner beads, strip reinforcement, and nailers for molding and trim and prior to application of plaster basecoat.
- 21. 16. Drywall. To be made after installation of drywall panels and prior to taping and spackling.
- 22. <u>17.</u> Curtain Wall Inspection. To be made at each floor level after curtain walls are installed and before curtain wall attachments are concealed.
- 23. <u>18.</u> Storefront Inspection. To be made after storefronts are installed and before storefront attachments are concealed.
- **Concealed Work:** The Building Official or their duly authorized representative may order portions of the structural frame of a building or structure to be exposed for inspection when, in their opinion, there is a good reason to believe that a building or portion thereof is in an unsafe or dangerous condition or that there is willful or negligent concealment of a violation of this Code.
- 24. <u>19.</u> Hurricane Shutters. To be made before the attachments and connections to the building are concealed and when <u>a</u> job is completed. All shutters shall be installed for final inspection. On occupied buildings, all required means of egress and emergency exits shall be left uncovered.
- 25. 20. Photovoltaic.
 - a. Rough
 - 1. Check specifications, model numbers, and layout
 - 2. Check attachments, penetrations on the roof, torque requirements
 - b. Final
- 26. <u>21. Final Inspection</u>. To be made after installation and completion of all elements of construction, safeguards, and protective devices and after final electrical, mechanical, and plumbing. Approval of Fire Department accessibility and all tests of fire alarm detection and suppression systems, smoke evacuation systems, and life safety systems shall be approved prior to final inspection and issuance of Certificate of Occupancy.
 - a. In flood hazard areas, as part of the final inspection, final certification of the lowest floor elevation <u>or the elevation to which a building is dry floodproofed, as applicable</u>, shall be submitted to the authority having jurisdiction.
- 23. <u>22.</u> Certificate of Occupancy. This final inspection shall signify the completion of all work and that the structure is safe for occupancy. Final adjustments to mechanical devices may be made after this inspection and during occupancy.
- 24. 23. Fence. Post-hole inspection when required. Final.
- 25. <u>24. Swimming Pools/Spas Inspection.</u> First inspections <u>shall</u> to be made after excavation and installation of reinforcing steel, bonding, and main drain and prior to placing of concrete, gunite, or shotcrete. Second inspection(s) of perimeter plumbing, pressure test, deck electrical perimeter bonding, and deck structural (includes soil reports as applicable, paver type decks, special perimeter footings, or deck features) is (are) to follow after the completion of each phase. Child barrier (exit) alarms (if applicable) and yard barriers that are part of the fourth wall protection, as described in FBC Building, Section 454.2.17, shall be completed and approved <u>for</u> inspection prior to the swimming pool/spa being filled with water. Final zoning (if applicable) is to be completed prior to the swimming pool/spa being completed. <u>The</u> electrical final is to be completed prior to the swimming pool/spa being filled with water.

completed after the swimming pool/spa is filled with water and the filtration system is in operation.

a. Structural inspections:

(1) Steel

- (2) Deck (includes soil reports as applicable, paver-type decks, special perimeter footings, or deck features)
- (3) Child barrier fences (if applicable) and yard barriers that are part of the fourth wall protection prior to the swimming pool/spa being filled with water
- (4) Final structural (after filling the swimming pool/spa with water and the filtration system is in operation)

First inspections are to be made after excavation and prior to placing concrete, gunite, or shotcrete.

- <u>Excavation safety fencing prior to the first inspection</u>
- Soil reports as applicable
- <u>Piling certification as applicable</u>
- <u>Reinforcing steel installation</u>

After placing concrete, gunite, or shotcrete.

• Survey as applicable

Pool deck

- <u>Placement of concrete reinforcement (if applicable)</u>
- Paver deck, footings, deck features, compaction tests/soil reports as applicable

Final Inspections prior to filling the pool.

- Child safety barrier Florida Statute 515
- <u>Perimeter fence (if applicable)</u>
- <u>Screen enclosure (if applicable)</u>

B. Electrical.

- 1. **General.** All underground, slab, low voltage, and rough electrical installations shall be left uncovered and convenient for examination until Inspected and approved by the electrical inspector.
- 2. Temporary Electrical Service Installations.
 - a. Rough
 - b. Final
- 3. **Underground Electrical Inspection.** To be made after trenches or ditches are excavated, underground conduits or cables installed, and before any backfill is put in place.
- 4. **Slab Electrical Inspection.** To be made and after conduits and boxes are installed and prior to pouring concrete.
 - a. Grounding electrode conductor to foundation steel
- 5. **Rough Electrical Inspection.** To be made after the roof, framing, fire blocking bracing are in place, the building is deemed dry, and conduits, cables, panels, receptacles, etc. are installed, and prior to the installation of wall or ceiling membranes.

6. Electrical Service Inspection.

- a. Electrical rough
- b. Electrical final inspection
- 7. Miscellaneous Electrical Inspection.
- 8. Swimming Pool/Spa Electrical Inspection.
 - a. Steel bonding
 - b. Underground
 - c. Deck perimeter bonding
 - d. Electrical rough
 - e. Final electrical prior to the swimming pool/spa being filled with water.
 - f. Existing Swimming Pools. To be made after all repairs or alterations are complete, all required electrical equipment, GFCI protection, and equipotential bonding are in place on said alterations or repairs.

9. Temporary Electrical 30-day Power for Testing.

- 10. Photovoltaic.
 - a. Rough. Before modules are installed
 - 1. Check specifications, model numbers, and layout
 - 2. All wiring for junction boxes, combiner, and inverter completed
 - 3. Grounding system completed, torque requirements

Exception: The modules for rail-less systems may not require a rough inspection.

- b. Final. The module must be available for inspection
 - 1. Verify proper labeling
 - 2. Test system
- c. Service change, if required by the design
- 11. **Final Inspection.** To be made after the building is complete, all electrical fixtures are in place and properly connected or protected, and the structure is ready for occupancy and deemed safe for power by the Building Official. The final electrical inspection shall be made prior to the final structural inspection.

C. Gas.

- 1. **General.** To be made for all underground work and at each floor and roof level where gas work is installed. All gas work shall be left uncovered and convenient for examination until inspected and approved by the plumbing inspector.
- 2. **Underground inspection.** To be made after trenches or ditches are excavated, piping installed, and before any backfill is put in place.
- 3. **Rough piping inspection.** To be made after all new piping authorized by the permit has been installed and before any such piping has been covered or concealed or any fixtures or gas appliances have been connected. This inspection shall include a pressure test.
- 4. **Final Gas inspection.** To be made on all new gas work authorized by the permit and such portions of existing systems as may be affected by new work or any changes to ensure compliance with all

the requirements of this Code and to assure that the installation and construction of the gas system is in accordance with reviewed plans.

i. Final gas Inspection shall be made prior to the final structural inspection.

D. Mechanical.

- 1. **General.** To be made for all underground work and at each floor and roof level where mechanical work is installed. All mechanical work shall be left uncovered and convenient for examination until inspected and approved by the mechanical inspector.
- 2. **Underground inspection.** To be made after trenches or ditches are excavated, underground ducts and all piping installed, and before any backfill is put in place.
- 3. **Rough-in inspection.** To be made after the roof, framing, fire blocking, and bracing are in place, and all ducting and other concealed components are complete, and prior to the installation of wall or ceiling membranes.
- 4. **Final mechanical inspection.** To be made after the building is complete, the mechanical system is in place and properly connected, and the structure is ready for occupancy.

The final mechanical inspection shall be made prior to the final structural inspection.

E. Plumbing.

- 1. **General.** To be made for all underground work and at each floor and roof level where plumbing work is installed. All plumbing work shall be left uncovered and convenient for examination until inspected and approved by the plumbing inspector.
- 2. **Underground inspection:** To be made after trenches or ditches are excavated, piping installed, and before any backfill is put in place.
- 3. **Rough-in inspection.** To be made after the roof, framing, fire-blocking, and bracing are in place, and all soil, waste, and vent piping is complete, and prior to this installation of wall or ceiling membranes. Floors shall be left open in all bathrooms and elsewhere above all sanitary plumbing and water-supply piping and other plumbing work until it shall have been examined, tested, and approved.
- 4. Swimming Pool/Spa Plumbing Installations.
 - a. Main drain(s)
 - b. Perimeter plumbing, pressure test, and water features
 - c. Final plumbing (after filling the swimming pool/spa with water and the filtration system is in operation)
 - d. <u>If a gas appliance, decorative appliance, or a pool heater is installed. See Section 110.3.C.</u> <u>Gas.</u>
- 5. **Final plumbing inspection.** To be made after the building is complete, all plumbing fixtures are in place and properly connected, and the structure is ready for occupancy. Water shock or hammer in the water supply system will cause it to fail the final inspection.

Note: See Section 312 of the FBC, Plumbing, for required tests

Final plumbing inspection shall be made prior to the final structural inspection.

F. Demolition Inspections. <u>The</u> first inspection <u>is</u> to be made after all utility connections have been disconnected and secured in such a manner that no unsafe or unsanitary conditions shall exist during or after demolition operations.

Final inspection to be made after all demolition work is completed.

G. **Manufactured building inspections.** The Building Department shall inspect the construction of foundations; connecting buildings to foundations; installation of parts identified on plans as site-installed items, joining the modules, including utility crossovers; utility connections from the building to utility lines on-site; and any other work done on-site which requires compliance with the FBC. Additional inspections may be required for public educational facilities (see Section 453.27.20 of FBC, Building).

110.3.1 Footing and foundation inspection. See Section 110.3 A, Building, of this Code.

110.3.2 Concrete slab and under-floor inspection. See Section 110.3 A, Building, of this Code.

110.3.3 Lowest floor elevation. Reserved.

110.3.4 Reinforcing steel and structural frames. No reinforcing steel or structural framework of any part of any building or structure shall be covered or concealed in any manner whatsoever without the approval of the Building Official. It shall be unlawful for any person, firm or corporation, or their agents or employees, to cover or conceal any wiring for light, heat, power, or low voltage systems until the appropriate sections of the building permit card or inspection record are signed, signifying that the wiring has been inspected and approved.

110.3.5. Lath and gypsum board inspection. Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place, but before any plastering is applied or gypsum board joints and fasteners are taped and finished.

Exception. Reserved.

110.3.5.1 Weather-exposed balcony and walking surfaces waterproofing. Where balcony or other elevated walking surfaces are exposed to water from direct or blowing rain or irrigation, and the structural framing is protected by an impervious moisture barrier, all elements of the impervious moisture barrier system shall not be concealed until inspected and approved.

110.3.6. Fire- and smoke-resistant penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies, smoke barriers, and smoke partitions shall not be concealed from view until inspected and approved.

110.3.7. Energy efficiency inspections. Inspections shall be made to determine compliance with FBC, Energy Conservation Code and shall include, but not be limited to, inspections for envelope insulation R- and U-values, fenestration U-value, duct system R-value, and HVAC and water heating equipment efficiency per C104.2 and R104 .2 of the FBC, Energy Conservation EC as described in Sections 110.3.7.1 and 110.3.7.2.

110.3.7.1 Rough inspections:

- Footing and foundation inspection. Inspections associated with footings and foundations shall verify compliance with the code as to R-value, location, thickness, depth of burial, and protection of insulation as required by the code, and approved plans and specifications.
- 2) Framing and rough-in inspection. Insulation inspections at framing and rough-in shall be made before <u>the</u> application of interior finish <u>in compliance</u> and <u>verify compliance</u> with the code. <u>Inspections shall verify</u> as to the types of insulation, and corresponding R-values, and their <u>correct</u> location and proper installation. Fenestration properties (U-factor, SHGC, and VT), and proper installation, and air leakage controls as <u>shall be verified as</u> required by the code, and approved plans and specifications.
- Plumbing rough-in inspection. Inspections at plumbing rough-in shall verify compliance as required by the code, and approved plans, and specifications as to types of insulation, and corresponding R-values, and protection, required controls, and required heat traps.

4) Mechanical rough-in inspection

a) Commercial. Inspections at mechanical rough-in shall verify compliance as required by the code, and approved plans, and specifications as to installed HVAC equipment type

and size; required controls, system insulation, and corresponding R-value; system and damper air leakage; and required energy recovery and economizers.

b) Residential. Inspections at mechanical rough-in shall verify compliance as required by the code, and approved plans, and specifications as to installed HVAC equipment type and size, required controls, system insulation and corresponding R-value, system air leakage control, programmable thermostats, dampers, whole-house ventilation, and minimum fan efficiency.

Exception: Systems serving multiple dwelling units <u>exceeding three stories</u> shall be inspected in accordance with <u>the</u> Florida Energy Conservation Code for commercial buildings, <u>Section C104.2.4</u>.

5) **Electrical rough-in inspection.** Inspections at electrical rough-in shall verify compliance as required by the code, and approved plans, and specifications as to installed lighting systems, components, and controls, and installation of an electric meter for each dwelling unit.

110.3.7.2 Final inspection.

- Commercial. The building shall have a final inspection and shall not be occupied until approved. The final inspection shall include verification of the installation, and proper operation of all required building controls, and documentation verifying activities associated with required building commissioning have been conducted and findings of noncompliance corrected. Buildings, or portions thereof, shall not be considered for a final inspection until the code official has received the Preliminary Commissioning Report and has also received a letter of transmittal from the building owner acknowledging that the building owner has received the Preliminary Commissioning Report as required in Section C408.2.4 of the FBC, Energy Conservation Code.
- 2. **Residential.** The building shall have a final inspection and shall not be occupied until approved. The final inspection shall include verification of the installation of all required building systems, equipment, and controls and their proper operation, and the required number of high-efficacy lamps and fixtures.

110.3.8 Other inspections. In addition to the inspections previously specified, the Building Official is authorized to make or require other inspections of any construction work to ascertain compliance with the provision of this Code and other applicable laws.

110.3.9 Special inspections. See Section 110.10 of this Code.

110.3.10 Final inspection. See Section 110.3 of this Code.

110.3.10.1 Flood hazard documentation. Reserved.

110.3.11 Termites. Building components and building surroundings required to be protected from termite damage in accordance with <u>FBC</u>, <u>Building</u>, Section 1503.7, Section 2304.12, or Section 2304.12.4, specifically required to be inspected for termites in accordance with Section 2114, or required to have chemical soil treatment in accordance with Section 1816 shall not be covered or concealed until the release from the Building Official has been received (refer to Section 105.10, Certificate of Protective Treatment for Prevention of Termites, and Section 105.11, Notice of Termite Protection).

110.3.12. Impact-resistant coverings inspections. Where impact-resistant coverings or impact-resistant systems are installed, the Building Official shall schedule adequate inspections of impact-resistant coverings or impact-resistant systems to determine the following:

- 1. The system indicated on the plans was installed.
- 2. The system is installed in accordance with the manufacturer's installation instructions and the product approval.

110.3.13 Virtual Inspections. When approved by the Building Official, virtual inspections, as set forth in Section 101.2.2, are limited to,

- 1. Attachment of mullion bars in the window and door installations for like-in-kind replacement.
- 2. Reroofing under one thousand five hundred (1,500) square feet in compliance with Section 1512.4.3.2 of this code.
- 3. Tunnel replacement of building drains and water lines.
- 4. Water heater replacement that does not require <u>an</u> electric upgrade or new gas service.

110.4 Inspection agencies. Reserved.

110.5 Inspection requests. It shall be the duty of the permit holder or their duly authorized agent to notify the Building Official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this Code. Failure to request such inspections constitutes a violation of this Code. The inspection request shall be made to the Building Department office at least one (1) day prior to the required inspection and shall provide reasonable time for such inspections to be made. Inspections shall be made not later than the following workday after the day of the request for inspection when a request is made prior to $\frac{12:00}{12:00}$ noon. Requests for inspections received after $\frac{12:00}{12:00}$ noon shall be made not later than the day after the following workday.

110.6 Approval required. No work shall be done on any part of a building or structure or any electrical, mechanical, or plumbing installation beyond the point indicated hereinabove for each successive inspection until such inspection has been made and the work approved<u>and</u>. The inspector <u>shall</u> has so indicate <u>so</u> on the permit card or an inspection record pad at the job site, or other electronic means which has been approved by the Building Official.

110.7 Shoring. For threshold buildings, shoring and associated formwork or false work shall be designed and inspected by an engineer employed by the permit holder or subcontractor prior to any required mandatory inspections by the threshold building inspector.

110.8 Threshold Buildings. For structures defined in <u>Florida Statute</u>, Section 553.71, Florida Statutes, as Threshold Buildings, permitting and inspection shall be as required by <u>Florida Statute</u>, Section 553.79, Florida Statutes.

110.8.1 During new construction or during repair or restoration projects in which the structural system or structural loading of a building is being modified, the enforcing agency shall require a special inspector to perform structural inspections on a threshold building pursuant to a structural inspection plan prepared by the Engineer or Architect of Record. The structural inspection plan must be submitted to the enforcing agency prior to the issuance of a building permit for the construction of a threshold building. The purpose of the structural inspection plans is to provide specific inspection procedures and schedules so that the building can be adequately inspected for compliance with the permitted documents. The Special Inspector may not serve as a surrogate in carrying out the responsibilities of the Building Official, the Architect, or the Engineer of Record. The contractor's contractual or statutory obligations are not relieved by any action of the special inspector.

110.8.2 The Special Inspector shall determine that an engineer who specializes in shoring design has inspected the shoring and reshoring for conformance with the shoring and reshoring plans submitted to the enforcing agency.

110.8.3 A fee simple title owner of a building that does not meet the minimum size, height, occupancy, occupancy classification, or number-of-stories criteria, which would result in classification as a threshold building under Section 553.71(12), may designate such building as a threshold building, subject to more than the minimum number of inspections required by the FBC.

110.8.4 The fee owner of a threshold building shall select and pay all costs of employing a special inspector, but the special inspector shall be responsible to the enforcement agency. The inspector shall be a person

certified, licensed, or registered under <u>Florida Statute</u>, Chapter 471, Florida Statutes, as an engineer or under <u>Florida Statute</u>, Chapter 481, Florida Statutes, as an architect.

110.8.5 Each enforcement agency shall require that, on every threshold building:

110.8.5.1 The special inspector, upon completion of the building and prior to the issuance of a Certificate of Occupancy, file a signed and sealed statement with the enforcement agency in substantially the following form: "To the best of my knowledge and belief, the above-described construction of all structural load-bearing components complies with the permitted documents, and the shoring and reshoring conform to the shoring and reshoring plans submitted to the enforcement agency."

110.8.5.2 Any proposal to install an alternate structural product or system to which building codes apply <u>to</u> be submitted to the enforcement agency for review for compliance with the codes and made part of the enforcement agency's recorded set of permit documents.

110.8.5.3 All shoring and reshoring procedures, plans, and details <u>must</u> be submitted to the enforcement agency for recordkeeping. Each shoring and reshoring installation shall be supervised, inspected, and certified to be in compliance with the shoring documents by the contractor.

110.8.5.4 All plans for the building which are required to be signed and sealed by the architect or engineer of record contain a statement that, to the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with this section and <u>Florida</u> <u>Statute</u>, Chapter 633., Florida Statutes

110.8.5.5 No enforcing agency may issue a building permit for <u>the</u> construction of any threshold building except to a licensed general contractor, as defined in <u>Florida Statute</u>, Section 489.105(3)(a), Florida Statutes, or to a licensed building contractor, as defined in <u>Florida Statute</u>, Section 489.105(3)(b), Florida Statutes, within the scope of her or his their license. The named contractor to whom the building permit is issued shall have the responsibility for supervision, direction, management, and control of the construction activities on the project for which the building permit was issued.

110.8.5.6 The building department may allow a special inspector to conduct the minimum structural inspection of threshold buildings required by this Code, <u>Florida Statute</u>, Section 553.73, Florida Statutes, without duplicative inspection by the building department. The Building Official is responsible for ensuring that any person conducting inspections is qualified as a building inspector under Part XII of <u>Florida Statute</u>, Chapter 468, Florida Statutes, or certified as a special inspector under <u>Florida Statute</u>, Chapter 471 or 481, Florida Statutes Inspections of threshold buildings required by <u>Florida Statute</u>, Section 553.79(5), Florida Statutes, are in addition to the minimum inspections required by this Code.

110.8.5.7 Construction inspected by the Building Department may be rejected or approval refused for reasons of incompleteness or code violation. The work shall be made to comply, and the request for inspection will be repeated as outlined herein. It shall be assumed that the responsible individual or individuals in charge of the work shall have themselves inspected the work and found it to be in compliance with this Code and plan requirements before the request for inspection is made. It is the responsibility of the permit holder to ensure that the job is accessible and means for inspections of such work that are required by this Code for all requested inspections. Failure to provide for this access shall constitute a violation of this Code.

110.9 The Inspector shall inspect all work for which a request for inspection is made and shall, after inspection, either approve by signing the appropriate sections of the building permit card or inspection record or other electronic means which has been approved by the Building Official or disapprove the work and notify the permit holder of the discrepancies found and order corrections within a reasonable period of time. Violations or correction notices shall be written and posted at the job site stating the specific reference to the code section(s)

that have been violated. Any person, firm, or corporation who fails to correct defective work within ten (10) days after having been duly notified of such defects shall not be issued any further permits by the Building Department Permits will resume after the defects have been corrected, inspected, and approved or upon the filing of an appeal with BORA

110.10 Special Building Inspector

110.10.1 The Building Official, upon the recommendation of the Chief Structural Inspector or upon the Building Official's initiative, may require the owner to employ a Special Inspector for the inspection of the structural framework, or any part thereof, as herein required:

110.10.1.1 Buildings or structures or part thereof of unusual size, height, design, or method of construction and critical structural connections:

- 1. Placement of piling.
- 2. Windows, glass doors, external protection devices, and curtain walls on buildings over two (2) stories.
- 3. The method or pace of construction requires continuous inspection.
- 4. In the opinion of the Building Official, any other additional inspections that are required.

110.10.2 The Building Official shall require the owner to employ a special building inspector for the inspections herein required:

110.10.2.1 Precast concrete units

110.10.2.2 Reinforced unit masonry

- **110.10.2.3** Connections
- 110.10.2.4 Metal building systems
- 110.10.2.5 Smoke control systems

110.10.3 The person employed by the owner as a Special Building Inspector shall be subject to verification of qualifications by the Chief Structural Inspector or Chief Mechanical Inspector, as applicable.

110.10.4 The Chief Structural Inspector or Chief Mechanical Inspector, as applicable, shall require that the Architect or Engineer of Record submit an inspection plan which shall specify the scope and nature of inspections to be performed. The Special building Inspector or their authorized representative shall make all inspections in accordance with the approved inspection plan.

110.10.5 Special building Inspector shall be an architect or engineer or their duly authorized representative.

Exception 1: Building Inspectors (structural) certified by BORA who have satisfactorily completed an approved masonry course may perform inspections of Reinforced Unit Masonry and any precast lintels incorporated into such masonry for Group R-3 Occupancy.

Exception 1 2: Special building Inspector for smoke control systems shall meet the qualifications required in FBC 909.18.8.2

110.10.6 The Special building Inspector shall be responsible for compliance with the applicable portions of the permitted construction documents as delineated in the special building inspection plan and shall submit progress reports and inspection reports to the Chief Structural Inspector or Chief Mechanical Inspector, as applicable, for submittal to the Building Official. Structural inspections performed by the Special building Inspector shall satisfy the requirements for mandatory inspections by the FBC.

110.10.6.1 A log of all progress reports and inspection reports shall be maintained at the job site.

110.10.6.2 Signed and sealed progress reports and inspection reports shall be submitted to the Chief Structural Inspector or Chief Mechanical Inspector, as applicable, for submittal to the Building Official on a weekly basis.

Exception: The Chief Mechanical Inspector and or Building Official shall determine the frequency for the submitting of progress reports for smoke control systems.

110.10.6.3 The municipality shall monitor the progress of the Special building Inspector on a regular basis.

110.10.7 At the completion of the work, the Special building Inspector shall submit a signed and sealed Certificate of Compliance to the Chief Structural Inspector or Chief Mechanical Inspector, as applicable for submittal to the Building Official, stating that the work was done, substantially in accordance with the applicable portions of the permitted construction documents as delineated in the special building inspection plan.

Exception: Reports for Smoke Control Systems shall comply with FBC 909.18.8.3 Reports and FBC 909.18.8.3.1 Report filing.

110.11 Official Reports. The Building Official shall keep records of inspections, Certificates of Compliance, results of tests, plans, specifications, surveys, and Certificates of Occupancy for a period of not less than what is required in Section 107.5. Such records shall become a part of the public records and open to public inspection, except as may be elsewhere specifically stipulated.

110.12 Clean-up of Construction Site. Upon completion of the proposed work, the permit holder shall leave the construction site cleared of rubbish, debris, construction sheds, or materials of construction. In the event there has been damage to public property or that rubbish, debris, construction sheds, or materials of construction have been left at the construction site, then the Building Official shall refuse to make <u>a</u> final inspection and shall notify the permit holder to correct the condition of violation with within five (5) days. For failure to comply with such notice after such period of five (5) days, the permit holder is subject to the penalties specified herein, and the Building Official shall have the clean-up work done and public property restored and shall notify the legal authority, who shall institute the necessary action to have the costs placed as a lien against the property in relation to which the permit was issued.

110.13 Special Hurricane Provisions. During such periods of time as are designated by the National Weather Service as being a hurricane watch, all furniture, display racks, material, and similar loose objects in exposed outdoor locations shall be lashed to rigid construction or stored in buildings. The Building Official shall issue orders to secure all construction sites. Orders shall be oral or written and shall be given to any person on the premises most logically responsible for maintenance or by facsimile to the responsible entity if such entity is known.

110.13.1 Any person, firm, or corporation receiving an order from the Building Official to comply with this section shall comply with said order within the time specified on the order.

110.13.2 Construction Waste and Construction Materials.

110.13.2.1 It shall be the joint responsibility of any owner of real property upon which construction is occurring and any contractor responsible for said construction to ensure that all road rights-of-way remain free at all times of all construction waste and trash resulting from such construction and that all waste and trash resulting from the construction are contained on the real property upon which the construction occurs. After a hurricane watch or warning has been suspended, the City's Building Official shall give said owner or contractor reasonable time to clear the road rights-of-way of construction waste and trash.

110.13.2.2 Notices issued by the National Weather Service of a hurricane watch are deemed sufficient notice to the owner of real property upon which construction is occurring or any contractor responsible for said construction to secure loose construction debris and loose construction materials against the effects of hurricane force winds.

110.13.2.3 Pursuant to this section, it shall be a violation of this Code for an owner of the real property upon which construction is occurring, or any contractor responsible for said construction, to have on that property loose construction materials that are not fastened or secured to the ground or any permanent structure. Materials stockpiled on top of any structure under construction shall be permanently installed by the property owner or contractor upon a hurricane watch; provided, however, in the event such installation cannot be timely completed, then the property owner or contractor shall:

- 1. Band together the construction materials and fasten them to the top of the structure in such a manner so as not to present a threat of their becoming airborne during severe weather or
- 2. Remove the construction materials from the top of the structure and fasten them down to the ground or
- 3. Remove the construction materials from the job site or
- 4. Store the construction materials inside an enclosed structure.

110.13.3 From June 1 to November 30 of each calendar year (the National Weather Service designated hurricane season), building materials shall be loaded on a roof no earlier than twenty (20) working days prior to the permanent installation of those materials.

110.13.4 After winds of hurricane velocity are experienced and have subsided, the Building Official shall investigate to determine if damage has occurred to buildings or other structures.

110.13.5 No building, other-structure, assembly, or part thereof, which was damaged, or collapsed, out of plumb, or line <u>alignment</u> shall be repaired, or altered, or otherwise returned to its original position without inspection and approval by the Building Official.

110.13.6 Physical damage occurring to meter troughs, risers and masts, weather heads, and associated electrical equipment on the exterior portion of residential structures shall be repaired by a qualified electrical contractor. Upon completion of said repairs:

110.13.6.1 Contractor shall tag the completed work with appropriate identification, including customer name, customer address, a brief description of <u>the</u> repair, contractor name, contractor license number, and contractor phone number for Florida Power & Light Company (FPL) and inspecting authorities. Tag_ and text shall be durable and weather resistant.

110.13.6.2 FPL may, upon acknowledging the tag, reconnect the electrical service without inspection by the inspecting authorities. FPL shall take due care to ensure safety before energizing the service.

110.13.6.3 Contractor shall obtain permits after the fact within thirty days of the occurrence.

110.13.6.4 Florida Power & Light Co <u>FPL</u> shall record and submit to individual inspecting authorities a list of electrical service reconnections and locations within thirty (30) days after the emergency or crisis conditions have subsided.

110.13.7 Storm Shutter Placement during Hurricane Season. After the termination of such periods of time that had been designated by the National Weather Service as being a hurricane watch or warning, hurricane protective devices installed on occupied buildings <u>that which</u> impede required egress or required light and ventilation shall be removed within fifteen (15) days.

110.14 Period of <u>a</u> **Declared Disaster.** During periods of a state of emergency or disaster as declared by the Governor, building owners and/or their designated representatives may institute temporary repairs to their property in order to restore the impermeability to the building envelope and/or perform any service required to make the structure safe, secure and minimize further damage. Such repairs shall be temporary in nature and may be undertaken without repair permits and inspections by the local building department as long as the damaged

building components and their respective attachments are not permanently concealed. Prior to the permanent repair/reconstruction being commenced, a permit shall be obtained per Section 105, or a demolition permit shall be obtained by a licensed demolition contractor pursuant to Section 105.18 of this Code. All work performed prior to obtaining a permit shall comply with the FBC or shall be replaced by permitted work. In order to comply with the FBC, and with the approval of the Building Official, the property owner may retain the services of a Special Building Inspector as described in, complying with all the requirements of Section 110.10.

110.14.1 Inspection requests. During periods of emergency or disaster, as declared by the governor, the time frame for performing requested inspections can be extended by the Building Official as personnel availability allows.

110.14.2 Approval required. During periods of emergency or disaster, as declared by the governor, inspections performed via electronic or photographic media can be acceptable on a case-by-case basis as determined by the Building Official.

110.14.3 Inspection records. During periods of emergency or disaster, as declared by the governor, electronic records of inspection results can be acceptable on a case-by-case basis, as determined by the Building Official.

110.14.4 Special inspections. During the emergency or disaster period, as declared by the governor, the Building Official may accept special inspection reports as outlined in Section 110.11, Special Inspector, for structural, electrical, mechanical, and plumbing inspections portions, including <u>those</u> performed by qualified engineers or architects for electrical, mechanical and plumbing inspections. During periods of emergency or disaster, as declared by the governor, inspections performed via electronic or photographic media can be acceptable on a case-by-case basis as determined by the Building Official.

110.14.5 Reroofing Inspections. During the emergency or disaster period, as declared by the Governor, the Building Official may, at their option, allow an architect or engineer or their duly authorized representative to perform required re-roofing inspections. The architect or engineer shall submit sealed inspection reports to the Building Official. During periods of emergency or disaster, as declared by the governor, inspections performed via electronic or photographic media can be acceptable on a case-by-case <u>base_basis</u> as determined by the Building Official.

110.14.6 Damage assessments. When conducting emergency damage assessments, the Building Official shall complete the Broward County Emergency Management Division, Unsafe Structures Reporting Form. The reports can be faxed, emailed, or, if necessary, telephoned into the numbers prescribed on the form within forty-eight (48) hours of a building being posted as unsafe, and a secondary report shall be submitted when the building is deemed safe, also within forty-eight (48) hours. The reporting form will be approved by both the Emergency Management Division and BORA.

110.14.7 The protocol for Sections 110.14 1 through 110.14.6 applies during a state of emergency or disaster as declared by the governor of the State of Florida.

110.14.8 Inspections and records of inspections required by Section 110.3 and as set forth in Sections 110.6, 110.9, and 110.14.2 through 110.14.4 can be acceptable on a case-by-case <u>base basis</u> as determined by the Building Official.

110.14.9 Suspension of certification requirements. See Section 113.11.7

110.15 Building Safety Inspection Program.

110.15.1 BORA has established a building safety inspection program for buildings and structures that are <u>25</u> years of age or older. (or 25 years of age or older for condominium or cooperative buildings that are three (3) stories or more in height and are within three (3) miles of the coastline}

110.15.2 BORA, by written policy, shall establish the guidelines, <u>rules</u>, and criteria which <u>that</u> shall be the minimum requirements for the Building Safety Inspection Program and are contained in BORA Policy #05-05, which by reference is made part of this Code.

110.15.3 The Building Official shall enforce the Building Safety Inspection Program.

110.15.4 The following are **Exempt** from this program:

- 1. US Government buildings,
- 2. State of Florida buildings,
- 3. Buildings built on Indian Reservations, sovereign tribal lands,
- 4. School buildings under the jurisdiction of the Broward County School Board,
- 5. One- and Two-Family Dwellings,
- 6. Fee simple Townhouses as defined in the Florida Building Code,
- 7. Minor structures, defined as buildings or structures in any occupancy group having a gross floor area <u>of</u> less than three thousand five hundred (3,500) square feet
- 8. Railroads and ancillary facilities associated with the railroad

110.15.5 Subsequent building safety inspections shall be required at ten (10) year intervals from the required inspection date, regardless of when the inspection report for the building or structure is finalized or filed.

110 15 6 When the Building Safety Inspection Program was first implemented, in order to clear the backlog of buildings, implementation of the program proceeded as follows:

- 40 year or older buildings of eleven thousand (11,000) square feet or more compliance in calendar year 2006
- 2 40 year or older buildings seven thousand (7,000) square feet or more compliance no later than calendar year 2007
- 3 40 year or older building five thousand five hundred (5,500) square feet or more compliance no later than calendar year 2008
- 4 40 year or older buildings four thousand six hundred fifty (4,650) square feet or more compliance no later than calendar year 2009
- 5 40 year or older buildings three thousand eight hundred (3,800) square feet or more compliance no later than calendar year 2010
- 6 40 year or older buildings three thousand five hundred (3,500) square feet or more compliance no later than calendar year 2011

(Amend of 3-11-21(3), eff 3-22-21; Amend of 5-12-22, eff 5-23-22; Amend of 9-8-22(5), eff 9-19-22)

Section 111 Certificates of Occupancy and Completion

111.1 Certificate of Occupancy.

111.1.1 Use and Occupancy No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or nature or use or portion thereof shall be made until the Building Official has issued a Certificate of Occupancy therefor as provided herein. Said certificate shall not be issued until all requirements of the FBC and the FFPC have been inspected for compliance with the technical codes and other applicable laws and ordinances and released by the Building Official. Issuance of a Certificate of Occupancy shall not be construed as an approval of a violation of the provisions of this Code or of other ordinances of the jurisdiction. See Florida Statute 553.791 (13) for additional requirements for the issuance of a Certificate of Occupancy or Certificate of Completion.

Exception: Certificates of Occupancy are not required for work exempt from permits under Section 105.2

111.2 Certificate Issued. After the Building Official or duly authorized representative inspects the building or structure and does not find violations of the provisions of this Code or other laws that are enforced by the AHJ, the Building Official shall issue a Certificate of Occupancy that contains the following:

- 1. The building permit number.
- 2. The address of the structure.
- 3. The name and address of the owner.
- 4. A description of that portion of the structure for which the certificate is issued.
- 5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this Code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.
- 6. For buildings and structures in flood hazard areas, a statement that documentation of the asbuilt lowest floor elevation has been provided and is retained in the records of the authority having jurisdiction.
- 7. The name of the Building Official.
- 8. The edition of the code under which the permit was issued.
- 9. The use and occupancy, in accordance with the provisions of FBC, Building, Chapter 3.
- 10. The type of construction as defined in FBC, Building, Chapter 6.
- 11. The design occupant load and the number of persons for each floor, and the allowable load live or dead per square foot for each floor in accordance with the provisions of this Code.
- 12. If an automatic sprinkler system is provided, whether the sprinkler system is required.
- 13. Any special stipulations and conditions of the building permit.

111.3 Temporary/Partial Certificate of Occupancy.

111.3.1 The Building Official is authorized to issue a Temporary Certificate of Occupancy before the completion of the entire work covered by the permit, provided that such portion or portions shall be occupied safely, providing the building to be occupied has, to the satisfaction of the Building Official, met all the code provisions related to sanitary facilities, electric service, means of egress, fire resistive separation, structural adequacy, and life safety requirements as found in the FBC, Fire Protection Provisions of this Code and <u>the</u> FFPC for the use of a building. The Building Official shall set a time period during which the temporary Certificate of Occupancy is valid.

Exception: Two-way radio communication enhancement systems. For buildings not exempted by Florida Statute 633.202 (18)(h) from meeting the minimum radio signal strength requirements or having a radio signal strength assessment for public safety agency communications, see Florida Statute. 553.79(23).

111.3.2 Partial Certificate of Occupancy. A Partial Certificate of Occupancy may be issued by the Building Official for portions of a building, providing such portions comply with the requirements for a Certificate of Occupancy and the portions of the building are isolated from the portions in which construction activities are continuous. Areas not included in the Partial Certificate of Occupancy shall not be occupied until such areas are completed satisfactorily for issuance of a Certificate of Occupancy. Each area shall not be occupied until inspected and approved and additional Partial Certificates of Occupancy are issued. The final Certificate of Occupancy shall not be issued for the entire building until the requirements of Section 111.1 are complied with.

111.4 Revocation. The Building Official is authorized to serve a notice of the suspension or revocation of the Certificate of Occupancy or Completion, issued under the provisions of this Code, in writing, on the person or persons using or causing the use of a building or structure, wherever the certificate is issued in error, or <u>based</u> on the basis of incorrect information supplied, or where it is determined that the building or structure or portion

thereof <u>violates</u> in violation of any ordinance, regulation, any of the provisions of this Code or Fire Protection Provisions of this Code and <u>the</u> FFPC. After the receipt of such notice or order, the building or portion thereof shall be brought into compliance with this Code within a reasonable time, as determined by the Building Official.

111.5 Certificate of Completion. A Certificate of Completion is proof that a structure or system is complete and, for certain types of permits, is released for use and may be connected to a utility system. This certificate does not grant authority to occupy or connect a building, such as a shell building, prior to the issuance of a Certificate of Occupancy.

Section 112. Service Utilities.

112.1 Connection of service utilities. A person shall not make connections from a utility source of energy, fuel, or power to any building or system that is regulated by this Code and for which a permit is required until a Certificate of Occupancy or Completion is issued or released by the Building Official or their duly authorized discipline Chief.

Exception: Temporary connections per Section 112.2

112.2 Temporary connection. The Building Official or their duly authorized discipline chief may authorize the temporary connection of the building or system to the utility source of energy, fuel, or power for the purpose of testing building service systems or for use under a Temporary Certificate of Occupancy.

112.2.1 Energizing Systems. It shall be unlawful for any person, firm, or corporation to energize any wiring system or portion thereof until the electrical work has been inspected and approved and the responsible person, firm, or corporation is authorized by the appropriate governmental jurisdiction to energize the system.

112.3 Authority to disconnect service utilities. The Building Official or their duly authorized discipline chief or Fire Chief shall have the authority to authorize disconnection of utility service to the building, structure, or system regulated by the reference codes and standards set forth in Section 101.4 in case of <u>an</u> emergency where necessary to eliminate an immediate hazard to life or property or where such utility connections have been made without the approval required by Section 112.1 or 112.2. The Building Official or Chief Electrical Inspector shall notify the serving utility and, whenever possible, the owner and occupant of the building, structure, or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner or occupant of the building, structure, or service system shall be notified in writing as soon as practical thereafter.

112.4 Sewer connections. No person shall make any connection to a public or private sewer, or appurtenance thereof, without the authorization of the Building Official or Chief Plumbing Inspector.

Section 113. Board of Rules and Appeals.

113.1 General. In order to determine the suitability of alternate materials and types of construction to provide for reasonable interpretation of the provisions of this Code and to assist in the control of the construction of buildings and structures, there is hereby created BORA, appointed by the appointing authority, consisting of thirteen (13) members and nine (9) alternates who are qualified by training and experience to pass on matters pertaining to building construction.

113.1.1 Secretary to the Board (Administrative Director) and employees. BORA is authorized to hire a fulltime secretary. Office space, office equipment, and such other material, equipment, and services required to operate such office shall be furnished by the Broward County Commissioners. The Board may hire other personnel as they are deemed necessary by said Board with permission from the Broward County Commissioners. All money collected by the Board as fees shall be retained by the Broward County Commission to offset operating costs of such office.

113.2. Staff. BORA shall maintain a staff to coordinate the enforcement of this Code and <u>the</u> FFPC and shall be called the Code Compliance Department. The department shall consist of the administrative director and Chief Code Compliance Officers (electrical, fire prevention, mechanical, plumbing, energy conservation, and structural). Chief Code Compliance Officers shall be certifiable as Chiefs in their respective disciplines, and the Chief Fire Prevention Code Compliance Officer shall be certifiable as Fire Marshal/Fire Code Official. The Chief Code

Compliance Officers shall have the authority to make inspections and review plans in their disciplines. They shall and shall be responsible to see for seeing all Building and Fire Departments are uniformly enforcing this Code that this Code is being uniformly enforced by all Building and Fire Departments in all cities and the unincorporated areas in Broward County. The code compliance staff shall work directly under the Administrative Director, who will be directed by the full BORA.

113.3 Membership.

113.3.1 The Membership of BORA is as stated in the current County Charter.

113.3.1.1 A quorum of the Board of Rules and Appeals shall consist of a majority of the total membership of the Board of Rules and Appeals, and a majority vote of those members voting on a measure shall be necessary for the Board of Rules and Appeals affirmative action. With a total membership of 13 members, <u>a</u> quorum is 7.

113.3.1.2 All appointments shall be for a term of three (3) years. All members and alternates shall continue in office until their successors are duly appointed.

113.3.1.3 The Board shall adopt rules of procedure to seat alternates in the event all board members are not present for a scheduled meeting of the Board.

113.4 The Broward County Commission or Broward County League of Cities, whichever is the appointing authority, may remove, either by its own action or upon recommendation of the majority of BORA, any members or alternate for misconduct, incompetence, or neglect of duty. However, any member or alternate so removed may, within ten (10) days, request a public hearing before the public body who attempts to remove the member or alternate, and the member or alternate shall receive such hearing before such removal shall be final.

113.5 Any vacancies occurring on BORA shall be filled for the remainder of the former member's or alternate's term of office by appointment of the Broward County Commission when the former member or alternate was an appointee of the Commission or by the Broward League of Cities when the former member or alternate was an appointee of the League.

113.6 It shall be the function of BORA, created by this Charter, to exercise the powers, duties, responsibilities, and obligations as set forth and established in Chapter 71-575, Laws of Florida, Special Acts of 1971, as amended by Chapters 72-482 and 72-485, Laws of Florida, Special Acts of 1972; Chapters 73-437, and 74-448, Laws of Florida, Special Acts of 1974; the Florida Building Code and the SFBC as enacted and amended by Chapter 71-575, as amended.

113.7 Compensation. Members shall serve without compensation but shall be entitled to reimbursement for necessary expenses in <u>the</u> performance of their official duties upon approval of the appointing authority.

113.8. Meetings.

113.8.1 Meetings of BORA shall be held at the call of the Chairperson and at such other times as the Board may determine.

113.8.2 The Board shall select one (1) of its members to serve as Chairman and one (1) to serve as Vice-Chairman to act in the absence of the Chairman. A detailed record of all proceedings shall be kept on file in the office of the <u>Secretary</u>. The Board shall establish rules and regulations for its own procedure.

113.8.3 Hearings.

113.8.3.1 All hearings shall be open to the public, and any person whose interest may be affected by the matter on appeal shall be given an opportunity to be heard.

113.8.3.2 The hearing shall be informal and need not be conducted according to technical rules relating to evidence and witnesses.

113.8.3.3 Any relevant evidence shall be admitted if it is the sort of evidence on which responsible persons are accustomed to relying in the conduct of serious affairs, regardless of the existence of

any common law or statutory rules which might make improper the admission of such evidence over objection in civil actions.

113.8.3.4 Hearsay evidence may be used for the purpose of supplementing or explaining any direct evidence but shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions.

113.8.3.5 The rules of privilege shall be effective to the same extent that they are now or hereafter may be recognized in civil actions, and irrelevant and unduly repetitious evidence shall be excluded.

113.8.4 Conflict of Interest. No member of the Board shall sit as a voting member in any hearing involving any question in which he or she has they have a personal or financial interest and shall be sequestered during the deliberation and vote of the Board.

113.8.5 Quorum. A quorum of the Board of Rules and Appeals shall consist of a majority of the total membership of the Board of Rules and Appeals, and a majority vote of those members voting on a measure shall be necessary for the Board of Rules and Appeals affirmative action. With a total membership of 13 members, <u>a</u> quorum is 7.

113.8.6 Written notice of the Board decision shall be furnished to the appellant when requested.

113.8.7 When an appeal of a decision of a Building Official/Fire Code Official or their subordinate has been filed with BORA that Building Official, /Fire Code Official or their designated representative shall be responsible to (1, 2, 3, or all):

113.8.7.1 Respond to BORA in writing, defending their decision or interpretation within five (5) (working) days.

113.8.7.2 Attend the Board meeting when the appeal is on the agenda.

113.8.7.3 Take immediate action in accordance with <u>the</u> decision of BORA. Immediate action shall be that a Certificate of Completion, Temporary Occupancy, or a Certificate of Occupancy shall not be issued until compliance with the decision of the Board has been completed.

Exception: For fire-related appeals only, see the FFPC.

113.9 Duties

113.9.1 Appeal from decision of Building Official, Assistant Building Official, or Chief Inspector. The Board shall hear all appeals from the decisions of the Building Official, Assistant Building Official, or Chief Inspector wherein such decision is on matters regulated by this Code from any person, aggrieved thereby, and specifically as set forth in Section 104 32. Alternate materials, designs, and methods of construction and equipment application for appeal shall be in writing and addressed to the Secretary of the Board.

113.9.2 Interpret the Code at the request of the Building Official, Assistant Building Official, Chief Inspector, Fire Code Official, or the staff of BORA staff. At the request of the Building Official, Assistant Building Official, Chief Inspector, Fire Code Official, or the staff of BORA staff, the Board shall issue final interpretations or opinions on any matter pertaining to this Code and the FFPC.

113.9.3 Investigate Enforcement. BORA, upon the request of any person charged with the responsibility of enforcing the <u>c</u>Gode, or upon its own initiative, shall conduct an investigation into enforcement of this Code and shall have the power to suspend or revoke any permits issued thereunder after a hearing at which interested persons may appear and be heard, and evidence indicates that the best interests of the public are served by such action except in regard to the qualifications of the applicant for <u>the</u> permit.

113.9.4 Report and Recommendations. BORA shall make any desired amendments or revisions to the code.

113.9.4.1 BORA may recommend to the elected Officials of the jurisdictions adopting these Code ordinances prescribing the fee for examinations, permits, inspections of boilers and elevators, the testing of materials, and all other such work required by this Code.

113.9.4.2 BORA shall make any desired amendments or revisions to the Code.

113.10 Cost of appealing to the Board. Reserved.

113.11 Procedure for Appeals. Any person aggrieved by anyone enforcing this Code who desires to appeal to this Board shall first contact the Secretary of the Board for a date for his the appeal to be heard. Notice of Appeal shall be sent to the governing body of the jurisdiction wherein the dispute arose, and said notice shall contain the following:

113.11.1 The time and date of the hearing.

113.11.2 A clear and concise statement of the subject to be decided on appeal sufficient to put the said governing body on notice so that they may defend their interpretation of this Code.

113.11.3 The notice shall be sent by certified mail with <u>a</u> return receipt and by facsimile or electronic media, with a receipt showing delivery by noon or by personal delivery by noon at least nine (9) days prior to the hearing. The Board in, <u>at</u> its discretion, may require a specific form for this notice. For an appeal to be valid, a written rejection from the denial AHJ shall be included. with the appeal. The denial authority shall respond in writing to the appellant.

113.11.4 The appellant shall also file a copy of their notice of appeal with the secretary of the board at the same time that they notified the governing body and said secretary shall deliver to each member of the Board, a copy of the notice, with sufficient time before the hearing for the Board members to study the dispute. Procedure for appeals may be changed from time to time by the Board if they deem it necessary for the benefit of the public. Whenever feasible possible, the Chief Inspector involved in the appeal shall present the jurisdiction's position and justifications for the appeal at the Board meeting.

113.11.5 Notwithstanding, and in addition to, the jurisdiction of BORA created by Chapter 71-575, Laws of Florida, Building Code as applicable to Broward County may be enforced by injunctive proceedings or other appropriate legal proceedings in the appropriate court having jurisdiction thereof, upon petition or complaint filed by BORA, which is hereby granted the power to sue and be sued, or by any aggrieved person, any interested citizen, citizen's association, corporation or other business entity if any elected or appointed officials named in Section 3 of Chapter 71-575 or any Building Official fails or refuses to comply with said code.

113.11.6 Certification of Building Official, Assistant Building Official/Code Administrator, Chief Electrical Inspector, Electrical Plans Examiner, Electrical Inspector, Chief Mechanical Inspector, Mechanical Plans Examiner, Mechanical Inspector, Chief Plumbing Inspector, Plumbing Plans Examiner, Plumbing Inspector, Roofing Inspector, Chief Structural Inspector, Structural Plans Examiner, Structural Inspector, Fire Marshal/Fire Code Official, <u>Assistant Fire Marshal</u>, Fire Plans Examiner, and Fire Inspector. BORA shall have the duty, as set forth in Section 104 of this Code, to accept and review certification applications and to certify or refuse to certify applicants for Building Official, Assistant Building Official, Chief Electrical Inspector, Electrical Plans Examiner, Electrical Inspector, Chief Mechanical Inspector, Mechanical Plans Examiner, Mechanical Inspector, Chief Plumbing Inspector, Plumbing Plans Examiner, Plumbing Inspector, Roofing Inspector, Chief Structural Inspector, Structural Plans Examiner, Structural Inspector, Fire Marshal, Assistant Fire Marshal/Fire Code Official, Fire Plans Examiner, and Fire Inspector to be employed by any inspection authority regulated by this Code.

113.11.7 Suspension of Certification Requirements. During an emergency period proclaimed by the Governor, the Chairperson of BORA or designee may temporarily suspend the Broward County certification requirements for all individuals certified by the State of Florida, Department of Business and Professional Regulation, BCAIB as building code administrators, plans examiners, and inspectors. The length of time that this suspension will be in effect will be for an initial period not to exceed ninety (90) calendar days. BORA may extend this period if conditions warrant. This temporary suspension of the certification requirement shall not apply to an individual being hired on a permanent basis.

113.12 Powers.

113.12.1 BORA may interpret the provisions of this Code to cover a special case if it appears that the provisions of this Code do not definitely cover the <u>question</u> point raised or that the intent of this Code is not clear, or that ambiguity exists in the wording, but it shall have no authority to grant variances where the code is clear and specific.

113.12.2 The use of alternate materials or types of construction not clearly comparable with the materials and types of construction specified in this Code may not be granted by BORA, but the Board, if favorable to such use, may amend this Code to make such use lawful.

113.12.3 The Board shall have the power to affirm, modify, or reverse the decision of the Building Official wherein such decision is on matters regulated by this Code.

113.12.4 BORA shall have the powers as specified in Section 116 <u>of this Code</u>, "Unsafe Structures and Equipment."

113.12.5 BORA shall have the power to suspend or revoke permits, as specified in Section 105.6 of this Code.

113.12.6 When it is deemed necessary by the Board, it may request experienced and technical advice on any specific subject or subjects from any qualified person or persons, and such request may be for attendance at board meetings or for written analysis of the specific problem. BORA may establish panels of industry, either standing or temporary, for technical analysis of specific subjects.

113.13 Reciprocity.

113.13.1 BORA shall have the authority to meet with similarly constituted and authorized boards for the purposes of discussion, decision, and similar matters of area-wide industry concern.

113.13.2 Decisions of the majority of all members at joint meetings, as referred to herein, shall not be binding on BORA. The decisions of joint meetings with other boards may be accepted or rejected or accepted with modifications.

113.14 Review of Board Decisions.

113.14.1 Any person aggrieved by a decision of BORA, whether or not a previous party to the decision, may file an appeal pursuant to <u>Florida Statutes</u>, Section 553.775(3)(c), Florida Statutes. Appeals of decisions within the review jurisdiction of the Florida Building Commission shall be to the Florida Building Code in the manner prescribed in the referenced statute. Review of other decisions of BORA shall be as provided in the Florida Rules of Appellate Procedure for judicial review of administrative action.

113.15 Amendments to Code.

113.15.1 The provisions of the SFBC, Broward Local Amendments to <u>the</u> FFPC, and the FBC as applicable to Broward County shall be amended only by BORA and only to the extent and in the manner specified in this Code and <u>Florida Statutes</u>, in Section 553.73(4), Florida Statutes. For fire code-related amendments, see <u>the</u> FFPC and <u>Florida Statutes</u>, Section 633.202, Florida Statutes.

113.15.2 Neither the Broward County Board of County Commissioners nor any municipality within Broward County may enact any ordinance in conflict with Chapter 71-575, as amended, the Florida Building Code, or the SFBC.

Section 114 Violations

114.1 Violations and Penalties. Any person, firm, or corporation who violates a provision of this Code or <u>the</u> FFPC or fails to comply therewith or with any of the requirements thereof shall be guilty of a misdemeanor. Each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Code or <u>the</u> FFPC is committed or continued, and upon conviction of any such violation, such person shall be punishable by a fine of not less than fifty dollars (\$50.00) nor more than five hundred dollars (\$500.00), or by imprisonment not exceeding sixty (60) days, or by both such fine and imprisonment.

Section 115 Stop Work Order

115.1 Authority. Whenever the Building Official or Fire Chief finds any work regulated by this Code being performed in a manner either contrary to the provisions of this Code or dangerous or unsafe, the Building Official or Fire Chief is authorized to issue a stop work order. See also Sections 105.4, 105.6, 111.4, and 112.3 <u>of this Code</u>.

115.2 Issuance. The stop-work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work, or posted on the job site in a conspicuous location. Upon issuance of a stop work order, the cited work shall immediately cease by such persons. The stop-work order shall state the reason for the order and the work that is required to correct a violation or unsafe condition.

115.3 Unlawful continuance. Any person who continues any work after <u>being having been</u> served with a stop work order shall be subject to penalties as prescribed by law.

Exception: Work required to correct a violation or unsafe condition.

Section 116 Unsafe Structures and Equipment

116.1 General.

116.1.1 Buildings or structures that, in the opinion of the Building Official, are, or hereafter shall become unsafe, unsanitary, or deficient in adequate facilities for means of egress, or which constitute a fire or windstorm hazard, or illegal or improper use, occupancy or maintenance, or which do not comply with the provisions of the applicable. Minimum Housing Code, or which have been substantially damaged by the elements, acts of God, fire, explosion, or otherwise shall be deemed unsafe buildings, and a permit shall be obtained to demolish the structure or bring the building to comply with the applicable codes.

116.1.2 Incomplete buildings or structures commenced without a permit, or the permit for which has expired, or completed buildings or structures commenced without a permit, or the permit for which expired prior to completion and no Certificate of Occupancy has been issued, shall be presumed and deemed unsafe.

116.1.3 Unsafe buildings or structures shall be demolished and removed from the premises concerned or made safe, sanitary, and secure in a manner required by the Building Official and as provided in this Code, provided that where replacement, repair, alteration, or demolition is required on buildings or structures within the purview of the applicable Minimum Housing Code, the provisions of such <u>c</u>ode shall be complied with and shall control.

116.1.4 A permit shall be issued for the demolition of any unsafe building or structure in accordance with Section 105.18 of this Code.

116.2 Criteria. When anyone (1) of the following conditions exist, a building may be deemed unsafe or a fire hazard:

116.2.1 Physical Criteria.

116.2.1.1 A Building shall be deemed a fire hazard or unsafe when:

116.2.1.1.1 It is vacant, unguarded, and open at doors or windows.

116.2.1.1.2 There is an unwarranted accumulation of dust, debris, or other combustible material therein.

116.2.1.1.3 The building condition creates hazards with respect to means of egress and fire protection as provided herein for the particular occupancy.

116.2.1.2 A building shall be deemed unsafe when:

116.2.1.2.1 There is a failure, hanging loose, or loosening of any siding, block, brick, or other building material.

116.2.1.2.2 There is a deterioration of the structure or structural parts.

116.2.1.2.3 The building is partially destroyed.

116.2.1.2.4 There is an unusual sagging or leaning out of plumb of the building or any parts of the building, and such effect is caused by deterioration or over-stressing.

116.2.1.2.5 The electrical or mechanical installations or systems create a hazardous condition in violation of this Code.

116.2.1.2.6 An unsanitary condition exists by reason of inadequate or malfunctioning sanitary facilities or waste disposal systems.

116.2.1.2.7 Swimming pools that contain stagnant water are deemed unsanitary and dangerous to human life and public welfare and shall be presumed and deemed unsafe.

116.2.1.2.8 By reason of use or occupancy, the area, height, type of construction, fire-resistivity, means of egress, electrical equipment, plumbing, air conditioning, or other features regulated by this Code that do not comply with this Code for the use and Group of Occupancy.

116.2.1.2.9 Any mobile home that is being modified in violation of the Department of Highway Safety and Motor Vehicles, Florida Administrative Code, <u>S</u>section 15C-2 0081 may be deemed unsafe or a fire hazard.

116.2.1.3 A Building, or part thereof, shall be presumed to be unsafe if:

116.2.1.3.1 The construction, installation of electrical, plumbing, or other equipment therein or thereon, or the partial construction or installation of equipment has been commenced or completed without a permit, therefore, having been obtained, or the permit, therefore, expired prior to completion and a Certificate of Occupancy issued.

116.2.1.3.2 By reason of illegal or improper use, occupancy, or maintenance does not comply with this Code or the <u>c</u>-code in effect at the time of construction or the applicable Minimum Housing Code.

116.2.2 Valuation Criteria.

116.2.2.1 If the cost of completion, alteration, repair, or replacement of an unsafe building or structure or part thereof exceeds fifty (50) percent of its value, such building shall be demolished and removed from the premises. If the cost of completion, alteration, repair, or replacement of an unsafe building or structure or part thereof does not exceed fifty (50) percent of such replacement cost, such building or structure may be repaired and made safe, as provided in the FBC, Existing Building.

116.2.2.2 If the cost of structural repair or structural replacement of an unsafe building or structure or part thereof exceeds thirty-three (33) percent of the structural value, such building or structure or part thereof shall be demolished and removed from the premises; and if the cost of such structural repairs does not exceed thirty-three (33) percent of such replacement cost, such building or structure or part thereof may be structurally repaired and made safe, as provided in FBC, Existing Building.

116.2.2.3 In order to determine the value of a building or structure and the cost of alterations, repairs, and replacement, the guides and standards provided in the FBC, Existing Buildings shall apply.

116.2.2.4 An Eexception to the above percentages may be recognized provided:

116.2.2.4.1 The owner of the property has the ways and means to complete the work.

116.2.2.4.2 All imminent danger has been removed from the site.

116.2.2.4.3 All applicable zoning regulations are met.

116.2.2.4.4 All applicable requirements of other departments and agencies are met.

116.2.2.4.5 Criteria noted in FBC, Existing Building are followed.

116.2.2.4.6 Any remaining portion of the structure to be used in rebuilding is certified as safe by an engineer or architect.

116.3 Inspection of Unsafe Buildings and Structures. The Building Official, on their own initiative or as a result of reports by others, shall examine or cause to be examined every building or structure appearing or reported to be unsafe, and if such is found to be an unsafe building or structure as defined in this Section, the Building Official shall post the property concerned and shall furnish the owner of such building or structure with written notice, the manner of posting and furnishing of written notice is provided hereinafter.

116.4 Posting. The Building Official shall post a signed notice in a conspicuous location on the building or structure which has been determined to be unsafe. The posted notice shall read substantially as follows:

"UNSAFE BUILDING" This building or structure is, in the opinion of the Building Official, unsafe, as defined in Section 116 of this Code.

This Building Shall Be Vacated - Shall Not Be Occupied. Action shall be taken by the owner as further prescribed by written notice previously served. This Notice Shall Not Be Removed Except By The Building Official, Date

116.5 Emergency Action.

116.5.1 When, in the opinion of the Building Official, there is actual or immediate danger of the failure or the collapse of a building or structure, or there is a health, windstorm, or fire hazard, they may order the occupants to vacate temporarily close for use or occupancy the rights-of-way thereto, sidewalks, streets or adjacent buildings or nearby area and institute such other temporary safeguards, including securing posting and demolition of the building or structure, as they may deem necessary under the circumstances, and may employ the necessary labor and materials to perform the required work as expeditiously as possible.

116.5.2 Costs incurred in the performance of such emergency work shall be paid by the appropriate governmental authority, and upon the recording in the public records of this County, a certificate executed by the Building Official certifying the amount so expended and why expended, the same shall become a lien against the property involved.

116.6 Notice of Violation. The Building Official shall give the owner of record of the premises concerned written notice by certified or registered mail addressed to such person's last known address. If proof of service by registered or certified mail is not completed by <u>a</u> signed return receipt, then a copy of the written notice shall be affixed to the structure concerned. <u>Such and such</u> procedure shall be deemed proper service, and the time for compliance, stipulated in the notice, shall be deemed to commence with the date such notice is so affixed. This written notice shall state the defects <u>that</u> which constitute a violation of this Section and shall prescribe the action to be taken to comply and the time within which compliance must be accomplished, such time to be ten (10) business days, subject to reasonable extension when requested in writing, for reasons which the Building Official considers justifying an extension of time. All such extensions of time shall be by written approval of the Building Official. In addition, this written notice will explain the right of <u>to</u> appeal the decision of the Building Official to the Unsafe Structures and Housing Appeals Board and also advise that unless there is compliance with the instructions in the Notice of Violation or an appeal is filed that, a public hearing before the Unsafe Structures and Housing Appeals Board and also advise that unless there is expired.

116.7 Recording of Notice of Violation.

116.7.1 If the owner of the property concerned has not complied with the requirements as stated in the Notice of Violation within the time stipulated or has not appealed the action of the Building Official as stated in the Notice of Violation within the time specified, the Building Official may file an appropriate instrument in the office of the Clerk of the Circuit Court, to be recorded in the public records of this County, indicating that violations of this Code, and of Section 116 thereof, exist upon the property involved.

116.7.2 The recording of such notice shall constitute constructive notice to all concerned, as well as to any subsequent purchasers, transferees, grantees, mortgages, lessees, and all persons claiming or acquiring <u>an</u> interest in said property.

116.7.3 When the violation specified in the Notice of Violation has been corrected, the Building Official shall file for record a certificate certifying that the violation has been corrected upon being paid for the filing fees incurred.

116.8 Appeal and Review. The owner or anyone having an interest in a building or structure <u>that</u> which has been determined to be unsafe and concerning which a Notice of Violation has been served by the Building Official may appeal the decision of the Building Official as stated in the Notice of Violation, to the Unsafe Structures and Housing Appeals Board if such appeal is filed prior to the expiration of the time allowed for compliance specified in such notice; provided, in no event shall appeal period be less than ten (10) business days. Such appeal shall be in writing, addressed to the secretary of the Unsafe Structures and Housing Appeals Board, and shall be in the form of a certified statement stating the reasons for such an appeal and stating wherein they consider the Building Official to be in error. Upon receipt of the appeal, the Secretary of the Board will proceed to notify all parties in interest as to the time and place the Unsafe Structures and Housing Appeals Board shall conduct a public hearing on the matter. The procedure for the serving of and the form of notice is provided hereinafter.

116.9 Notice of Public Hearing. If the owner or other parties having an interest do not comply with the terms of the Notice of Violation and do not file an appeal within the time stipulated, the Building Official shall then apply for a public hearing to be conducted by the Unsafe Structures and Housing Appeals Board. The and Secretary of the Unsafe Structures and Housing Appeals Board shall notify all parties in <u>the</u> interest of the time and place of such public hearing on the matter. The procedure for the serving and the form of notice shall be the same as in the case where an appeal has been filed by the owner or other <u>interested</u> parties. in interest, and such procedure and form of notice shall be as set forth hereinafter.

116.9.1 When an appeal has been properly filed, or when the public hearing is initiated by the Building Official, as provided herein, the Secretary of the Unsafe Structures and Housing Appeals Board shall issue a notice in the Board's name, requiring the owner of record and all parties having an interest to appear before the Board in person or by an attorney at the time set forth in such notice, but not earlier than ten (10) days after service thereof, and show cause why the decision of the Building Official should not be carried out.

116.9.2 As many alias and pluries notices may be issued as may be necessary.

116.9.3 Service of such notices shall be certified or registered mail to the last known address of the party being served if known; however, failure to receive such notice shall not invalidate the same as such notice shall also be perfected by posting such notice on the property and by publishing a copy thereof in a newspaper published in this County, such publication to be for two (2) times one (1) week apart.

116.9.4 The time for appearing and showing cause as aforesaid and a description of the property shall be as set forth in such published notice, provided such time shall not be less than ten (10) days after the last publication thereof.

116.9.5 Any person or party who shall not appear and show cause as aforesaid shall be as fully bound by proceedings taken as if they had appeared and shown cause.

116.10 Public Hearing

116.10.1 On the day established in the notice of public hearing, the Board shall review all pertinent evidence and hear all testimony from the Building Official, the owner, and other parties in interest and their respective witnesses.

116.10.2 The Board may modify, rescind, or uphold the decision of the Building Official as recited in the Notice of Violation and may order the owner or persons responsible for the building or structure to vacate or cause to be vacated <u>immediately</u> forthwith, to make repairs and to take necessary action to secure the building, or to demolish the building or structure and remove the salvage, contents debris, and abandoned property from the premises, all within the time stipulated in the order by the Board.

116.10.3 Such order shall be entered in the minute book of the Board within three (3) days after such public hearing, and a copy of such order shall be forwarded to the owner and all parties in interest by registered or certified mail and a copy thereof posted on the premises.

116.10.4 If the owner or those responsible shall fail to comply with the order of the Board within the time stipulated therein, and such order is to repair or secure the building to make <u>it</u> safe then. The Building Official shall cause such building to be vacated if occupied and shall, through their employees or through a contractor making the lowest responsible bid, secure the building or structure.

116.10.5 If the order is to demolish the building or structure and to remove the salvage, contents, debris, and abandoned property from the premises, and the owner or those responsible shall have failed to comply with such order, then the Building Official may do so thereafter through their employees or through a contractor making the lowest responsible bid.

116.10.6 The Building Official may sell to the highest bidder or bidders for cash the salvage and the contents of such building or other structure so demolished which have not been removed by the owner of the land.

116.10.7 If no bids are received for such salvage or contents, the Building Official may destroy that for which no bids are received.

116.10.8 Advertisement calling for bids shall be published by the Building Official one (1) time in a newspaper published in the County.

116.11 Recovery of Cost.

116.11.1 The entire costs incurred pursuant to Section 116.5 to Section 116.10 of this Code shall be paid by the owner or occupant of the premises or by the person who caused or maintained the violation.

116.11.2 The Building Official shall file among their records an affidavit stating with fairness and accuracy the items of expense and the date of execution of actions authorized by Section 116.5 or Section 116.10 of this Code.

116.11.3 The enforcing agency may institute a suit to recover such expenses against any liable person or may cause such expenses to be charged against the property as a lien or as a special assessment collectable according to established procedures.

116.11.4 Except for with respect to a lien imposed for expenses incurred in demolition, nothing herein shall be construed as placing a lien upon property that which supersedes the lien of any mortgage on such property executed and recorded prior to the existence of a lien authorized herein.

116.11.5 Any costs incurred pursuant to Section 116.5 or Section 116.10 of this Code which results in the demolition of unsafe buildings, structures, or equipment shall be a lien prior in dignity to all liens, excepting county tax liens and liens of equal dignity with county tax liens.

116.12 Review. Any person aggrieved by a decision of the Unsafe Structure Board may seek judicial review of that decision in accordance with the Florida Appellate Rules.

116.13 Unsafe Structures Board. The Unsafe Structures Board is hereby created, consisting of nine (9) members who shall be appointed by the appointing authority. All professional members of the Unsafe Structures Board should be registered and licensed in the state of Florida. In the event the appointing authority cannot find a properly suitably qualified resident of the area under its jurisdiction, it may, by a majority vote of its membership, appoint a qualified non-resident of the specific categories or professions required.

116.13.1 Qualification of Members. Members of the Board shall be permanent residents of the area under the jurisdiction of the appointing authority who possess outstanding reputations for civic activity, interest, integrity, responsibility, and business or professional ability. The composition and representative membership of the Board shall be as follows: an engineer, an architect, a <u>GCGeneral Contractor</u>, an electrical contractor, an attorney at law, a plumbing contractor, a real estate appraiser, a real estate property manager, and a citizen with experience and background in social problems.

116.13.2 Terms of Office. In order that the terms of office of all members of the Board shall not expire at the same time, the initial appointments to the Board shall be as follows:

1. Three (3) members for the term of two (2) years.

- 2. Three (3) members for the term of three (3) years.
- 3. Three (3) members for the term of four (4) years.

Thereafter, all appointments shall be for the term of three (3) years, provided that the term in all instances shall continue until a successor is appointed and qualified. Appointments to fill any vacancy on the board shall be for the remainder of the unexpired term, but failure to fill a vacancy shall not invalidate any action or decision of the Board.

116.13.3 Organization of the Board.

116 13 3 1 The members of the board shall elect a chairman and a vice chairman and such other officers as may be deemed necessary or desirable, who shall serve at the will of the Board. Election of officers shall be held at the first meeting after February 1, and such officers shall hold office for one (1) year.

116.13.3.2 Five (5) members of the Board shall constitute a quorum necessary to hold a meeting or take any action.

116.13.3.3 A majority vote of the Board membership present and voting at a duly constituted meeting shall be sufficient to overrule, modify, or affirm any action or decision of the Building Official or to take any other action within the scope of the power and duties of the Board.

116.13.3.4 Members shall serve without compensation but shall be entitled to reimbursement for necessary expenses incurred in the performance of their official duties upon approval by the legislative body adopting this Code.

116.13.3.5 No member of the Board shall sit as a voting member in any hearing on a matter in which they have a personal or financial interest.

116.13.3.6 The Building Official, or their designee, shall be the <u>Secretary</u> of the Board but shall have no vote.

116.13.3.7 The chairman or the secretary may call meetings of the board, and meetings may be called by written notice signed by three (3) members of the board.

116.13.3.8 Minutes and records shall be kept of all meetings of the Board, and all meetings shall be public.

116.13.3.9 All hearings shall be open to the public, and any person whose interest may be affected by the matter on appeal shall be given an opportunity to be heard in person or through their attorney.

116.13.3.10 Witnesses may be sworn and subpoenaed by the Board in a like manner as they are subpoenaed by the court or courts in the county in which this Code is adopted.

116.13.3.11 The hearings shall be informal and need not be conducted according to technical rules relating to evidence and witnesses. Any relevant evidence shall be admitted if it is the type of evidence on which responsible persons are accustomed to relying in the conduct of serious affairs, regardless of the existence of any common law or statutory rules which that might make improper the admission of such evidence over objection in civil actions.

116.13.3.12 Hearsay evidence may be used for the purpose of supplementing or explaining any direct evidence but shall not be sufficient itself to support a finding unless it would be admissible over objection in civil actions.

116.13.3.13 The rules of privilege shall be effective to the same extent that they are now, or hereafter may be, recognized in civil actions, and irrelevant and unduly repetitious evidence shall be excluded.

116.13.3.14 The Board may establish rules and regulations for its own procedure.

116.13.3.15 The Building Official shall provide adequate and competent clerical and administrative personnel and such technical or scientific personnel as may be reasonably required by the Board for the proper performance of its duties and shall maintain a record of all proceedings in the office of the

Building Official, and shall make available for copying any and all portions of the record of the proceeding and may certify the same as a true copy and make a reasonable charge therefore.

116.13.3.16 The Building Official shall provide a regular meeting place for the Board.

116.13.4 Duties and Powers of the Board. The board shall have the following duties, functions, powers, and responsibilities:

116.13.4.1 Hear and determine appeals from actions and decisions of the Building Official pursuant to the provisions thereof.

116.13.4.2 Hear and review the application of the Building Official for review of their action and where their decision, as indicated in a Notice of Violations, has not been complied with.

116.13.4.3 Affirm, modify, or reverse the decision of the Building Official upon appeal or on <u>the</u> application for review.

116.13.4.4 The Board, through its secretary, shall transmit the record with all exhibits, instruments, papers, and transcripts of its proceedings to the appointing authority in the event that authority shall consider the matter pursuant to applicable law in that regard made and provided.

116.13.4.5 Hear and determine appeals from actions and decisions of the enforcing agency pursuant to the provisions of the applicable Minimum Housing Code.

116.14 Duties of Legal Counsel. It shall be the duty of the attorney for the appointing authority, when so requested, to appear at all hearings before the Unsafe Structures Board and to represent and advise the Board.

116.15 Conflict of Interest. No Building Official, Board member, or employee charged with the enforcement of this law shall have any financial interest, directly or indirectly, in any repairs, corrections, construction, or demolition that which may be required, nor shall any Building Official, Board member, or employee give to anyone the location of any property or the names of owners thereof on which repairs, corrections or demolition have been ordered, except as otherwise directed hereinafter, until after the owners have been formally advised at which time such shall become a matter of public record.

116.16 Alternative Board. As an alternative to <u>the</u> use of its own Unsafe Structures Board, any municipality in Broward County may utilize, by means of an applicable inter-local agreement, the Unsafe Structures Board of Broward County or that of another municipality located within Broward County.

Section 117 Powers and Duties of the Floodplain Administrator: Delegation, Administration, Enforcement, and Variances

117.1 Scope. In accordance with <u>Florida Statute</u>, Section 553 73, Florida Statutes, the appointing <u>Aa</u>uthority of Broward County or the municipalities may delegate the authority to enforce the floodplain provisions of the Florida Building Code to a floodplain administrator, the Building Official, or any other appropriate agency or combination thereof.

117.2 Intent. A floodplain administrator, the Building Official, or any other appropriate agency or combination thereof, as designated, is authorized and directed to administer and enforce the flood provisions of the FBC and any adopted flood hazard ordinances. The designated authority shall delegate such duties and assignments as may be deemed necessary to carry out provisions of the FBC and any adopted flood hazard ordinances, to render interpretations consistent with the intent and purpose of these codes, and may establish policies and procedures in order to clarify the application of their provisions of the FBC. The variance procedures herein shall not apply to Section 3109 of the FBC, Building.

117.3 General. Where, in any specific case, different sections of the FBC or adopted flood hazard ordinances specify different materials, methods of construction, or other requirements, the most restrictive shall govern.

Section 118 Emergency Responders Communications Enhancement Systems (ERCES) <u>Two-</u> Way Radio Communication Enhancement Systems (TWRCES)

118.1 General

118.1.1 The Two-Way Radio Communication Enhancement Public Safety Signal Booster System <u>TWRCES</u> shall be installed as per NFPA 1-11 10, NFPA 70, and NFPA 72. Any such system installed on or after April 1, 2016, shall be adaptable for both 700/800 MHz P25 (Association of Public Safety Communication Officials, Project 25.)

118.1.2 The Authority Having Jurisdiction (AHJ), in Broward County, for the Two-Way Radio Communication Enhancement Public Safety Signal Systems <u>TWRCES</u> has two (2) permitting entities and multiple frequency licenses as follows:

- 1. The installation and wiring shall comply with the local municipality Building and Fire Department permitting process and shall be approved by the local and county FCC Licensee prior to installation.
- 2. The FCC Licensees are:
 - i. Broward County ORCAT Regional Emergency Services and Communication Office (RESCO)
 - ii. City of Coral Springs
 - iii. City of Fort Lauderdale
 - iv. City of Hollywood
 - v. City of Plantation

118.1.3 The AHJ shall determine if a new building or existing building shall require that a two-way radio communication enhanced public safety signal booster system <u>TWRCES</u> be installed to comply with NFPA 1-11 10 1. The building owner shall install a public safety signal booster <u>TWRCES</u> to meet this requirement if so directed.

118.1.4 Design. For new buildings, a temporary, partial, or Certificate of Occupancy shall not be issued until the AHJ <u>has approved the design and</u> determines that the building is in compliance with NFPA 1-11 10 1. It is recommended that the local Development Review Committee (DRC) notify the new building owner, architect, and engineers of this requirement in writing before the building is designed. At the time of BDA <u>TWRCES</u> permitting, a design package comprising of block level diagrams, materials submittals, coverage measurements, and predictions are is required. Sufficient and substantial engineering design and support information and data shall be submitted with the application. A sealed submittal from an engineer with verifiable training and experience in electrical engineering shall also be required.

118.1.5 To the extent authorized by law, Distributed Antenna Systems Integrators with Public Safety and Communication installation and repair experience, as a sub-contractor in association with qualified electrical contractors, F<u>f</u>ire A<u>a</u>larm contractors, or BDA <u>TWRCES</u> contractors, may install or repair Two Way Radio Communication Enhancement Systems <u>TWRCES</u>. Should the contractor of record fail to have radio communications installation and repair experience with Distributed Antenna Systems, the contractor of record shall sub-contract the installation or repair of the non-fire alarm function to a qualified company having knowledge of <u>R</u><u>r</u>adio communications installation and repair.

118 2 Permit Documentation

118 2 1 The following documentation shall be required for permitting an "Emergency Responders Communications Enhancement Systems (ERCES)." <u>TWRCES.</u>

1. City and County FCC Licensee shall approve the proposed installation of Two-Way Radio Communicating Enhanced Systems prior to installation in writing or by sealing documents submitted for review.

- 2. City and County written approval or sealed documents shall be provided to the local Fire Prevention Bureau office at the time of plan submittal and prior to plan review.
- 3. Plans shall comply with the current adopted editions of FBC 107, NFPA 1, 1 7, NFPA 70, <u>NFPA 1221</u>, and NFPA 72.
- 4. Sealed floor plans showing radio coverage for critical and general areas using industry-standard radio frequency computer-generated propagation modeling.
- 5. Schedule of signal strength as per NFPA 1221 or as agreed to by the Fire Code Official in consultation with the FCC licensee in writing.
- 6. Schedule of the system radio frequencies or band of frequencies.
- 7. Notation that the system is upgradeable for frequency band coverage changes, including, at a minimum, both 700/800 MHz.
- Plans shall show that the BDA <u>TWRCES</u> enclosure shall be painted <u>in</u> red<u>color</u>. A sign <u>or</u> weatherproof plaque affixed next to or stenciling stenciled on the enclosure shall be provided in high contrasting letters over a red background weatherproof plaque and shall include the following information:
 - a. Fire Department Signal Booster

b.Permit Number: _____

- c. Serviced by: Vendor name and telephone.
- 9. Elevator hoist-ways shall be deemed critical areas as stated in NFPA 1221 (2016) 9 6 7 4

118 3 System Notifications.

118.3.1 The AHJs for the FCC licensee and Broward County Office of Regional Communications and Technology (ORCAT) <u>RESCO</u> shall be notified in writing of the following events by the permit holder, the system vendor, and/or the building owner. The AHJ for the FCC Licensee shall approve the date and time and may request that the AHJ shall be present during the following events:

- 1 Initial system testing, with <u>the</u> date and time start and finish.
- 2 Periodic system testing, with <u>the</u> date and time start and finish.
- 3 System placed in operation with date and time.

118.4 Prior to the Initial Testing.

- 1. The vendor shall provide the system's settings prior to the initial system testing as accepted by the AHJ, FCC Licensee, and ORCAT <u>RESCO</u>. The AHJ may ask for additional information prior to testing.
- 2. The system shall remain "off the air" until the initial testing with AHJ, FCC <u>L</u>icensee, <u>ORCAT RESCO</u>, and the Fire Code Official are ready to begin and provide their approval.

118.5 Annual Test.

118.5.1 As part of the In addition to the annual fire alarm test, an annual test and report shall comply in compliance with NFPA 72 Chapter 14. The test shall be completed by a qualified company having the knowledge of RF installation with training and experience of in TWRCES two-way radio communication enhanced radio systems to ensure that the original installed system is still in compliance.

118.5.2 Annual Test Report. The annual test report shall be maintained with the fire alarm log book, and copies shall be submitted to the local AHJ and to <u>the</u> City and ORCAT <u>RESCO</u> for review. All problems found, with any corrective action(s), shall be noted in the test report, along with the name and license number of the <u>F</u>fire <u>Aa</u>larm <u>Contractor and sub-contractor <u>H</u>nspection <u>Company</u>.</u>

118.6 System Monitoring and Maintenance.

- 1. Any Public Safety Signal Booster system <u>TWRCES</u> installed on in a premises premise shall be tied into a fire alarm system for monitoring.
- 2. In case of failure, the building owner shall be notified within two (2) hours, and they shall <u>perform</u> cause to occur an inspection of the system. If a trouble condition is found, the system shall be repaired within forty-eight (48) hours of notification. If such repair proves to be longer in time or impossible to perform, a notification to the Fire Marshal shall be made indicating the failure of the system so that in case of emergency, the system shall not be relied upon by the First Responders.
- 3. Any system installed shall have a service-level agreement with a responsible company. Once the system is repaired, the service company shall notify both the building owner and the Fire Marshal.

The End of Broward County Administrative Provisions for the 202<u>3</u>0 FBC (<u>8</u>7th Edition)

Section 2



Broward County Board of Rules and Appeals

1 N. University Drive Suite, 3500B, Plantation, FL 33324 broward.org/CodeAppeals | 954-765-4500 | rulesboard@broward.org

TO: Members of the Broward County Board of Rules and Appeals

FROM: Administrative Director

DATE: November 9, 2023

RE: Second reading of the Broward County Board of Rules and Appeals Technical Amendments of the 8th Edition (2023) of the Florida Building Code (FBC)

The revisions were approved on first reading on October 12, 2023. It is now scheduled for a second reading and public hearing.

Respectfully Submitted,

Dr. Ana C. Barbosa



Broward County Board of Rules and Appeals

1 N. University Drive Suite, 3500B, Plantation, FL 33324 broward.org/CodeAppeals | 954-765-4500 | rulesboard@broward.org

TO:	Members of the Broward County Board of Rules and Appeals
FROM:	Administrative Director
DATE:	November 9, 2023
RE:	Second reading of the Broward County Board of Rules and Appeals Technical Amendments of the 8 th Edition (2023) of the Florida Building Code (FBC)

Recommendation

That BORA re-adopt, by vote, the Broward County Board of Rules and Appeals Technical Amendments 8th Edition (2023) of the Florida Building Code (FBC).

<u>Reasons</u>

The 8th Edition of the Florida Building Code will become effective on December 31, 2023. The staff has reviewed BORA's current Technical Amendments, revised the code references when needed, and made necessary changes. No significant changes have been made to the text of the amended sections. These sections were adopted and readopted for previous code editions.

Additional Information

Amended code sections:

- 1. FBC Building, Chapter 4, Sections 454.1.4.1, 454.1.4.1.1, 454.2.16, 454.2.16.1
- 2. FBC Plumbing, Chapter 3, Section [M]314.2.1 Chapter 6, Section 604.4, Table 604.4 Appendix F
- 3. FBC Residential, Chapter 29, Table P2903.2 Chapter 45, R4501.16, R4501.16.1
- 4. FBC Mechanical, Chapter 3, Section 307.2.1 Chapter 9, Sections 908.3.1, 908.8.1, 908.8.2, 908.8.3

These Technical Amendments will be effective on December 31, 2023.

Respectfully Submitted,

Ana C. Barbosa, DBA

2023 Florida Building Code, Building, 8th Edition

- Stricken through text are deletions from the Florida Building Code, Building, 8th Edition.
- <u>Underscored text</u> are additions to Florida Building Code, Building, 8th Edition.

Section 454.1.4 Electrical Systems

Section 454.1.4.1 Electrical

Electrical equipment wiring and installation, including the bonding and grounding of pool components, shall comply with Chapter 27 of the Florida Building Code, Building. Outlets supplying pool pump motors connected to single-phase 120-volt through 240-volt branch circuits, whether by receptacle or by direct connection, and outlets supplying other electrical equipment and underwater luminaires operating at voltages greater than the low voltage contact limit, connected to single-phase, 120-volt through 240-volt branch circuits, rated 15 or 20 amperes, whether by receptacle or by direct connection, shall be provided with ground-fault circuit interrupter protection for personnel.

Section 454.1.4.1.1 Maximum Voltage

The maximum voltage for each luminaire in any private swimming or bathing pool shall not exceed the Low Voltage Contact Limit, which is defined as a voltage not exceeding the following values:

(1) 15 volts (RMS) for sinusoidal alternating current.

(2) 21.2 volts peak for nonsinusoidal alternating current.

(3) 30 volts continuous, direct current.

(4) 12.4 volts peak for direct current that is interrupted at a rate of 10 to 200 Hertz. The maximum incandescent lamp size shall be 300 watts.

2023 Florida Building Code, Building, 8th Edition

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- <u>Underscored text</u> are additions to Florida Building Code, Building, 8th Edition.

Section 454.2.16 Electrical

Electrical equipment wiring and installation, including the bonding and grounding of pool components, shall comply with Chapter 27 of the Florida Building Code, Building. Outlets supplying pool pump motors connected to single-phase 120-volt through 240-volt branch circuits, whether by receptacle or by direct connection, and outlets supplying other electrical equipment and underwater luminaires operating at voltages greater than the low voltage contact limit, connected to single-phase, 120-volt through 240-volt branch circuits, rated 15 or 20 amperes, whether by receptacle or by direct connection, shall be provided with ground-fault circuit interrupter protection for personnel.

Section 454.2.16.1 Maximum Voltage

The maximum voltage for each luminaire in any private swimming or bathing pool shall not exceed the Low Voltage Contact Limit, which is defined as a voltage not exceeding the following values:

(1) 15 volts (RMS) for sinusoidal alternating current.

(2) 21.2 volts peak for nonsinusoidal alternating current.

(3) 30 volts continuous, direct current.

(4) 12.4 volts peak for direct current that is interrupted at a rate of 10 to 200 Hertz. The maximum incandescent lamp size shall be 300 watts.

Broward County Amendments to Chapter 3, Subsection 314 of the 2023 Florida Building Code, Plumbing, 8th Edition

- Stricken through text are deletions from the Florida Building Code, Plumbing, 8th Edition.
- <u>Underscored text</u> are additions to Florida Building Code, Plumbing, 8th Edition.

[M] 314.2.1 Condensate drainage collection, use or **disposal.** Condensate from all cooling coils and evaporators of equipment served by an onsite cooling tower in a building or structure wherein the aggregate cooling capacity of the equipment exceeds 65,000 Btu/hr shall be collected and conveyed from the drain pan outlet and discharged to the cooling tower. Where an on-site cooling tower is not installed the condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet and discharged to the cooling tower. Where an on-site cooling tower is not outlet to an *approved* place of disposal.

Exceptions:

1. <u>Condensate from cooling coils and evaporators is not required to be collected and conveyed</u> to an on-site cooling tower: provided 1.1 through 1.3 are met:

1.1 The equipment comprises 10% or less of the total capacity of the cooling tower system 1.2 The equipment is located in an isolated or remote area 1.3 The size of the equipment is 65,000 Btu/hr or less

2. <u>In existing buildings, condensate may be collected and conveyed to a cooling tower or discharged to an approved place of disposal.</u>

Broward County Amendments to Chapter 6, Subsection 604.4 of the 2023 Florida Building Code, Plumbing, 8th Edition

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- <u>Underscored text</u> are additions to Florida Building Code, Plumbing, 8th Edition.

SECTION 604 DESIGN OF BUILDING WATER DISTRIBUTION SYSTEM

604.4 Maximum flow and water consumption.

Exceptions:

6. All fixtures, fittings, and appliances with U.S. Environmental Agency WaterSense® (EPA) label.

TABLE 604.4 MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES, AND FIXTURE FITTINGS AND APPLIANCES

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY
Lavatory, private	2.2 <u>1.5</u> gpm at 60 psi
Lavatory, public (metering)	0.25 gallon per metering cycle
Lavatory, public (other than metering)	0.5 gpm at 60 psi
Shower head *	<u>2.0</u>
Sink faucet	2.2 gpm at 60 psi
Urinal	1.0 <u>0.5</u> gallon per flushing
Water closet	1.6 <u>1.28</u> gallons per flushing cycle
Dishwasher (Residential) *	6.5 gallons per cycle or less (Energy Star/WaterSense Certified)
<u>Dishwasher (Commercial)</u>	Less than 1.2 gallons per rack for fill and dump machines and less than 0.9 gallons per rack for low temperature machines.
Dishwasher (Under the counter machines commercial)	<u>1.0 gallons per rack for high</u> <u>temperature machines and 1.7</u> gallons per rack for low <u>temperature machines.</u>
Washing Machine *	<u>Water factor of 8 or lower</u> (EnergyStar/WaterSense Certified) ©

*If installed

For SI: 1 gallon = 3.785 L, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

- a. A hand-held shower spray is a shower head.
- b. Consumption tolerance shall be determined from referenced standards.
- c. <u>Water factor in gallons per cycle per cubic foot</u>

Broward County Amendments to Appendix F of the 2023 Florida Building Code, Plumbing, 8th Edition

- Stricken through text are deletions from the Florida Building Code, Plumbing, 8th Edition.
- <u>Underscored text</u> are additions to Florida Building Code, Plumbing, 8th Edition.

APPENDIX F PROPOSED CONSTRUCTION BUILDING CODES FOR TURF AND LANDSCAPE IRRIGATION SYSTEMS

PART I: GENERAL

C. Preconstruction Submittals

- 1. Plans or Drawings
 - c. <u>Sprinkler layout</u>: Sprinkler layout may be modified to adjust for field conditions provided it complies with part VI, Section B, subsection 1 Sprinkler layout and spacing. Prior to final inspection, the contractor shall submit a letter or as-built drawing that reflects the modification to the authority with jurisdiction.

PART IV: MATERIALS

A. PVC Pipe and Fittings

3. Threaded PVC pipe firings <u>fittings</u> shall meet the requirements of Schedule 40 as set forth in ASTM D2464.

PART V: INSTALLATION

A. Pipe Installation

- 4. Thrust blocks or other approved method must be used on all gasketed PVC systems.
- 5. The trench bottom must be uniform, free of debris, and of sufficient width to properly place pipe and support it over its entire length. Native excavated material may be used to backfill the pipe trench. However, the initial backfill the material to 6" above the top of the pipe shall be free from rocks or stones larger than 1-inch in diameter. The final backfill material shall be free of rock or debris that is greater than 3" in diameter.
- Pipe sleeves must be used to protect pipes or wires installed under pavement or roadways-, or when position of irrigation pipes or wires conflict with pipes or appurtenances of other trades.

PART VI: TESTING & INSPECTIONS

B. Rough inspections

4. <u>Open Trench Inspection: The trench at all joints and every transition in pipes size, will be</u> <u>open where open trench inspection is required.</u>

APPENDIX F PROPOSED CONSTRUCTION BUILDING CODES FOR TURF AND LANDSCAPE IRRIGATION SYSTEMS

PART I: GENERAL

A. Description

- 1. **Purpose:** To establish uniform minimum standards and requirements for the design and installation of safe, cost-effective, reliable irrigation systems for turf and landscape areas which promote the efficient use and protection of water and other natural resources.
- **2. Definition:** Turf and landscape irrigation systems apply water by means of permanent above ground or subsurface sprinkler or micro-sprinkler equipment under pressure.
- **3. Scope:** These construction codes shall apply to all irrigation systems used on residential and commercial landscape areas. They address the design requirements, water quality, materials, installation, inspection, and testing for such systems. These construction codes do not apply to irrigation systems for golf courses, nurseries, greenhouses, or agricultural production systems.
- **4. Application:** All new irrigation systems and any new work to existing irrigation systems shall conform to the requirements of this code.
- **5. Application to Existing Irrigation Installations:** Nothing contained in this code shall be deemed to require any irrigation system or part thereof, which existed prior to the establishment of this code, to be changed, altered or modified to meet the standards of this code.

B. Permits

- Permits Required: It shall be unlawful to construct, enlarge, alter, modify, repair, or move any irrigation system or part thereof, or to install or alter any equipment for which provision is made or the installation of which is regulated by this code without first having filed application and obtained a permit therefore from the building official. A permit shall be deemed issued when signed by the building official and impressed with the seal of the governmental agency issuing said permit.
- 2. Exceptions: All work where exempt from permit shall still be required to comply with the code. No permit shall be required for general maintenance or repairs which do not change the structure or alter the system and the value of which does not exceed \$600.00 in labor and material based on invoice value.

C. Preconstruction Submittals

1. Plans or Drawings

- **a. Single-Family Residence:** Provide design drawings or shop drawings, where required, for the installation prior to start of construction. Design drawings shall be clearly readable, to reasonable scale, show the entire site to be irrigated, and include all improvements. Drawings can be prepared by a properly licensed qualified contractor.
- b. Commercial, Industrial, Municipal, and Multiple Family: Provide professionally designed drawings prior to start of construction. Design drawings shall be clearly readable, to reasonable scale, show the entire site to be irrigated, including all improvements, and shall include but not be limited to: date, scale, revisions, legend, specifications which list all aspects of equipment and assembly thereof, water source, water meter and/or point of connection, backflow prevention devices, pump station size, pump station location, design operating pressure and flow rate per zone, precipitation rate per zone, locations of pipe, controllers, valves, sprinklers, sleeves,

gate valves, etc. The plans and specifications shall be prepared in accordance with Section 107 of the *Florida Building Code, Building*.

c. Sprinkler Layout: Sprinkler layout may be modified to adjust for field conditions provided it complies with part VI, Section B, subsection 1 Sprinkler layout and spacing. Prior to final inspection, the contractor shall submit a letter or as-built drawing that reflects the modification to the authority with jurisdiction.

D. Definitions

ABS Pipe: Acrylonitrile-butadiene-styrene black, semi-rigid, plastic pipe extruded to IPS. ABS pipe is in limited use in present-day irrigation systems. Solvent weld fittings are used with this pipe (see ASTM D1788).

Air Release Valve: A valve which will automatically release to the atmosphere accumulated small pockets of air from a pressurized pipeline. A small orifice is used to release air at low flow rates. Air release valves are normally required at all summits of mainline and submain pipelines in an irrigation system.

Anti-Siphon Device: A safety device used to prevent back-flow of irrigation water to the water source by back-siphonage.

Application Rate: The average rate at which water is applied by an irrigation system sometimes also called precipitation rate. Units are typically inches/hr or mm/hr.

Application Uniformity: Irrigation application uniformity (also known as distribution uniformity) describes how evenly water is distributed within an irrigation zone.

Arc: The angle of coverage of a sprinkler in degrees from one side of throw to the other. A 90-degree arc would be a quarter-circle sprinkler.

Atmospheric Vacuum Breaker: An anti-siphon device which uses a floating seat to direct water flow. Water draining back from irrigation lines is directed to the atmosphere to protect the potable water supply.

Automatic Control Valve: A valve in a sprinkler system which is activated by an automatic controller by way of hydraulic or electrical control lines and controls a single device or multiple devices.

Automatic System: An irrigation system which operates following a preset program entered into an automatic controller.

Backflow Prevention Device: An approved safety device used to prevent pollution or contamination of the irrigation water supply due to backflow from the irrigation system.

Belled (Pipe): Pipe which is enlarged at one end so that the spigot end of another length of pipe can be inserted into it during the assembly of a pipeline.

Block (of sprinklers): A group of sprinklers controlled by one valve. Also called zones or subunits.

Block System: An irrigation system in which several groups of sprinklers are controlled by one valve for each group.

Bubbler Irrigation: The application of water to the soil surface or a container as a small stream or fountain. Bubbler emitter discharge rates are greater than the 0.5 to 2 gph characteristic of drip emitters, but generally less than 60 gph.

Check Valve: A valve which permits water to flow in one direction only.

Chemical Water Treatment: The addition of chemicals to water to make it acceptable for use in irrigation systems.

Chemigation: The application of water-soluble chemicals by mixing or injecting with the water applied through an irrigation system.

Contractor: Any person who engages in the fabrication and installation of any type of irrigation system on a contractual basis in accordance with all stipulations receiving his compensation.

Control Lines: Hydraulic or electrical lines which carry signals (to open and close the valves) from the controller to the automatic valves.

Controller: The timing mechanism and its mounting box. The controller signals the automatic valves to open and close on a pre-set program or based on sensor readings.

Coverage: Refers to the way water is applied to an area.

Cycle: Refers to one complete run of a controller through all programmed controller stations. **Demand (or Irrigation Demand):** Refers to the irrigation requirements of the irrigated area. Demand primarily depends on the type of crop, stage of growth, and climatic factors.

Design Area: The specific land area to which water is to be applied by an irrigation system. **Design Emission Uniformity:** An estimate of the uniformity of water application with an irrigation system.

Design Pressure: The pressure at which the irrigation system or certain components are designed to operate. The irrigation system design pressure is that measured at the pump discharge or entrance to the system if there is no pump, and a zone design pressure is the average operating pressure of all emitters within that zone.

Direct Burial Wire: Plastic-coated single-strand copper wire for use as control line for electric valves.

Discharge Rate: The instantaneous flow rate of an individual sprinkler, emitter, or other water emitting device, or a unit length of line-source microirrigation tubing. Also, the flow rate from a pumping system.

Double Check Valve: An approved assembly of two single, independently acting check valves with test ports to permit independent testing of each check valve.

Drain Valve: A valve used to drain water from a line. The valve may be manually or automatically operated.

Drip Irrigation: The precise low-rate application of water to or beneath the soil surface near or directly into the plant root zone. Applications normally occur as small streams, discrete or continuous drops, in the range of 0.5 to 2.0 gph.

Effluent Water: Also referred to as reclaimed or gray water is wastewater which has been treated per Florida Statute, §403.086 and is suitable for use as a water supply for irrigation systems.

Emitters: Devices which are used to control the discharge of irrigation water from lateral pipes. This term is primarily used to refer to the low flow rate devices used in microirrigation systems.

Fertigation: The application of soluble fertilizers with the water applied through an irrigation system.

Filtration System: The assembly of physical components used to remove suspended solids from irrigation water. These include both pressure and gravity type devices, such as settling basins, screens, media filters, and centrifugal force units (vortex sand separators).

Flexible Swing Joint: A flexible connection between the lateral pipe and the sprinkler which allows the sprinkler to move when force is applied to it.

Flow Meters: Devices used to measure the volume of flow of water (typically in gallons), or flow rates (typically in gpm), and to provide data on system usage.

Gauge (Wire): Standard specification for wire size. The larger the gauge number, the smaller the wire diameter.

Head: A sprinkler head. Sometimes used interchangeably with and in conjunction with "Sprinkler."

Infiltration Rate: The rate of water flow across the surface of the soil and into the soil profile. Units are usually inches/hr.

Irrigation: Application of water by artificial means, that is, means other than natural precipitation. Irrigation is practiced to supply crop water requirements, leach salts, apply chemicals, and for environmental control including crop cooling and freeze protection.

Irrigation Water Requirement or Irrigation Requirement: The quantity of water that is required for crop production, exclusive of effective rainfall.

Landscape: Refers to any and all areas which are ornamentally planted, including but not limited to turf, ground covers, flowers, shrubs, trees, and similar plant materials as opposed to agricultural crops grown and harvested for monetary return.

Lateral: The water delivery pipeline that supplies water to the emitters or sprinklers from a manifold or header pipeline downstream of the control valve.

Line-Source Emitters: Lateral pipelines which are porous or contain closely spaced perforations so that water is discharged as a continuous band or in overlapping patterns rather than discrete widely spaced points along the pipeline length.

Looped System: A piping system which allows more than one path for water to flow from the supply to the emitters or sprinklers.

Low Volume Sprinklers: Sprinkler heads that emit less than 0.5 gallons per minute.

Mainline: A pipeline which carries water from the control station to submains or to manifolds or header pipelines of the water distribution system.

Manifold: The water delivery pipeline that conveys water from the main or submain pipelines to the laterals. Also sometimes called a header pipeline.

Manual System: A system in which control valves are manually operated rather than operated by automatic controls.

Matched Precipitation: An equal distribution of water over a given area or zone.

Meter Box: A concrete or plastic box buried flush to grade which houses flow (water) meters or other components.

Microirrigation: The frequent application of small quantities of water directly on or below the soil surface, usually as discrete drops, tiny streams, or miniature sprays through emitters placed along the water delivery pipes (laterals). Microirrigation encompasses a number of methods or concepts, including drip, subsurface, bubbler, and spray irrigation. Previously known as trickle irrigation.

Overlap: The amount one sprinkler pattern overlaps another one when installed in a pattern. Expressed as a percentage of the diameter of coverage.

PE Pipe: Flexible polyethylene pipe for use in irrigation systems, normally manufactured with carbon black for resistance to degradation by ultraviolet radiation.

Potable Water: Water which is suitable in quality for human consumption and meets the requirements of the Health Authority having jurisdiction.

Pressure Relief Valve: A valve which will open and discharge to atmosphere when the pressure in a pipeline or pressure vessel exceeds a pre-set point to relieve the high-pressure condition.

Pressure Vacuum Breaker: A backflow prevention device which includes a spring-loaded check valve and a spring-loaded vacuum breaker to prevent the backflow of irrigation system water to the water source.

Pumping Station: The pump or pumps that provide water to an irrigation system, together with all of the necessary accessories such as bases or foundations, sumps, screens, valves, motor controls, safety devices, shelters and fences.

PVC Pipe: Polyvinyl chloride plastic pipe made in standard thermoplastic pipe dimension ratios and pressure rated for water. Manufactured in accordance with AWWA C-900 or ASTM D2241.

Rain Shut Off Device: A calibrated device that is designed to detect rainfall and override the irrigation cycle of the sprinkler system when a predetermined amount of rain fall has occurred. **Riser:** A threaded pipe to which sprinklers or other emitters are attached for above-ground placement.

Sleeve: A pipe used to enclose other pipes, wire, or tubing; usually under pavement, sidewalks, or planters.

Spacing: The distance between sprinklers or other emitters.

Spray Irrigation: The microirrigation application of water to the soil or plant surface by low flow rate sprays or mists.

Sprinkler: The sprinkler head. Sometimes called "Head."

Supply (Water Source): The origin of the water used in the irrigation system. Swing Joint: A ridged connection between the lateral pipe and the sprinkler, utilizing multiple ells and nipples, which allows the sprinkler to move when force is applied to it. Tubing: Generally used to refer to flexible plastic hydraulic control lines, which are usually constructed of PE or PVC. apps

PART II: DESIGN CRITERIA

A. Design Defined

Within the scope of this code, irrigation system design is defined as the science and art of properly selecting and applying all components within the system. The irrigation system shall be designed and installed to achieve the highest possible efficiency by providing operating pressures, sprinkler placement, and nozzle selection that are within the manufacturer's recommendations and maintained to keep the system at or within those ranges.

B. Water Supply

- 1. The water source shall be adequate from the standpoint of volume, flow rate, pressure, and quality to meet the irrigation requirements of the area to be irrigated, as well as other demands, if any, both at the time the system is designed and for the expected life of the system. The irrigation system shall use the lowest quality water source available on site.
- 2. If the water source is effluent, it shall meet the advanced waste treatment standard as set forth in Florida Statute §403.086(4) as well as any other standard as set forth by the controlling governmental agency.

C. Application Uniformity

- 1. Sprinkler irrigation systems should be designed with the appropriate uniformity for the type of plants being grown and the type of soil found in that area. The general watering of different types of plants as one group without regard to their individual water requirements is to be avoided.
- **2.** Use sprinkler head spacing, type, and nozzle selection to achieve the highest application uniformity.
- **3.** Use application rates which avoid runoff and permit uniform water infiltration into the soil. Land slope, soil hydraulic properties, vegetative ground cover, and prevailing winds and sun exposure will be considered when application rates are specified. Different types of sprinklers with different application rates, i.e., spray heads vs. rotor heads, bubbler heads vs. rotor heads, shall not be combined on the same zone or circuit.
- **D.** System Zoning: The irrigation system should be divided into zones based on consideration of the following hydrozoning practices.
 - **1.** Available flow rate.
 - **2.** Cultural use of the area.
 - **3.** Type of vegetation irrigated, i.e., turf, shrubs, native plants, etc.
 - **4.** Type of sprinkler, i.e., sprinklers with matching precipitation rates.
 - 5. Soil characteristics and slope.
 - 6. Sun exposure.

E. Sprinkler/Emitter Spacing and Selection

1. Sprinkler/Emitter spacing will be determined considering the irrigation requirements, hydraulic characteristics of the soil and device, and water quality with its effect on plant growth, sidewalks, buildings, and public access areas.

- **2.** All pop-up spray head bodies in turf areas shall be no less than 6 inches in height for St. Augustine, Zoysia and Bahia and no less than 4 inches in height for Bermuda, Centapede and Seashore Paspalum.
- **3.** Sprinklers should be located in all corners and on the perimeter of each irrigated zone area for a matched precipitation rate objective.
- **4.** Single row head spacing should only occur when an additional row will cause saturated soils at the toe of a slope or other inefficiencies.
- 5. All heads shall not exceed 50 percent of manufacturer's specified diameters of coverage.
- 6. Water conservation will be emphasized by minimizing irrigation of nonvegetated areas.
- **7.** Microirrigation systems should be designed using the Emission Uniformity concept. Space microirrigation emitters to wet 100 percent of the root zone in turf areas and 50 percent of the root zone for shrubs and trees.
- **8.** Microirrigation or low-volume heads shall be required in all areas less than 4 feet in either direction.
- **9.** All microirrigation zones shall have adequate filtration installed at the zone valve or at the point where the drip tubing is attached to PVC pipe to protect the emission devices from contamination from a PD main or lateral break.
- **10.** Each plant shall have an adequate number and size (gph) of microirrigation devices, properly placed, to meet the plant water requirements for no rainfall.

E. Pipelines

Pipelines will be sized to limit pressure variations so that the working pressure at all points in the irrigation system will be in the range required for uniform water application. Velocities will be kept to 5 feet (1524 mm) per second.

F. Wells

- 1. Well diameters and depths are to be sized to correspond to the irrigation system demand. Refer to SCS Code FL-642 and local water management district regulations.
- 2. Well location and depth shall be in compliance with applicable state, water management district and local codes.

G. Pumps

- **1.** 1.Pump and motor combinations shall be capable of satisfying the total system demand without invading the service factor of the motor except during start-up and between zones.
- **2.** 2.Pumps shall be positioned with respect to the water surface in order to ensure that the net positive suction head required (NPSHr) for proper pump operation is achieved.
- 3. 3. The pumping system shall be protected against the effects of the interruption of water flow.

H. Control Valves

- 1. Control valve size shall be based on the flow rate through the valve. Friction loss through the valve, an approved air gap separation, or a reduced pressure should not exceed 10 percent of the static mainline head.
- 2. Control systems using hydraulic communication between controller and valve(s) shall comply with the manufacturer's recommendations for maximum distance between controller and valve, both horizontally and vertically (elevation change).
- **3.** The size of the electrical control wire shall be in accordance with the valve manufacturer's specifications; based on the solenoid in-rush amperage and the circuit length, considering the number of solenoids operating on the circuit. Minimum of #14 AWG single strand control wire shall be used on all systems, except individual, single lot residential systems.
- **4.** Locate manually operated control valves so that they can be operated without wetting the operator.
- 5. Locate inground valves away from large tree and palm root zones.

- 6. A manual shut-off valve shall be required to be installed close to the point of connection but downstream from any backflow device to minimize water loss when the system is shut off for repairs or emergencies.
- **7.** An automatic shut-off valve (normally closed) is required on all systems with a constantly pressurized mainline to confine the water loss from minor main line leaks, weeping valves, or stuck-on valves to just the time the system is operating automatically.
- I. Automatic Irrigation Controller: Automatic irrigation controllers must be UL-approved and have an adequate number of stations and power output per station to accommodate the irrigation system design. The controller shall be capable of incorporating a rain shut-off device or other sensors to override the irrigation cycle when adequate rainfall has occurred, as required by Florida Statutes, Section 373.62.

J. Chemical Injection

- 1. Chemical injection systems for the injection of fertilizer, pesticides, rust inhibitors, or any other injected substance will be located and sized according to the manufacturers' recommendations.
- 2. Injection systems will be located downstream of the applicable backflow prevention devices as required by Florida Statutes, Sections 487.021 and 487.055; the Environmental Protection Agency (EPA); Pesticide Regulation Notice 87-1; or other applicable codes.
- **3.** If an irrigation water supply is also used for human consumption, an air gap separation or an approved reduced pressure principal backflow prevention device is required.
- **K. Backflow Prevention Methods:** Provide backflow prevention assemblies at all crossconnections with all water supplies in accordance with county, municipal, or other applicable codes to determine acceptable backflow prevention assembly types and installation procedures for a given application. In the event of conflicting regulations, provide the assembly type which gives the highest degree of protection.
 - Irrigation systems into which chemicals are injected shall conform to Florida state law (Florida Statutes 487.021 and 487.055) and Environmental Protection Agency Pesticide Regulation Notice 87-1, which requires backflow prevention regulations to be printed on the chemical label.
 - 2. For municipal water supplies, chemical injection equipment must be separated from the water supply by an approved air gap separation or a reduced pressure principal assembly that is approved by the Foundation for CCC and the Hydraulic Research Institute. The equipment must also comply with ASSE 1013 to protect the water supply from back-siphonage and back-pressure.
 - **3.** For other water supplies, Florida State law, EPA regulations, or other applicable local codes must be followed. In the absence of legal guidelines, at least a PVB should be used.

PART III: STANDARDS

1. American Society of Agricultural Engineers (ASAE) Standards:

ASAE S330.1: Procedure for sprinkler distribution testing for research purposes.

ASAE S376.1: Design, installation, and performance of underground thermoplastic irrigation pipelines.

ASAE S397.1: Electrical service and equipment for irrigation.

ASAE S435: Drip/Trickle Polyethylene Pipe used for irrigation laterals.

ASAE S398.1: Procedure for sprinkler testing and performance reporting.

ASAE S339: Uniform classification for water hardness.

ASAE S394: Specifications for irrigation hose and couplings used with self-propelled, hose-drag agricultural irrigation system.

ASAE EP400.1: Designing and constructing irrigation wells.

ASAE EP405: Design, installation, and performance of trickle irrigation systems.

ASAE EP409: Safety devices for applying liquid chemicals through irrigation systems.

2. ASTM International Standards:

ASTM D2241: Poly (Vinyl Chloride) (PVC) Plastic pipe (SDR-PR).

ASTM D2239: Specification for polyethylene (PE) plastic pipe (SDR-PR).

ASTM D2466: Specification for socket-type poly (vinyl chloride) (PVC) and chlorinated poly (vinyl chloride) (CPVC) plastic pipe fittings, Schedule 40.

ASTM D2855: Standard recommended practice for making solvent-cemented joints with polyvinyl chloride pipe and fittings.

ASTM D3139: Specification for joints for plastic pressure pipes using flexible elastomeric seals.

ASTM F477: Specification for elastomeric seals (gaskets for joining plastic pipe).

3. American Water Works Association (AWWA) Standards:

AWWA C-900: PVC pipe standards and specifications.

4. American Society of Sanitary Engineers (ASSE) Standards:

ASSE 1001: Pipe applied atmospheric type vacuum breakers.

ASSE 1013: Reduced pressure principal backflow preventers.

ASSE 1015: Double check valve-type back pressure backflow preventers.

ASSE 1020: Vacuum breakers, anti-siphon, pressure type.

ASSE 1024: Dual check valve-type backflow preventers.

- 5. Hydraulic Institute Standards, 14th Edition
- 6. Standards and Specifications for Turf and Landscape Irrigation Systems Florida Irrigation Society (FIS) Standards.
- 7. Soil Conservation Service (SCS) Field Office Technical Guide, Section IV-A Cropland Codes:

SCS Code 430-DD: Irrigation water conveyance, underground, plastic pipeline. **SCS Code 430-EE:** Irrigation water conveyance. Low-pressure, underground, plastic pipeline.

SCS Code 430-FF: Irrigation water conveyance, steel pipeline.

SOS Code 441-1: Irrigation system, trickle.

SCS Code 442: Irrigation system sprinkler.

SCS Code 449: Irrigation water management.

SCS Code 533: Pumping plant for water control.

PART IV: MATERIALS

A. PVC Pipe and Fittings

- 1. PVC pipe should comply with one of the following standards: ASTM D1785, ASTM D2241, AWWA C-900, or AWWA C-905. SDR-PR pipe shall have a minimum wall thickness as required by SDR-26. All pipes used with effluent water systems shall be designated for nonpotable use by either label or by the industry standard color purple.
- **2.** All solvent-weld PVC fittings shall, at a minimum, meet the requirements of Schedule 40 as set forth in ASTM D2466.
- **3.** Threaded PVC pipe <u>firings fittings</u> shall meet the requirements of Schedule 40 as set forth in ASTM D2464.
- **4.** PVC gasketed fittings shall conform to ASTM D3139. Gaskets shall conform to ASTM F477.
- **5.** PVC flexible pipe should be pressure rated as described in ASTM D2740 with standard outside diameters compatible with PVC IPS solvent-weld fittings.
- 6. PVC cement should meet ASTM D2564. PVC cleaner-type should meet ASTM F656.

B. Ductile Iron Pipe and Fittings

1. Gasket fittings for iron pipe should be of materials and type compatible with the piping material being used.

C. Steel Pipe and Fittings

- **1.** All steel pipes shall be rated Schedule 40 or greater and be hot-dipped galvanized or black in accordance with ASTM A53/A53M.
- 2. Threaded fittings for steel pipe should be Schedule 40 Malleable Iron.

D. Polyethylene Pipe

- **1.** Flexible swing joints shall be thick-walled with a minimum pressure rating of 75 psi (517 kPa) in accordance with ASTM D2239.
- 2. Low-pressure polyethylene pipe for microirrigation systems shall conform with ASAE S-435.
- **3.** Use fittings manufactured specifically for the type and dimensions of polyethylene pipe used.

E. Sprinklers, Spray Heads, and Emitters

- Select units and nozzles in accordance with the size of the area and the type of plant material being irrigated. Sprinklers must fit the area they are intended to water without excessive overspray onto anything but the lot individual landscaped surface. Intentional direct spray onto walkways, buildings, roadways, and drives is prohibited. All sprinklers used with effluent water systems shall be designated for non-potable use by either label or by the industry standard color purple.
- **2.** Use equipment that is protected from contamination and damage by use of seals, screens, and springs where site conditions present a potential for damage.
- **3.** Support riser-mounted sprinklers to minimize movement of the riser resulting from the action of the sprinkler.
- **4.** Swing joints, either flexible or rigid, shall be constructed to provide a leak-free connection between the sprinkler and lateral pipeline to allow movement in any direction and to prevent equipment damage.
- 5. Check valves shall be installed on any sprinkler where low point drainage occurs.
- **6.** All tubing shall be installed under ground cover using staples at close enough intervals (24 to 36 inches) to secure the tubing and prevent it from moving through the mulch bed.

F. Valves

- Valves must have a maximum working pressure rating equal to or greater than the maximum pressure of the system, but not less than 125 psi (861 kPa). This requirement may be waived for low mainline pressure systems [30 psi (207 kPa) or less]. All valves used with effluent water systems shall be designated for nonpotable use by either label or by the industry standard color purple.
- 2. Only valves that are constructed of materials designed for use with the water and soil conditions of the installation shall be used. Valves that are constructed from materials that will not be deteriorated by chemicals injected into the system shall be used on all chemical injection systems.

G. Valve Boxes

- 1. Valve boxes are to be constructed to withstand traffic loads common to the area in which they are installed. They should be sized to allow manual operation of the enclosed valves without excavation.
- **2.** Each valve box should be permanently labeled to identify its contents. All valve boxes used with effluent water systems shall be designated for nonpotable use by either label or by the industry standard color purple.

H. Low Voltage Wiring

- All low-voltage wire which is directly buried must be labeled for direct burial wire. Wire not labeled for direct burial must be installed in watertight conduits and be UL listed TWN or THHN type wire as described in the NEC. All wire traveling under any hardscape or roadway must installed within a pipe and sleeve.
- 2. The size of the electrical control wire shall be in accordance with the valve manufacturer's specifications, based on the solenoid in-rush amperage and the circuit length, considering the number of solenoids operating, on the circuit. Minimum of #14 AWG single strand control wire shall be used on all systems, except single lot individual residential systems.
- **3.** Connections are to be made using UL approved devices specifically designed for direct burial. All splices shall be enclosed within a valve box.

I. Irrigation Controllers

- All irrigation controllers shall be UL listed, conform to the provisions of the National Electric Code (NEC), and be properly grounded in accordance with manufacturer's recommendations. Equip solid state controls with surge suppressors on the primary and secondary wiring, except single lot residential systems.
- **2.** The controller housing or enclosure shall protect the controller from the hazards of the environment in which it is installed.
- 3. The rain switch shall be placed on a stationary structure minimum of 5-foot (1524 mm) clearance from other outdoor equipment, free and clear of any tree canopy or other overhead obstructions, and above the height of the sprinkler coverage. Soil moisture sensors and ET sensors shall be installed and monitored per manufacturer's guidelines per Florida Statutes, Section 373.62 requirements.

J. Pumps and Wells

- 1. Irrigation pump electrical control systems must conform to NEC and local building codes.
- **2.** The pumping system shall be protected from the hazards of the environment in which it is installed.
- **3.** Use electric motors with a nominal horsepower rating greater than the maximum horsepower requirement of the pump during normal operation. Motor shall have a service factor of at least 1.15.

4. Casings for drilled wells may be steel, reinforced plastic mortar, plastic, or fiberglass pipe. Only steel pipe casings shall be used in driven wells. Steel pipe must have a wall thickness equal to or greater than Schedule 40. See SCS code FL-642. Steel casings shall be equal to or exceed requirements of ASTM A589.

K. Chemical Injection Equipment

1. Chemical injection equipment must be constructed of materials capable of withstanding the potential corrosive effects of the chemicals being used. Equipment shall be used only for those chemicals for which it was intended as stated by the injection equipment manufacturer.

L. Filters and Strainers

1. Filtration equipment and strainers constructed of materials resistant to the potential corrosive and erosive effects of the water shall be used. They shall be sized to prevent the passage of foreign material that would obstruct the sprinkler/emitter outlets in accordance with the manufacturer's recommendations.

PART V: INSTALLATION

A. Pipe Installation

 Pipe shall be installed at sufficient depth below ground to protect it from hazards such as vehicular traffic or routine occurrences which occur in the normal use and maintenance of a property. Depths of cover shall meet or exceed SCS Code 430-DD, Water Conveyance, as follows:

Pipe Size (inches)Depth of Cover (inches) $1/2 - 21/2$ 18	
$^{1}/_{2}-2^{1}/_{2}$	18
3 – 5	24
6 and larger	30

b. All areas except vehicle traffic:

Pipe Size (inches)	Depth of Cover (inches)
$^{1}/_{2}-1^{1}/_{2}$	6
2 – 3	12
4 - 6	18
More than 6	24

- **2.** Make all pipe joints and connections according to the manufacturer's recommendations. Perform all solvent-weld connections in accordance with ASTM D2855.
- **3.** Minimum clearances shall be maintained between irrigation lines and other utilities. In no case shall one irrigation pipe rest upon another. Comingling or mixing of different types of pipe assemblies shall be prohibited.
- **4.** Thrust blocks <u>or other approved methods</u> must be used on all gasketed PVC systems. They must be formed against a solid, hand-excavated trench wall undamaged by mechanical equipment. They shall be constructed of concrete, and the space between the pipe and

trench shall be filled to the height of the outside diameter of the pipe. Size thrust blocks in accordance with ASAE S-376.1.

- 5. The trench bottom must be uniform, free of debris, and of sufficient width to properly place pipe and support it over its entire length. Native excavated material may be used to backfill the pipe trench. However, the initial backfill material to 6" above the top of the pipe shall be free from rocks or stones larger than 1 inch in diameter. The final backfill material shall be free of rock or debris that is greater than 3" in diameter. At the time of placement, the moisture content of the material shall be such that the required degree of compaction can be obtained with the backfill method to be used. Blocking or mounding shall not be used to bring the pipe to final grade.
- 6. Pipe sleeves must be used to protect pipes or wires installed under pavement or roadways, or when position of irrigation pipes or wires conflict with pipes or appurtenances of other trades. Use pipe sleeves two pipe sizes larger than the carrier pipe or twice the diameter of the wire bundle to be placed under the paving or roadway and extending a minimum of 3 feet beyond the paved area or as required by the Florida Department of Transportation (FDOT). Use sleeve pipe with wall thickness at least equal to the thickness of Schedule 40 or PR 160 pipe, whichever is thicker. Proper backfill and compaction procedures should be followed.

B. Control Valve Installation

- Valve installation shall allow enough clearance for proper operation and maintenance. Where valves are installed underground, they shall be provided with a valve box with cover extending from grade to the body of the valve. The top of the valve body should have a minimum of 6 inches (152 mm) of cover in nontraffic and noncultivated areas and 18 inches (457 mm) of cover in traffic areas. The valve box shall be installed so as to minimize the effect of soil intrusion within the valve box with the use of filter fabric, pea gravel, or other acceptable material. If an automatic valve is installed under each sprinkler, then the valve box may be omitted.
- 2. Install valve boxes so that they do not rest on the pipe, the box cover does not conflict with the valve stem or interfere with valve operation, they are flush with the ground surface and do not present a tripping hazard or interfere with routine maintenance of the landscape.
- **3.** Install quick coupling valves on swing joints or flexible pipes with the top of the valve at ground level.
- **4.** Any above-ground manually operated valves on nonpotable water systems will be adequately identified with distinctive purple-colored paint. Do not provide hose connections on irrigation systems that utilize nonpotable water supplies.

C. Sprinkler Installation

- **1.** On flat landscaped areas, install sprinklers plumb. In areas where they are installed on slopes, sprinklers may be tilted as required to prevent erosion.
- **2.** Sprinklers should be adjusted to avoid unnecessary discharge on pavements and structures.
 - **a.** Adjust sprinklers so they do not water on roads.
 - b. Provide a minimum separation of 4 inches (102 mm) between sprinklers and pavement.
 - **c.** Provide a minimum separation of 12 inches (305 mm) between sprinklers and buildings and other vertical structures.
 - **d.** Polyethylene (PE) nipples shall not be used in maintenance equipment traffic areas or alongside roadways and driveways.
- **3.** Piping must be thoroughly flushed before installation of sprinkler nozzles.
- **4.** Surface-mounted and pop-up heads shall be installed on swing joints or flexible pipes.
- **5.** Above-ground (riser mounted) sprinklers shall be mounted on Schedule 40 PVC or steel pipe and be effectively stabilized.

- 6. The pop-up height for sprays and rotator nozzles shall be adequate to prevent being obstructed by the turf grass blades: 6-inch height for St. Augustine, Zoysia and Bahia, 4-inch height for Bermuda, Centapede and Seashore Paspalum.
- **7.** All microirrigation zones shall have adequate filtration installed at the zone valve or at the point where the drip tubing is attached to PVC pipe to protect the emission devices from contamination from a PVC main or lateral break.
- **8.** All microirrigation zones shall have adequate pressure regulation installed at the zone valve or at the point where the drip tubing is attached to the PVC to ensure that all emission devices meet the manufacturer's performance standards.
- **9.** Each plant shall have an adequate number and size (gph) of microirrigation devices, properly placed to meet the plant water requirements for no rainfall.
- **10.** All tubing shall be installed under ground cover using staples at close enough intervals (24 to 36 inches) to secure the tubing and prevent it from moving through the mulch bed.

D. Pump Installation

- 1. Install pumps as per the manufacturer's recommendations. Set pumps plumb and secure to a firm concrete base. There should be no strain or distortion on the pipe and fittings. Pipe and fittings should be supported to avoid placing undue strain on the pump. Steel pipe should be used on pumps 5 horsepower (hp) or larger whenever practical.
- 2. Pumps must be installed in a manner to avoid loss of prime. Install suction line to prevent the accumulation of air pockets. All connections and reductions in suction pipe sizes should be designed to avoid causing air pockets and cavitation.
- **3.** Pumps must be located to facilitate service and ease of removal. Appropriate fittings should be provided to allow the pump to readily be primed, serviced, and disconnected. Provide an enclosure of adequate size and strength, with proper ventilation, to protect the pump from the elements (except residential systems).

E. Low Voltage Wire Installation

- 1. Install low voltage wire (less than 98 volts) with a minimum depth of cover of 12 inches (305 mm) where not installed directly under the mainline.
- **2.** Provide a sufficient length of wire at each connection to allow for thermal expansion/shrinkage.
- **3.** As a minimum, provide a 12-inch (305 mm) diameter loop at all splices and connections.
- **4.** Terminations at valves will have 24 inches (610 mm) minimum free wire.
- Install all above-ground wire runs and wire entries into buildings in electrical conduit.
 Exception: No conduit is required when wiring above-ground manifolds from the valve to the ground immediately beneath it.
- **6.** Provide common wires with a different color than the power wires (white shall be used for common wires).
- **7.** Connections are to be made using UL-approved devices specifically designed for direct burial.
- 8. All splices shall be enclosed within a valve box.

L. Hydraulic Control Tubing

- 1. For hydraulic control systems, use a water supply that is filtered and free of deleterious materials, as defined by the hydraulic control system manufacturer. Install a backflow prevention device where the hydraulic control system is connected to potable water supplies.
- Install tubing in trenches freely and spaced so that it will not rub against pipe, fittings, or other objects that could score the tubing, and with a minimum 12-inch (305 mm) diameter loop at all turns and connections. Provide a minimum depth of cover of 12 inches (305 mm).

3. Connect tubing with couplings and collars recommended by the tubing manufacturer. All splices shall be made in valve boxes. Prefill tubing with water, expelling entrapped air, and testing for leaks prior to installation.

Install exposed tubing in a protective conduit manufactured from Schedule 40 UV-protected PVC or electrical conduit.

PART VI: TESTING & INSPECTIONS

- **A. Purpose:** All materials and installations covered by the Irrigation Code shall be inspected by the governing agency to verify compliance with the Irrigation Code.
- **B. Rough Inspections:** Rough inspections will be performed throughout the duration of the installation. These inspections will be made by the governing agency to ensure that the installation is in compliance with the design intent, specifications, and the Irrigation Codes. Inspections will be made on the following items at the discretion of the governing agency:
 - Sprinkler layout and spacing: This inspection will verify that the irrigation system design is accurately installed in the field. It will also provide for alteration or modification of the system to meet field conditions. To pass this inspection, sprinkler/emitter spacing should be within ± 5 percent of the design spacing.
 - **2.** Pipe installation depth: All pipes in the system shall be installed to depths as previously described in this code.
 - 3. Test all mainlines upstream of the zone valves as follows:
 - **a.** Fill the completely installed pipeline slowly with water to expel air. Allow the pipe to sit full of water for 24 hours to dissolve the remaining trapped air.
 - **b.** Using a metering pump, elevate the water pressure to the maximum static supply pressure expected and hold it there for a period of 2 hours, solvent-weld pipe connections shall have no leakage.
 - **c.** For gasketed pipe main lines, add water as needed to maintain the pressure. Record the amount of water added to the system over the 2-hour period.
 - **d.** Use the following formulas to determine the maximum allowable leakage limit of gasketed pipe.

DUCTILE IRON:	PVC, GASKETED JOINT:
$L = \frac{SDP}{133,200}$	$L = \frac{NDP}{7,400}$
	Where: L = allowable leakage (gph), N = number of joints, D = nominal diameter of pipe (inches), P = average test pressure (psi), and S = length of pipe (fi).

- **e.** When testing a system which contains metal-seated valves, an additional leakage per closed valve of 0.078 gph/inch of nominal valve size is allowed.
- 4. <u>Open Trench Inspection: The trench at all joints and every transition in the pipe size will be open</u> where open trench inspection is required.
- **C. Final Inspection:** When the work is complete, the contractor shall request a final inspection.
 - **1.** Cross-connection control and backflow prevention.

Public or domestic water systems: Check that an approved backflow prevention assembly is properly installed and functioning correctly. Review the location of the assembly to check that it is not creating a hazard to pedestrians or vehicular traffic.

Water systems other than public or domestic water systems: Check that the proper backflow prevention assemblies are provided.

All assemblies that can be, will be tested by a technician certified for backflow testing by a State recognized certifying board prior to being placed into service.

- 2. Sprinkler coverage testing.
 - **a.** All sprinklers must be adjusted to minimize overspray onto buildings and paved areas. Minor tolerances shall be made to allow for prevailing winds.
 - **b.** All sprinkler controls must be adjusted to minimize runoff of irrigated water. Water application rates shall not exceed the absorption rate of the soil.
 - **c.** All sprinklers must operate at their design radius of throw. Nozzle sizes and types called for in the system design must have been used. All nozzles within the same zone shall have matched precipitation rates unless otherwise directed in order to increase efficiency by adjusting the nozzle selection to match site conditions.
 - **d.** Spray patterns must overlap as designed (a.k.a. head-to-head coverage) or placed to achieve the highest possible distribution uniformity using the manufacturer's specifications.
 - e. Sprinklers must be connected, as designed, to the appropriate zone.
 - f. Sprinkler heads must operate within 20 percent of the optimum operating pressure but not more than the maximum nor less than the minimum guidelines as specified by the manufacturer. If the dynamic water pressure at the site's water source(s) is too low to achieve this pressure range at the sprinklers, a booster pump or alternate source shall be required. If the dynamic water pressure at the site's water source(s) is too high to achieve this pressure range at the sprinklers, a pressure regulating device shall be required at either the source, the zone valve, or the sprinklers, or any combination thereof.

D. Site Restoration

1. All existing landscaping, pavement, and grade of areas affected by work must be restored to original condition or to the satisfaction of the governing authority.

Verify that the pipeline trenches have been properly compacted to the densities required by the plans and specifications.

E. Record Drawings

- **1.** A record drawing shall be required of all irrigation systems installed on commercial and residential developments and shall contain the following information:
 - **a.** Location, type pressure, and maximum flow available of all water sources.
 - Include limitations like days of week watering requirements.
 - **b.** Location type and size of all components, including sprinklers, microirrigation, main and lateral piping, master valves, valves, moisture sensors, rain sensors, controllers, pump start relays, backflow devices, pumps, wells, etc.
 - **c.** The flow rate, application rate (inches per hour), and the operating pressure for the sprinklers and microirrigation within each zone.
 - **d.** An irrigation schedule for each zone, for each season (monthly is preferred), indicating the frequency and duration each zone should operate to meet the plant water requirements without rainfall and stay within the hydraulic capacities of the sprinkler system installed.
 - **e.** The name, address, phone, email, professional license, or certification number of the installation contractor.
 - f. Date of installation.
 - **g.** Irrigation system maintenance schedule that shall include, but is not limited to, the following:

- 1. Routine visual inspections (at least 4 per year);
- 2. Adjustments to components to keep sprinklers straight, at the right height;
- 3. Aligned and unobstructed nozzles and screens cleaned;
- 4. Filters cleaned and sensors monitored; and
- 5. Pressures and flows at the source and sprinklers are correct for original design.

F. Irrigation System Maintenance

- **a.** Repairs to all irrigation components shall be done with originally installed components, equivalent components, or those with greater efficiency.
- **b.** The operation of the irrigation system outside of the normal watering window shall be allowed for evaluating, maintaining, or repairing the system or its components.

G. Irrigation System Management

- **a.** The frequency (times per week/month) and duration (minutes/hours) of the operation of each zone shall be adjusted and operate in order to meet the water needs of the plants within each zone as a supplement to rainfall. Adjustments shall be made a minimum 4 times per year to match the seasonal changes of the plants and the operational restrictions.
- **b.** It is recommended that the schedule be adjusted monthly, or controllers be properly installed and programmed to automatically adjust to maximize water savings.

Broward County Amendments to Chapter 29, Subsection 2903 of the 2023 Florida Building Code, Residential, 8th Edition

- Stricken through text are deletions from the Florida Building Code, Residential, 8th Edition.
- <u>Underscored text</u> are additions to Florida Building Code, Residential, 8th Edition.

TABLE P2903.2 MAXIMUM FLOR RATES AND CONSUMPTION FOR PLUMBING FIXTURES, AND FIXTURE FITTINGS ^b AND APPLIANCES

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY
Lavatory faucet	2.2 <u>1.5</u> gpm at 60 psi
Shower head ^a	<u>2.0</u> 2.2 gpm at 80 psi
Sink faucet	2.2 gpm at 60 psi
Water closet	1.6 <u>1.28</u> gallons per flushing cycle
Dishwasher (Residential)	<u>6.5 gallons per cycle or less (Energy</u> <u>Star/Watersense Certified) (c)</u>
Washing Machine	<u>Water factor or 8 or lower (Energy</u> <u>Star/Watersense Certified) (c)</u>

For SI: 1 gallon per minute = 3.785 L/m.

1 pound per square inch = 6.895 kPA.

- a. A handheld shower spray is also a shower head.
- b. Consumption tolerances shall be determined from referenced standards.
- c. <u>Water factor in gallons per cycle per cubic foot</u> <u>Exception: All fixtures, fittings and appliances with U.S. Environmental Agency WaterSense® (EPA)</u> <u>Label</u>

2023 Florida Building Code, Residential, 8th Edition

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Section R4501.16 Electrical

Electrical equipment wiring and installation, including the bonding and grounding of pool components, shall comply with Chapter 27 of the Florida Building Code, Building. Outlets supplying pool pump motors connected to single-phase 120-volt through 240-volt branch circuits, whether by receptacle or by direct connection, and outlets supplying other electrical equipment and underwater luminaires operating at voltages greater than the low voltage contact limit, connected to single-phase, 120-volt through 240-volt branch circuits, rated 15 or 20 amperes, whether by receptacle or by direct connection, shall be provided with ground-fault circuit interrupter protection for personnel.

Section R4501.16.1 Maximum Voltage

The maximum voltage for each luminaire in any private swimming or bathing pool shall not exceed the Low Voltage Contact Limit, which is defined as a voltage not exceeding the following values:

- (1) 15 volts (RMS) for sinusoidal alternating current.
- (2) 21.2 volts peak for nonsinusoidal alternating current.
- (3) 30 volts continuous, direct current.
- (4) 12.4 volts peak for direct current that is interrupted at a rate of 10 to 200 Hertz. The maximum incandescent lamp size shall be 300 watts.

Broward County Amendments to Chapter 3, Subsection 307.2 of the 2023 Florida Building Code, Mechanical, 8th Edition

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SECTION 307 CONDENSATE DISPOSAL

Section 307.2 Evaporators and cooling coils.

Condensate drain systems shall be provided for *equipment* and *appliances* containing evaporators or cooling coils. Condensate drain systems shall be designed, constructed, and installed in accordance with Sections 307.2.1 through 307.2.5.

Exception: Evaporators and cooling coils that are designed to operate in sensible cooling only and not support condensation shall not be required to meet the requirements of this section.

Section 307.2.1 Condensate disposal.

Condensate from all cooling coils and evaporators <u>of equipment served by an onsite</u> <u>cooling tower in a building or structure wherein the aggregate cooling capacity of the</u> <u>equipment exceeds 65,000 Btu/hr shall be collected and conveyed from the drain pan</u> <u>outlet and discharged to the cooling tower. Where an on-site cooling tower is not</u> <u>installed, the condensate from all cooling coils and evaporators</u> shall be conveyed from the drain pan outlet to an *approved* place of disposal. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than one-eighth unit vertical in 12 units horizontal (1-percent slope). Condensate shall not discharge into a street, alley, or other areas so as to cause a nuisance.

Exceptions:

1. Condensate from cooling coils and evaporators is not required to be collected and conveyed to an on-site cooling tower, provided 1.1 through 1.3 are met:

<u>1.1 The equipment comprises 10% or less of the total capacity of the cooling tower</u> system,

1.1 The equipment is located in an isolated or remote area,

1.2 The size of the equipment is 65,000 Btu/hr or less.

2. In existing buildings, condensate may be collected and conveyed to a cooling tower or discharged to an approved place of disposal.

Broward County Amendments to Subsection 908.3 and Chapter 15 of the 2023 Florida Building Code, Mechanical, 8th Edition

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CHAPTER 9 SPECIFIC APPLIANCES, FIREPLACES, AND SOLID FUEL-BURNING EQUIPMENT

SECTION 908 COOLING TOWERS, EVAPORATIVE CONDENSERS, AND FLUID COOLERS

Section 908.3 Location

Cooling towers, evaporative condensers, and fluid coolers shall be located to prevent the discharge vapor plumes from entering occupied spaces. Plume discharges shall be not less than 5 feet (1524 mm) above or 20 feet (6096 mm) away from any ventilation inlet to a building. Location on the property shall be as required for buildings in accordance with the Florida Building Code, Building.

Section 908.3.1 Sitting of cooling towers shall comply with Section 7.2.1 of ASHRAE 188-2021. Exception: The replacement of existing cooling towers on previously permitted and approved locations.

CHAPTER 15 REFERENCED STANDARDS

ASHRAE	American Society of Heating, Refrigera and Air-Conditioning Engineers, Inc. 1791 Tullie Circle, NE Atlanta, GA 30329	ating
Standard Reference Number	Title	Referenced in Code Section Number
ASHRAE—2021	ASHRAE Fundamentals Handbook	603.2
15—2019	Safety Standard for Refrigeration Systems	1101.6, 1105.8, 1108.1
34—2019	Designation and Safety Classification of Refrigerants	202, 1102.2.1, 1103.1
62.1—2019	Ventilation for Acceptable Indoor Air Quality	403.3.1.1.2.3.2
170—2017	Ventilation of Health Care Facilities	407
ANSI/AMCA 210- ANSI/ASHRAE 51—16	Laboratory Methods of Testing Fans for Aerodynamic Performance Rating	403.3.2.4
<u>188-2021</u>	<u>Legionellosis:</u> <u>Risk Management for</u> Building Water Systems	<u>908.3.1</u>

Broward County Amendments to Chapter 9, Subsection 908.8 of the 2023 Florida Building Code, Mechanical, 8th Edition

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CHAPTER 9 SPECIFIC APPLIANCES, FIREPLACES, AND SOLID FUEL-BURNING EQUIPMENT

SECTION 908 COOLING TOWERS, EVAPORATIVE CONDENSERS, AND FLUID COOLERS

Section 908.8 Cooling Towers

Cooling towers, both open-circuit and closed-circuit type, and evaporative condensers shall comply with Sections 908.8.1 and 908.8.2 through 908.8.3.

Exception: Cooling water tower systems utilizing reclaimed water for the total amount of makeup water are exempt from the provisions of Sections 908.8.1 through 908.8.3 Florida Building Code.

Section 908.8.1 Conductivity-or and flow-based control of cycles of concentration. Cooling towers and evaporative condensers shall include controls that automate system bleed based on conductivity, fraction of metered makeup volume, metered bleed volume, recirculating pump run time, or bleed time. <u>New cooling towers, and evaporative</u> condensers, including replacements, shall be operated with conductivity controllers, as well as make-up and blowdown (bleed off) meters, and shall achieve a minimum of 8 cycles of concentration.

Section 908.8.2 Drift eliminators. Cooling towers and evaporative condensers shall be equipped with drift eliminators that have a maximum drift rate of 0.005 percent of the circulated water flow rate as established in the equipment's design specifications 0.002% of the recirculated water volume for counterflow towers and 0.005% of the recirculated water flow for crossflow towers.

Section 908.8.3 An affidavit of compliance demonstrating compliance with section 908.8.1 Florida Building Code, Mechanical, shall be submitted by the property manager/owner to the local water provider every 12 months following system installation. The affidavit shall be signed by the service provider and include all dates of service within the reporting period and verified system operation at a minimum of 8 cycles of concentration.

Section 3



Broward County Board of Rules and Appeals

1 N. University Drive Suite, 3500B, Plantation, FL 33324 broward.org/CodeAppeals | 954-765-4500 | rulesboard@broward.org

TO: Members of the Broward County Board of Rules and Appeals

FROM: Chief Energy Code Compliance Officer

DATE: November 9, 2023

RE: Proposed updated BORA Commercial and Residential Energy Guidelines (Performance Option) for the 8th Edition (2023) of the Florida Building Code (FBC)

Recommendation

That BORA adopt by vote the updated BORA Commercial Energy Guidelines (Performance Option) and the BORA Residential Energy Guidelines (Performance Option) of the 8th Edition (2023) Florida Building Code, Energy Conservation.

The BORA Energy Guidelines have been reviewed and supported by the Energy Conservation Committee.

Reasons

These updated guidelines include the amendments of the (2023) Florida Building Code, Energy Conservation. The guidelines are a helpful tool for building officials to adopt as part of their plan review and inspection processes as an aid to assign duties and assure compliance. The Florida Building Code Energy Conservation administrative chapters do not designate which discipline-specific code official will review energy compliance reports, building plans, and inspect specific items.

Additional Information

Please see the attached BORA Commercial and Residential Energy Guidelines (Performance Option).

Respectfully Submitted,

. L. Como unth &

Timothy de Carion



Board of Rules and Appeals

Commercial Energy Guidelines

C401.2 (3): FBCEC Total Building Performance Compliance Option Compliance with Sections C402.5, C403.2, C404, C405.2, C405.5, C407, and C408

> Energy Conservation Eighth Edition (2023)

> > Effective: xx/xx/xxxx

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Overview

To obtain uniform energy code enforcement in commercial buildings in Broward County, the Energy Conservation Committee has developed guidelines to aid jurisdictions in determining which discipline-specific plans examiner and inspector enforce certain sections of the Florida Building Code, Eighth Edition (2023) Energy Conservation. The following code sections regarding enforcement duties are as stated:

R103.3 & C103.3 Examination of documents.

The code official (plans examiner) shall examine or cause to be examined the accompanying construction documents and shall ascertain whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances.

R103.3.1 & C103.3.1 Approval of construction documents.

When the code official (chief inspector or plans examiner) issues a permit where construction documents are required, the construction documents shall be endorsed in writing and stamped, "reviewed for code compliance."

R104.1 & C104.1 General

Construction or work for which a permit is required shall be subject to inspection by the code official (inspector) or their designated agent, and such construction or work shall remain accessible and exposed for inspection purposes until approved.

The Basis for the Guidelines:

The Florida Building Code, Eighth Edition (2023) Energy Conservation for new and existing buildings has designated that the code official (building official) is responsible for both the construction document and construction inspection approval.

Unfortunately, the Florida Building Code Energy Conservation administrative chapters do not designate which discipline-specific plans examiner and inspector will review compliance documents and building plans and which inspector will enforce specific items for code compliance found in the Energy Conservation Code. Subsequently, uniformity needs to be improved in enforcing the energy code, which created confusion among code officials over which specific disciplines will enforce certain code provisions.

The building official or code official for energy code purposes shall be defined as the officer or other designated authority having jurisdiction charged with the administration and enforcement of this standard or a duly authorized representative. Broward County is unique in that we have individual certified plan review and inspection personnel for each discipline and that a multi-discipline code official is not the norm.

This guide can be used as a tool for the Building Official to determine which discipline-specific code official will review and inspect specific sections of the Energy Code for code compliance to address those issues. This guide shall not prevent any certified code official (plans examiner or inspector) from issuing a correction notice for any Energy Code deficiency found in another discipline if they notify the Chief Inspector of that discipline of the correction notice.

These guidelines are minimum checklists. The local AHJ may have additional checklist items.

Building Code Administrators Checklist

Plan	Review	Code Section
Scop	e and Administrative	Chapter 1
	 The building official or designated agent shall verify that the Building Envelope, HVAC, Service Water Heating, Power, Lighting, and Other Equipment shown on the plans have been reviewed for energy code compliance and match the energy compliance report. The building official or their designated agent shall sign the code compliance report stating that the plans have been reviewed for all disciplines and will be inspected according to the Florida Building Code Energy Conservation. (The building department may use Appendix A as a compliance tool.) 	C103.3.1 CH-1 107.3 C101.5.1
	2. The building official is authorized to accept inspection reports in whole or in part from either individual as defined in Section 553.993(5) or (7) of the Florida Statutes (energy auditor or energy rater) or third-party inspection agencies not affiliated with the building design or construction for energy code compliance.	C104.4
Certi	icate of Occupancy	Chapter 1
	3. Buildings that require commissioning according to Section C408.2 shall not be considered acceptable for final inspection pursuant to Section C104.2.6 until the code official has received a letter of transmittal from the building owner acknowledging that the building owner or owner's authorized agent has received the Preliminary Commissioning Report.	C408.2.4.1
	 When commissioning is required, the building official shall require a review of the Preliminary Commissioning Report to identify deficiencies found during testing that violate the code. (Appendix E may be used as a cover page to ensure a complete Preliminary Commissioning Report.) 	C408.2.4.2
	 The final commissioning report shall be provided to the owner and to the building department within 90 days of the date of receipt of the certificate of occupancy. 	C408.2.5 C408.3.2

Administrative Checklist

All Disciplines

Plan	Review	Code Section
Scop	e and Administrative	Chapter 1
	 New commercial buildings shall comply with the Florida Building Code 8th Edition (2023) Energy Conservation. Additions to buildings shall be considered new construction. 	C101.2 C502.1
	2. Construction documents shall indicate the energy compliance path selected from C401.2	C103.2 (1)
	3. Existing buildings shall be classified as exempt, except those defined as renovated buildings in which the total work exceeds 30% of the value of the structure. Buildings with a change of occupancy type or unconditioned buildings to which comfort cooling is added are not exempt. Buildings specified in Sections C101.4.2.1 through C101.4.2.4 are exempt.	C101.4.2 C202 Renovated Building
	4. An existing building or portion thereof shall not be altered to become less energy efficient.	EBC701.2
	5. The complete energy compliance report shall be provided. Forms generated from computer software approved by the Florida Building Commission shall show a <i>Pass</i> for all calculated disciplines.	C101.5.1
	 6. The design professional responsible for the design of the building lighting, electrical, mechanical, plumbing systems, and the building shell shall certify compliance with the code by signing the energy code compliance form. Note: The signature date shall be dated after the plan date to ensure compliance with current plans. 	C103.1.1.1.2
	 The building official shall have the authority to approve a permit for part of the energy conservation system (such as a shell permit). Adequate information and detailed statements listing all code requirements must be submitted with this permit. The permit holder shall proceed at their own risk without assurance that the permit to complete will be granted. Note: All spaces inside a shell building shall be considered conditioned spaces at the time of construction, regardless of whether the a/c equipment is installed unless approved by the building official. 	C103.3.3
	8. Changes to specified equipment made during the construction process that do not match the plans and energy compliance report shall be resubmitted and approved as amended.	C103.4
Commissioning		
	9. Plans shall indicate provisions for commissioning and completion requirements when required, according to Section C408.2.	C408
	10. The preliminary commissioning report shall be reviewed by a code official before final inspection. The itemization of deficiencies found during testing shall be included in the report, and corrective measures used or proposed. (Appendix E cover page checklist may be used.)	
	11. Construction documents shall have a note on the plans that the building owner or owners authorized agent shall receive within 90 days of the day of receipt of the certificate of occupancy of the following items:	C408.2.5 C408.2.5.3 C408.2.5.4
	Equipment Drawings Maintenance Manuals Testing Report	:
	12. The building shall not be occupied until documentation and verification of the installation and proper operation of all controls when commissioning is required. A letter signed by the owner or owner's representative acknowledging receipt of the Preliminary Commissioning report is required. (Appendix E cover page checklist may be used.)	C408 C104.2.6

BORA Structural Checklist

Plan	Review	Code Section
Scop	e and Administrative	Chapter 1
	1. The administrative checklist on page #5 has been completed.	
	2. The plans shall show in detail all the pertinent energy data and features of the building, including but not limited to the following:	C103.2
	Insulation materials and their R-values. (S-1)	
	Fenestration U-factor, solar heat gain coefficient (SHGC), and visible transmittance (VT) shall be shown. [Appendix B may be used for compliance. (S-2)]	
	Air leakage sealing details.	
Gene	eral Requirements	Chapter 3
	3. The U-factor, SHGC, VT, and air leakage rate for all manufactured fenestration products shall b determined by an accredited, independent laboratory and certified and labeled by the manufacturer or given default values in the tables. [See Appendix C (<i>S</i> -2).]	e C303.1.3
Build	ling Thermal Envelope	C402
	4. Low-sloped roofs on newly conditioned buildings in climate zone1 (Broward County) shall have a minimum tested solar roof reflectance and thermal emittance per Table C402.3 (S-3)	e C303.1.5 C402.3
	5. Roof insulation (as part of the envelope) shall not be on a suspended ceiling with removable ceiling panels. (Insulation installed for sound and not part of the thermal envelope is allowed.	C402.2.2
	6. The entire building thermal envelope shall be designed and constructed with a continuous air barrier and identified on the construction documents.	C103.2.1 C402.5.1
	7. Weather seals shall be installed on all loading dock/cargo doors to separate conditioned and unconditioned spaces. See Table C402.5.2	C402.5.4 C402.5.6
	8. Where unsealed or vented cavities occur over conditioned spaces, the ceiling shall be considered the pressure envelope of the building. Ceilings with drywall may be an air barrier but dropped acoustical tile ceilings may not. See the air barrier definition in C202.	C402.5.9
Total Building Performance		C407
	9. The roof or ceiling that functions as the thermal envelope shall be insulated to at least R-10. Multifamily residential roofs/ceilings shall be insulated to a minimum R-19, space permitting.	C407.2.1
Scope and Administrative Cha 1. The administrative checklist on page #5 has been completed.	C407.4.2 (1)	
		C407.4.2 (2)
٦	12. Building types and thermal blocks shall be accurately identified on the compliance report.	C407.5.2

BORA Structural Checklist (Continued)

Structural Rough Inspection	
13. A label shall be affixed to the window showing the tested U-Value, SHGC, and VT. Products lacking such a label shall be given the default values in Table C303.1.3. Installed vertical fenestration values shall be consistent with the specifications submitted with the plans. <i>(S-2)</i>	C303.1.3
14. Insulation shall be installed to the manufacturer's recommendations in a manner as to achieve the rated R-value. Insulation shall be labeled with R-value or a certificate providing R-value.	C303.2
15. The entire building's thermal envelope shall be constructed with a continuous air barrier. Penetrations in the thermal envelope shall be sealed in an approved manner.	C402.5.1

Str	uctural Final Inspection	C104.2.6
	16. The building envelope components and assemblies shall be inspected for air leakage, or the thermal envelope shall be tested. in accordance with Section C402.5.1.2.3	C402.5 C402.5.1.2.3

BORA Mechanical Checklist

Plan Review		Code Section
Scop	e and Administrative	Chapter 1
	1. The administrative checklist on page #5 has been completed.	
	 The plans shall show in detail all the pertinent energy data and features of the building, including but not limited to the following: 	C103.2
	Mechanical system design criteria	
	Equipment and system controls	
	Mechanical system and equipment types, sizes, and efficiencies	
	Economizer description	
	Fan motor horsepower (hp) and controls	
	Duct sealing, duct and pipe insulation, and location	
Build	ing Mechanical Systems	C403
	3. Design heating and cooling loads shall be in accordance with ANSI/ASHRAE/ACCA Std. 183 or ACCA Manual N, or an approved equivalent. Design loads shall be attached to the code compliance form. A signed and sealed summary sheet designed by a licensed engineer may be submitted in lieu of the complete calculation but must show the required information.	C403.2.1
	4. The output capacity of the cooling and heating equipment shall not be greater than the loads calculated. The equipment selected shall be as small as possible within available equipment options. Stand-by (backup) equipment and duplicate sequenced load systems are exempt from this section. Living spaces in commercial buildings shall be sized using residential standards in accordance with Section R403.7.1.1 and exceptions.	C403.2.2
	5. HVAC equipment shall meet the minimum efficiency requirements and be verified through certification by an approved program or equivalent. (AHRI or Manufacturer)	C403.2.3
	6. Cooling towers shall meet the minimum performance requirements in tables.	C403.2.3
	7. Specific HVAC system controls shall be provided for temperature, setpoint overlap, off-hour controls, shutoff dampers, fan control, economizers, and VAV systems.	C403.2.4
	 AMCA-500D tested, labeled, and approved motorized or gravity shutoff dampers shall be provided on outdoor air intakes and exhaust openings. 	C403.2.4.3
	9. Group R-1 (Hotels) having over 50 guest rooms shall have controls (such as a card key system) to control temperature and ventilation in unoccupied rooms.	C403.2.4.8
	10. Demand control ventilation (DCV) (such as Carbon Dioxide monitors) is required in spaces over 500 sq. ft. and an average occupancy of 25 or greater per 1000 sq. ft. of floor area. See system requirements and exceptions.	C403.2.6.1
	11. Enclosed automobile parking garages shall have carbon monoxide detectors applied in conjunction with nitrogen dioxide detectors to automatically reduce ventilation to at least 50% capacity or intermittently operate fans for 20% of the occupied time. Detection controls and alarms shall override reductions. Exhaust systems under 8000 cfm and power ratios exceeding 1125 cfm/hp are exempt.	C403.2.6.2
	12. Where the total exhaust of all kitchen hoods is greater than 5,000 cfm, each hood shall be a factory-built commercial exhaust hood listed in accordance with UL 710. One make-up air requirement option (like DCV) shall be selected. (See exceptions)	C403.2.8

BORA Mechanical Checklist (Continued)

	Performance Pathway Only	
Plan Review		Code Section
Building Mechanical Systems		C403
	13. Duct insulation shall meet the minimum R-value.	C403.2.9.1
	14. Space shall be provided adjacent to all mechanical components that form the air distribution system, including air handling units. (a minimum of (4) four inches is sufficient)	C403.2.9.3.3
	15. Cavities of a building shall not be used as a return air plenum unless the roof deck is insulated to a minimum of R-19. Roof insulation values shall be verified by the designer.	C403.2.9.4
	16. Ductwork shall be sized and designed with engineering standards. Sizing shall be room by room based on loads, static pressure, length, and friction loss. ACCA Manual-D or Equiv.	C403.2.9.5
	17. Air-handling units shall not be allowed in attics as defined in commercial buildings. Air handlers must be located within the thermal envelope of the building and cannot be located immediately below an uninsulated roof. (M-1)	C403.2.9.6
	18. Heating and cooling piping shall be insulated with values listed in Table C403.2.10 except where listed in this code section.	C403.2.10
	19. Low-capacity ventilation/exhaust fans less than 1/12 hp shall meet the efficiency requirements in Table C403.2.12.7. Intermittent hood and dryer fans are exempt.	C403.2.12.7
	20. Refrigeration systems shall meet the minimum performance requirements.	C403.2.14
	 Heating and cooling controls shall be installed on operable openings to the outdoors that are larger than 40 square feet in area. (See exceptions) 	C403.6 C402.5.11 C402.5.11.1
Total Building Performance C40		
	22. The input data report from the approved software shall be generated simultaneously with the compliance report to verify each entry into the software and match the plan.	C407.4.2 (2)
Syst	System Commissioning	
	23. Construction documents shall indicate provisions for commissioning and completion when the total cooling equipment capacity exceeds 480,000 Btu/h (40 tons). The HVAC units for dwelling units or sleeping units are to be excluded from the total Btu/h.	C408.2
	24. Construction documents shall require a written test and balance report to be provided to the owner or his representative for conditioned buildings with a total area exceeding 5,000 sq. ft. Buildings with cooling systems of 65,000 Btu/h or less per system are exempt from these requirements. (See building definition) (M-2)	C408.2.2
	25. Total building envelope pressurization shall be either neutral or positive to prevent excess infiltration of latent load. The kitchen hood exhaust shall be sized to prevent excessive depressurization. An air balance schedule totaling all airflow is needed to show compliance.	C408.2.2.1
Me	chanical Rough Inspection	C104.2.4
	26. Duct and pipe insulation shall be installed according to the manufacturer's instructions.	C303.2
	27. Duct and pipe insulation shall meet the minimum R-value specified. (See exceptions)	C403.2.9.1.1 C403.2.10

BORA Mechanical Checklist (Continued)

Mechanical Rough Inspection		C104.2.4
	28. Duct insulation shall be protected from damage and be sealed. Additional insulation shall be provided when the minimum insulation is insufficient to prevent condensation. <i>(M-3)</i>	C403.2.9.1.2 C403.2.9.1.3
	29. High-pressure duct systems designed to operate at pressures greater than 3-inch water gauge (4-inch water gauge pressure class) shall be tested for leakage per Table C403.2.9.2	C403.2.9.2
	30. All ducts and building cavities in the air distribution system shall be sealed.	C403.2.9.3
	31. All air distribution system components shall be mechanically fastened to secure the sections in addition to a seal. A clinching strap used on flex duct systems is not a sealing method.	C403.2.9.3.1 C403.2.9.3.6
	32. Terminal fittings (such as boot cans) and intermediate fittings shall be sealed with an approved closure system to provide an air barrier. Closure systems shall use the manufacturer's instructions or industry installation standards where more restrictive.	C403.2.9.3 C403.2.9.3.2 C403.2.9.3.4
	33. Air distribution systems and hydronic systems shall have means to balance air and water systems to NEBB, AABC, or equivalent standards. Buildings with cooling systems of 65,000 Btu/h or less per system are exempt. (See building definition) <i>(M-2)</i>	C408.2.2.1 C408.2.2.2
Mec	hanical Final Inspection	C104.2.4
	34. Equipment model numbers and efficiency ratings of HVAC equipment shall be verified through certification under an approved certification program. (AHRI) or equivalent.	C403.2.3
	35. Motorized or gravity shutoff dampers shall be installed on outdoor air intakes and exhaust openings. Dampers shall close when the system or space is not in use. <i>(M-4)</i> .	C403.2.4.3
	36. Mechanical closets/equipment rooms shall be sealed. All penetrations shall be sealed with an approved closure system. Wall and ceiling passageways shall be framed and sealed.	C403.2.9.2
	 Insulation exposed to weather shall be protected from damage by sunlight, moisture maintenance, and wind. Adhesive tape shall not be used on pipe insulation. 	C403.2.9.1.2 C403.2.10.1
	38. Refrigeration systems, commercial refrigerators/freezers, and walk-in coolers/freezers shall meet the performance requirements in Tables C403.2.14.1(1) through C403.2.12.2(3).	C403.2.14
Syste	em Commissioning	C408
	39. Systems serving zones exceeding 5000 sq. ft. shall have the air distribution system tested, adjusted, and balanced by a licensed engineer, company, or individual holding a current certification from a recognized testing and balancing agency. Buildings with cooling systems of 15 tons or less per system may be tested and balanced by the mechanical contractor.	C408.2.2
	40. Air distribution systems shall be tested, adjusted, and balanced to be within 10% or less as specified by the designer of record per NEBB, AABC, or equivalent procedures.	C408.2.2.1
	41. Hydronic systems shall have the means to balance and shall be balanced for pumps (>5 hp).	C408.2.2.2
	42. Functional performance testing of equipment and controls shall be witnessed by a licensed design professional, electrical engineer, mechanical engineer, or approved agency. The reporting commissioning professional shall be present for any functional performance tests being conducted.	C408.2.3
	43. Access to air-balancing dampers and hydronic balancing valves shall be provided.	M306.1

BORA Electrical Checklist

Plan Review	Code Section
Scope and Administrative	Chapter 1
1. The administrative checklist on page #5 has been completed.	
2. The plans shall show in detail all the pertinent energy data and features of the building, including but not limited to the following:	C103.2
Lighting fixture schedule with wattage	
Control Narrative	
Location of daylight zones on floor plans	
Efficiency of installed ceiling fans and electrical equipment	C402.5.8
Building Envelope Requirements	C402
Air Leakage	C402.5
3. Air barriers shall be maintained and sealed for all light fixtures and other electrical equipment, electrical and communication boxes, conduits, cables, etc., when they penetrate the thermal envelope.	C402.5.1.1(4) C402.5.1.1 (5)
4. Recessed lighting installed in the thermal envelope shall be:	C402.5.8
IC Rated Labeled <2.0 CFM leakage Sealed with a gasket or caulk per man	nufacturer
Building Mechanical Systems	C403
5. Large-diameter ceiling fans shall be tested and labeled with AMCA230 and meet the efficiency requirements in Table C403.2.12.6 and Section C403.2.12.6.1	C402.5.8
Electrical Power and Lighting Systems	C405
6. Lighting for dwelling units in multifamily buildings shall comply with residential Section R404.1.	C405.1
7. Walk-in coolers shall have lighting with an efficacy of not less than 40 lumens per watt and have a vacancy sensor. (Note: IP65 Rating for wet locations and sealed conduits are required)	C405.1.1
Lighting Controls	
8. The lighting control narrative shall be shown on the plans. The design professional, not the plan reviewer, shall declare one of the two compliance options of lighting control specified in Section C405.2(1) or C405.2(2).	C405.2
9. The light fixtures shall be compatible with the control devices.	C303.2
Occupant Sensor Controls	
10. The floor plans shall show the location of each occupancy sensor in the following areas:	C405.2.1
Conf./Mtg. Copy/Print Lounges/Break Enclosed Office	ces
Open-Plan Offices Restrooms Storage Locker	
Warehouse Storage Corridors (see #13) Classroom Enclosed Space	ces <300 sq. ft.
11. Warehouses shall have occupant sensors in each aisleway and separately in open areas.	C405.2.1.2

BORA Electrical Checklist (Continued)

	12. Open-plan office areas greater than 300 sq. ft. shall have separate control zones not greater than 600 sq. ft.	C405.2.1.3
	13. Corridor lighting with occupancy sensors shall reduce lighting to 50% power after 20 minutes. (See exceptions)	C405.2.1.4
Time	e Switch Controls	
	14. Each area not provided with occupancy sensor controls mentioned in C405.2.1 shall have a time switch controls and manual controls. (See exceptions)	C405.2.2
Ligh	t Reduction Controls	
	15. General lighting shall have manual light reduction controls and are required in spaces without occupancy sensor controls as specified in accordance with C405.2.3.1 (See exceptions)	C405.2.3
Day	ight Responsive Controls	
	16. Daylight responsive controls shall be provided to control general lighting within shown daylight zones when lighting in those zones exceeds 150 watts. (See exceptions)	C405.2.4
Spec	ial Application Controls	Code Section
	 Specific application lighting shall have separate manual controls and be provided with an occupancy sensor or time switch controls for the following: 	C405.2.5(1)
	Display/Accent Display Cases Task Lighting for S	ale
	Exhibits	
	18. Sleeping units in hotels shall have a control device (such as a card key system) to turn off lights and switch receptacles within 20 minutes after all occupants have left.	C405.2.5(2)
Exte	rior Lighting Controls	C405.2.7
	19. Exterior lighting shall have daylight shutoff controls. (See exceptions)	C405.2.7.1
	20. Building facade and landscape lighting shall have an automatic shutoff.	C405.2.7.2
	21. Parking garage lighting shall have occupancy sensors or time switch controls (See exceptions)	C405.2.8
Exte	rior Lighting Power Requirements	C405.4
	22. Total connected exterior lighting power shall be calculated using Tables C405 .4.2 (1) & (2) from the software, and all lighting calculated on the input data report shall match the plans.	C405.4.1
Elec	tric Power	C405.5
	23. Commercial buildings with individual dwelling units shall have each unit separately metered.	C405.5.2
	24. Conductors for feeders and branch circuits combined shall be sized for a maximum of 5% voltage drop total.	C405.5.3
	25. Construction documents shall have a note to require the building owner to receive the following:	C405.5.4.1 C405.5.4.2
	Record drawings within 30 days Manuals	
	26. Dry-type distribution transformers shall comply with C404.6	C405.6
	27. Electric motors shall comply with C405.7	C405.7
	,,,,,,,	

BORA Electrical Checklist (Continued)

Tota	Building Performance	C407
	29. Compliance Report (Energy Calculations Software) shall be provided, and the input report shall list all the interior and exterior lighting for calculations to match the plans.	C407.4.1 C407.6.2
Elect	rical Rough Inspection	C104.2.5
	30. The inspection shall verify that the installed lighting systems, components, controls, and meters comply with the Energy Code and the approved plans.	C104.2.5
	31. When penetrating the thermal envelope, air barriers shall be maintained and sealed for all light fixtures and other electrical equipment, conduits, cables, etc.	C402.5.1
	32. Electrical and Communication boxes that penetrate the air barrier of the building thermal envelope, and that do not comply with C402.5.10.1, shall be caulked, taped, gasketed, or otherwise sealed to the air barrier element being penetrated. All openings on the concealed portion of the box shall be sealed. Where present, insulation shall rest against all concealed portions of the box. Where air-sealed boxes are installed, they shall be marked in accordance with NEMA OS 4. Air-sealed boxes shall be installed in accordance with the manufacturer's instructions.	C402.5.10 C402.5.10.1
Elect	rical Final Inspection	C104.2.6
	33. Air barriers shall be maintained and sealed for all light fixtures and other electrical equipment, junction boxes, conduits, cables, etc., when they penetrate the thermal envelope.	C402.5.1
Mair	ntenance Information and System Commissioning:	C408
	34. Prior to passing the final inspection, the licensed design professional or approved agency shall provide evidence that the lighting control system has been tested and working per the plans and manufacturer's instructions. The report shall include the results and contain a list of the disposition of deficiencies found and corrective measures proposed. (Appendix E may be used) Note: The plans may require that the contractor provide written evidence that lighting control systems have been tested by either the electrical contractor, the lighting fixture manufacturer's representative, or the control system representative.	C408.3 C408.3.1 C408.3.2
	35. Building operation and maintenance documents shall be provided to the owner for all electrical power, lighting control systems, etc., as per C408.1. (Appendix E may be used)	C408.1 C408.3.2.2

BORA Plumbing Checklist

Pla	n	Review	Code Section
Sc	op	e and Administrative	Chapter 1
	[1. The administrative checklist on page #5 has been completed.	
	[2. The plans shall show in detail all the pertinent energy data and features of the building, including but not limited to the following:	C103.2
[Insulation materials and their R-Values	
[Service water heating system and equipment types, sizes, and efficiencies	
		Equipment and system controls	
De	fin	itions	Chapter 2
		lating Hot Water System: A hot water distribution system where pumps are used to circulate heated water the water-heating equipment to the fixture and back. (System has a dedicated return pipe)	C202
		and Recirculating System: A hot water distribution system where pumps prime the hot water supply piping heated water upon demand for hot water. (Uses cold-water supply pipe to prime hot water pipe)	C202
Se	rvi	ce Water Heating	C404
		3. Water-heating equipment and hot water tanks shall meet the minimum efficiency requirements of Table C404.2 and be verified through either data from the manufacturer or by an approved program. <i>(AHRI or equivalent)</i>	C404.2
		4. All supply and return recirculating hot water piping shall be insulated with the required thickness in Table C403.2.10. The first 8 feet of branch piping shall be insulated.	C404.4
		5. Heated water supply piping shall be limited in length or water volume according to Table C404.5.1. When maximum lengths differ from plumbing code, the more stringent applies.	C404.5 CH-1-102.1
		6. Heated water circulating systems shall have accessible controls, sensors, and pumps. Manual controls shall be readily accessible without requiring the removal of any obstruction.	C404.6
		7. Heated Water Circulation Systems shall have controls that start the pump based on a demand for hot water. The controls shall also turn off the pump when the hot water temperature is at the desired temperature and there is no demand for hot water.	C404.6.1
		8. Demand Circulation Systems shall have controls to comply with one of the following three options:	C404.7
	_	Start the pump upon receiving a signal from the user of a fixture.	
		Start the pump with a device sensing the presence of the user.	
[Start the pump with a device that senses the presence of flow to a fixture or appliance.	
		A separate control is also required to limit the water entering the cold-water supply to 104°.	
То	tal	Building Performance	C407
		9. The input data report from the approved software shall be generated simultaneously with the compliance report to verify each service water heating entry into the software.	C407.4.2.2
Plu	ım	bing Rough Inspection	C104.2.3
	[10. The rough inspection shall verify the type and R-value of the pipe insulation.	C404
	[11. Heated water supply piping shall comply with length (C404.5.1) or water volume (C404.5.2).	C404
Plu	ım	bing Rough Inspection	C104.2.3
	[12. Water heating equipment model numbers shall match the approved plans.	C404.2
	[13. Required pipe insulation and insulation protection shall be installed.	C404.4
	[14. Required hot water pump controls shall be installed and accessible.	C404.6
M	ain	tenance Information and System Commissioning	C408
		15. The Service Water Heating Control System shall be tested so that controls, components, equipment, and systems are calibrated, adjusted, and working according to plans and specs.	C408.2.3.2 15

APPENDIX A

Commercial Energy Code Compliance Review Form

PERMIT #

ADDRESS _____

A review of the plans and specifications covered by this compliance report indicates compliance with the
Florida Energy Conservation Code.

DISCIPLINE	NAME	<u>SIGNATURE</u>	DATE
STRUCTURAL			
MECHANICAL			
PLUMBING			
ELECTRICAL			

APPENDIX B

Commercial Fenestration Product Rating Submittal Form

In accordance with the Florida Energy Conservation Code C303.1.3, this form can be used as a tool for the submittal process to document the proposed energy product rating for windows, doors, and skylights.

Recommended for Review:

- Copy the approved input report from the Energy Calculations showing each fenestration design rating (U-value, SHGC, and VT) for all fenestration in the building.
- A list of the NFRC Certified Product Directory number of each window showing the U-Value, SHGC, and VT on the attached form. These numbers may be found on the NFRC website: <u>https://search.nfrc.org/search/searchDefault.aspx.</u>

Window	*NFRC Directory Number	Description	U-Value	SHGC	VT
Number	Number				
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

Window Number	*NFRC Directory Number	Description	U-Value	SHGC	VT
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
31					
33					
34					
35					
36					
37					
38					

Notes:

- Products not listed in the NFRC directory shall be tested by an accredited, independent laboratory in accordance with FBCEC C303.1.3. Products not tested and lacking certification and labeling shall be assigned a default rating from the energy tables.
- Products submitted that do not match the approved Energy Calculations shall require a revised energy compliance report or window submittal per FBCEC C103.4.
- *Products not tested and labeled use the default tables in C303.1.3.

Appendix C

TABLE C303.1.3(1) DEFAULT GLAZED FENESTRATION U-FACTORS

FRAME TYPE	SINGLE	DOUBLE	SKYL	IGHT
	PANE	PANE	SINGLE	DOUBLE
Metal	1.20	0.80	2.00	1.30
Metal with Thermal Break	1.10	0.65	1.90	1.10
Nonmetal or Metal-Clad	0.95	0.55	1.75	1.05
Glazed Block			0.60	

TABLE C303.1.3.(2) DEFAULT OPAQUE DOOR U-FACTORS

DOOR TYPE	U-FACTOR
Uninsulated Metal	1.20
Insulated Metal (Rolling)	0.90
Insulated Metal (Other)	0.60
Wood (Other	0.50
Insulated, nonmetal edge, max 45% glazing. Any glazing double pane	0.35

<u>TABLE C303.1.3 (3)</u> <u>DEFAULT WINDOW, GLASS DOOR, AND</u> <u>SKYLIGHT SHGC AND VT</u>

	SINGLE	GLAZED	DOUBLE	GLAZED	GLAZED
	CLEAR	TINTED	CLEAR	TINTED	BLOCK
SHGC	0.8	0.7	0.7	0.6	0.6
VT	0.6	0.3	0.6	0.3	0.6

Appendix D

Structural Notes

S-1. The plans shall specify what type and R-value of insulation will be installed. It is not acceptable to have comments on the plan details that indicate: "*See energy calculations*." Baffles are required for blown-in insulation to keep the vents from becoming blocked upon installation and drift.

S-2. Windows must be tested for energy efficiency if the compliance report does not use default values in Table C303.1.3. U-factors shall be determined in accordance with standard NFRC 100. The VT and the SHGC (Solar Heat Gain Coefficient) shall be determined in accordance with standard NFRC 200. Testing must be done by an accredited independent laboratory and then labeled and certified by the manufacturer. NFRC standards require both computer simulation and physical test results to be validated by an independent agency (IA). Energy values validated by an independent agency (IA) shall match the product's label per Florida Building Code Energy Conservation C303.1.3.

S-3. According to C402.3, for climate zone 1a, the designer of record must submit a roofing product that has been tested to give a value of:

1a) Three-year aged solar reflectance of at least 0.63 that is tested in accordance with ASTM C1549, ASTM E903, or CRRC-1 Standard.

Note: The higher the solar reflectance ratio, the better (the amount of solar energy that is reflected).

1b) Three-year aged thermal emittance of at least 0.75 that is tested in accordance with ASTM C1371, ASTM E408, or CRRC-1 Standard.

Note: The higher the thermal emittance value, the better (the more heat the roofing material emits back to the atmosphere).

Or the product must have a:

2) Solar reflectance index (SRI) of at least 75 (shall be determined in accordance with ASTM E1980) Note: The Solar Reflectance Index (SRI) is an indicator of the ability of a roof surface to return solar energy to the atmosphere. (Roofing material surfaces with a higher SRI will be cooler than surfaces with a lower SRI under the same solar energy exposure.)

Mechanical Notes

M-1. The air inside the attic can reach temperatures of over 150 degrees, far hotter than it gets outdoors. Air handler cabinets are typically insulated with R-4.2 insulation below the minimum outdoor ductwork requirements. Condensation problems are common on air handlers due to South Florida's humidity. Locating the air handlers outside the thermal envelope wastes energy and is prohibited by this section. The minimum envelope roof/ceiling insulation using the performance method of compliance is R-19 for multifamily buildings and R-10 for all other commercial buildings.

M-2. A building containing multiple tenants and occupancy types with firewalls between them may be considered multiple buildings for energy code analysis during phased construction. If each tenant has its air conditioning system divided by firewalls, that tenant may be considered one building and have its energy compliance report. Each building or tenant may be evaluated separately for energy code compliance. For example, an individual tenant in a shopping/strip mall exceeding 5000 sq. ft. shall be required to have a test and balance report of the air distribution system unless that tenant has units 65,000 or less. This requirement does not exempt systems from balancing requirements if requested by the designer of record.

M-3. Outside air ducts passing through conditioned space have the potential to sweat and condensate inside the duct due to humid conditions in Florida. The design professional should know this potential problem to prevent moisture damage to ceilings.

M-4. Failure to install and test the operation of the outside air and exhaust shutoff dampers can increase the latent load of the building, increase energy use, and affect comfort in conditioned spaces. Dampers are not required for ventilation or exhaust of unconditioned spaces or Type 1 kitchen hood exhausts.

Appendix E

Commissioning Compliance Checklist

Project Information:
Project Name:
Project Address:
Commissioning Authority:
Commissioning Plan (Section C408.2.1)
The commissioning plan was used during construction and included all items required by Section C408.2.1.
Systems adjusting and balancing have been completed.
HVAC Equipment functional testing has been executed. If applicable, deferred and follow-up testing is
scheduled to be provided on:
HVAC Controls functional testing has been executed. If applicable, deferred and follow-up testing is
to be provided on:
Economizer functional testing has been executed. If applicable, deferred and follow-up testing is scheduled
to be provided on:
Lighting Controls functional testing has been executed. If applicable, deferred and follow-up testing is
scheduled to be provided on:
Service Water Heating System functional testing has been executed. If applicable, deferred and follow-up
testing is scheduled to be provided on:
Manual, record documents, and training have been completed or scheduled.
Preliminary Commissioning Report submitted to the owner and included the itemization of deficiencies not
corrected.
I certify that the commissioning provider has provided me with evidence of mechanical, service water heating, and lighting systems commissioning in accordance with the Florida Building Code, Eighth Edition (2023) Energy Conservation.

Signature of Building Owner or Owner's Representative



Board of Rules and Appeals

Residential Energy Guidelines

R401.2 (2): FBCEC Total Building Performance Compliance Option Compliance with Section C405, and only the provisions Labeled "Mandatory" found in sections R401 through R404.

Energy Conservation Eighth Edition (2023)

Effective: xx/xx/xxxx

Overview
uilding Code Administrators Checklist
dministrative (All Disciplines)
uilding/Structural Checklist
Nechanical Checklist
ORA Envelope Leakage Test Report Checklist
lectrical Checklist
lumbing Checklist
ppendix A (Compliance Review Form)
ppendix B (Fenestration Submittal Form)
ppendix C (Fenestration Chart for Untested Windows)1
ppendix D (Notes)

Overview

To obtain uniform energy code enforcement in commercial buildings in Broward County, the Energy Conservation Committee has developed guidelines to aid jurisdictions in determining which discipline-specific plans examiner and inspector enforce certain sections of the Florida Building Code, Eighth Edition (2023) Energy Conservation. The following code sections regarding enforcement duties are as stated:

R103.3 & C103.3 Examination of documents.

The code official (plans examiner) shall examine or cause to be examined the accompanying construction documents and shall ascertain whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances.

R103.3.1 & C103.3.1 Approval of construction documents.

When the code official (chief inspector or plans examiner) issues a permit where construction documents are required, the construction documents shall be endorsed in writing and stamped "reviewed for code compliance."

R104.1 & C104.1 General

Construction or work for which a permit is required shall be subject to inspection by the code official (inspector) or their designated agent, and such construction or work shall remain accessible and exposed for inspection purposes until approved.

The Basis for the Guidelines:

The Florida Building Code, Eighth Edition (2023) Energy Conservation for new and existing buildings has designated that the code official (building official) is responsible for both the construction document and construction inspection approval.

Unfortunately, the Florida Building Code Energy Conservation administrative chapters do not designate which disciplinespecific plans examiner and inspector will review compliance documents and building plans and which inspector will enforce specific items for code compliance found in the Energy Conservation Code. Subsequently, uniformity needs to be improved in enforcing the energy code, which created confusion among code officials over which specific disciplines will enforce certain code provisions.

The building official or code official for energy code purposes shall be defined as the officer or other designated authority having jurisdiction charged with the administration and enforcement of this standard or a duly authorized representative. Broward County is unique in that we have individual certified plan review and inspection personnel for each discipline and that a multi-discipline code official is not the norm.

This guide can be used as a tool for the Building Official to determine which discipline-specific code official will review and inspect specific sections of the Energy Code for code compliance to address those issues. This guide shall not prevent any certified code official (plans examiner or inspector) from issuing a correction notice for any Energy Code deficiency found in another discipline if they notify the Chief Inspector of that discipline of the correction notice.

These guidelines are minimum checklists. The local AHJ may have additional checklist items.

Building Code Administrators Checklist

Plan	Revi	iew	Code Section
Scope and Administrative		Chapter 1	
	1.	The building official shall appoint a plans examiner to verify that all disciplines have reviewed the plans and the code compliance report for energy code compliance. The plans examiner shall sign the code compliance report stating that the plans have been reviewed by all disciplines and the plans will be inspected according to the FECC. The building department may use Appendix A as a compliance tool.	R103.3 R103.3.1 FS 553.908
Rep	ortin	g Schedule	
	2.	A reporting form shall be submitted to the local building department by the owner or owner's agent with the submittal certifying compliance with this code. Reporting forms shall be a copy of the front page of the compliance form applicable for the code chapter under which compliance is demonstrated (R405-2023). It shall be the responsibility of the local building official to forward the reporting section of the proper form to the entity representing the Florida Building Commission on a quarterly basis.	R103.1.1.2.1 R103.1.1.2.1.1
		Mail reporting form to: M. E. Rinker, Sr. School of Construction Management University of Florida PO Box 115703 304 Rinker, Third Floor Gainesville, FL 32611-5703 USA	
		OR Upload Forms to: https://coremng.dcp.ufl.edu/epi/ Note: Scan in format 300dpi or smaller.	

Certificate of Occupancy				
	3.	The building official shall require that an energy performance level (EPL) display card be completed and signed by the building qualifier that it is accurate and correct before final approval for the building for occupancy. Florida law (Section 553.9085, Florida Statutes) requires the EPL display card to be included as an addendum to each sales contract for both presold and non-presold residential buildings.	R401.3 R405.4.3 (1)	

Administrative Checklist

All Disciplines

Plar	Plan Review				
Sco	oe a	nd Administrative	Chapter 1		
	1	 New residential buildings shall comply with the Florida Building Code 8th Edition (2023) Energy Conservation. Additions to buildings shall be considered new construction. 	R101.2 R502		
	2	 Buildings defined as residential, which are three stories and less in height, shall comply with the residential energy code. Mixed-use buildings shall submit separate compliance reports. 	R101.5.1.2 R101.4.1		
	3	 Existing buildings shall be classified as exempt, except those defined as renovated buildings in which the total work exceeds 30% of the value of the structure. Buildings with a change of occupancy type or unconditioned buildings to which comfort cooling is added are not exempt. Buildings specified in Sections R101.4.2.1 through R101.4.2.4 are exempt. 	R101.4.2		
	4	. An existing building or portion thereof shall not be altered to become less energy efficient.	EBC701.2		
	5	The complete energy compliance report shall be provided. Forms generated from computer software approved by the Florida Building Commission shall show <i>Pass</i> .	R101.5.1		
	6	The building's owner, or architect, or owner/agent shall certify compliance with the Florida Energy Conservation Code by signing the prepared compliance report.	C103.1.1.2		
	7.	 Any changes that affect the energy efficiency of the building shall require revised plans and a revised energy compliance report. 	C103.4		
Per	orn	nance Alternative	R405		
	8	. The energy compliance report shall match the plans and shall comply with the following:	R405.4.2		
		The building street address and climate zone #1 shall be selected for Broward County from Table R301.1.			
		The name of the person who prepared the report and a signature are required to certify that the proposed design complies with the energy code.			
		The compliance report code version shall match the plans.			

BORA Structural Checklist

Plan	Plan Review Code Section				
Scop	e a	nd Administrative	Chapter 1		
	1.	The administrative checklist on page #5 has been completed.			
	2.	The energy compliance report shall match the plans and shall comply with the following:	R405.4.2		
		The number of bedrooms shall be shown. (Item 4)	R405.4.2		
		The solar heat gain coefficient (SHGC) of the windows. (Item 7)			
		The R-values of the floor above the garage and any entry area ceiling in a two-story home shall be shown separately. (Item 9)			
		Insulation R-values and areas of exterior walls, and adjacent walls. (Item10)			
		The R-value of the ceiling area and knee walls adjacent to the attic space. (Item 11) (M-1)			
		Reports that claim a cool roof option shall provide documentation of testing. (See Notes)	R405.7.2		
	3.	The following information shall be submitted and shown on the plans.	R103.2		
		The building's thermal envelope shall be shown.	R103.2.1		
		Air Barrier sealing details and materials used shall be shown.	R103.2(8)		
		Window schedules shall include the "NFRC tested" U-factors and SHGC values. Note: Submittals may use the Residential Fenestration Submittal Form [Appendix A (S-1)]	R103.2(2)		
		Wall sections shall show the ceiling and wall insulation and shall show design R-values.	R405.4.3(2)		
		The conditioned floor area shall be shown on the architectural plans.	R103.2(1)		
Ro	Rough Inspection		R104.2.2		
	1	• A continuous air barrier shall be installed in the exterior building's thermal envelope.	R402.4		
	2	• Windows and door jambs, framing, and skylights shall be sealed.	Table R402.4.1.1		
	3	 Ceiling and wall insulation R-Values shall match the plans. Manufacturer's instructions shall be followed, and attic vents shall not be blocked. (S-2) 	R104.2.2 R303.2		
	4	 A label shall be affixed to the window showing the tested U-Value and SHGC. These values shall match the values shown on the plans. (S-1) 	R104.2.2 R303.1.3		
Fin	al Iı	nspection			
	1	 All installed attic insulation shall have an insulation certificate posted at or near the attic's opening, and an insulation certificate shall be submitted to the AHJ. 	R303.1.1.1 R303.1.1.2		
	2	Blown or sprayed insulation shall be installed per inch according to plans. Blown insulation thickness shall be verified with markers installed every 300 sq. ft. Attic vents shall not be blocked.	R303.1.1.2.1 R402.2.3 R402.4		
	3	Access-openings, drop-down stairs, or knee wall doors to unconditioned attic spaces shall be sealed and baffled to maintain blown insulation. The attic hatch shall be insulated.	R402.2.4		
	4	 Air sealing shall be provided for the interior garage door and the walls that separate conditioned spaces from the garage area. 	Table R402.4.1.1		
	5	• Windows and door jambs, framing, and skylights shall be sealed on the exterior frame.	Table R402.4.1.1		
	e	Mechanical closets shall be sealed to prevent leakage.	R403.3.2 C403.2.9.2		

BORA Mechanical Checklist

Plan Review Columnation				
Sco	pe a	nd Administrative	Chapter 1	
	1.	The administrative checklist on page #5 has been completed.		
	2.	The energy compliance report shall match the plans and shall comply with the following:	R405.4.2	
		The site plan showing actual home orientation shall be shown. Worst-case orientations shall be accepted. HVAC load calculations shall be site-specific. (Item 5)		
		Window areas shall be shown. Sliding glass doors and opaque doors with glazing equal to or over 30% of the total area shall be included in the windows section. (Item 7)		
		The overhang effect shall be shown. (Item 7) (M-2)	R405.5.3.2	
		Ceiling areas and insulation values shall be shown. Knee walls shall be shown separately as ceiling areas. (Item 11) (M-1)		
		The R-value of ducts, surface area, and the location of the ductwork shall be shown. (Item 13)		
		Ductwork classified as "leak-free" requires a duct leakage test report and shall be required for the final inspection. See notes at bottom of the report. (Item 13)	R405.2 R405.2.3	
		The number of A/C systems, each system's efficiency rating, and the equipment's size shall be shown. (Item 14) <i>(M-5)</i>	R103.2 (6)	
		The heater type, size, and fuel source shall be shown. (Item 15)		
		Energy credits shall be shown. (Item 17) (M-3)	R405.7	
	3	The following information shall be submitted and shown on the plans.		
		The cooling and heating load calculations shall be submitted with the mechanical plans.	R403.7.1	
		The cooling equipment design capacity shall not exceed 1.15 times greater than the total calculated load. (See exceptions)	R403.7.1.1	
		Strip heaters shall be sized within 4 kW of the design requirements.	R403.7.1.2.2	
		Mechanical design criteria and controls (T-stat) shall be shown.	R103.2 (7)	
		Duct sealing methods, duct and pipe insulation values, and duct locations shall be shown.	R103.2 (8)	
		Outdoor air intakes and exhausts shall have automatic or gravity dampers and shall be shown.	R403.6	
		Replacement outdoor combustion air and tight-fitting flue dampers or doors for wood-burning fireplaces shall be shown.	R402.4.2	
Rou	Rough Inspection			
	1	Building framing cavities shall not be used as ducts or plenums.	R403.3.5	
	2	Air-handling units may only be installed in the attic if all code exceptions are met. Note: The service panel of the equipment shall be located within 6 feet of an attic access.	R403.3.6	
	3	All supply and return ducts not completely inside the <i>building thermal envelope</i> shall be insulated to a minimum of R-6. Site-wrapped supply ducts not completely inside the building thermal envelope shall be insulated to a minimum of R-8.	R405.2	
	4	Suction line refrigerant piping shall be a minimum of R-3.	R403.4	

BORA Mechanical Checklist (Continued)

Rou	Rough Inspection R104.2.4				
	5.	All ducts shall be mechanically attached. The reinforced core on flex ducts shall be mechanically attached to the duct fitting by a draw-band.	R403.3.2 C403.2.9.3.6		
	6.	All ducts shall be sealed. The reinforced lining on the flex duct shall be sealed, and the duct collar flange shall be sealed to the duct board using tape, mastic, or gasket. Note: A draw band is not a seal and is only a mechanical attachment. (M-4)	R403.3.2 C403.2.9.3.2		
	7.	The flexible duct's outer jacket (Vapor Barrier) shall be sealed to prevent condensation.	R403.3.2		
	8.	Sufficient space shall be given to install the required ceiling and wall insulation	R402.4.1.1		
	9.	Combustion air ducts shall be installed for wood-burning fireplaces.	R402.4.2		
Fina	l Ins	pection	R104.2.5		
	1.	The envelope leakage test report shall be provided to the code official. The report shall be reviewed for ventilation compliance by the mechanical department and approved before a final mechanical inspection is approved.	R402.4.1.2		
	2.	HVAC registers penetrating the thermal envelope shall be sealed to the drywall. Penetrations shall be caulked, gasketed, or otherwise sealed in a manner compatible with the construction materials and location.	R402.4.1.1		
	3.	Sufficient space (about 4 inches) shall be provided adjacent to all mechanical components of the air distribution system to ensure room for inspection, seal, and maintenance.	R403.3.2 C403.2.9.3.3		
	4.	The efficiency rating of each system shall be verified by providing certification through an approved certification program, such as (AHRI), matching the corresponding model numbers shown on the plans. <i>(M-5)</i>	R405.4.3 (2) R303.1.2		
	5.	Mechanical closets and enclosed support platforms shall be sealed to prevent leakage.	R403.3.2		
	6.	Piping insulation exposed to weather shall be protected from damage.	R403.4.1		
	7.	Tight-fitting flue dampers or tight-fitting doors shall be installed for wood-burning fireplaces.	R402.4.2		
	8.	A duct leakage test report shall be submitted when an air leakage rate other than the default leakage rate at .08 (8%) is selected on the compliance report	R405.2.3 R403.3.3		

BORA Envelope Leakage Test Report Checklist

All Disciplines

Rep	Report Review (
	1.	The envelope leakage test shall be completed before the final inspection.	R402.4.1.2		
	2.	The envelope leakage test report form from the approved software, submitted with the application for a permit, shall be used to show compliance with the code. (TR-1)	R101.5.1		
	3.	The envelope leakage test report shall have the address and permit number on the report and be completed and signed by a qualified tester.	R101.5.1 R402.4.1.2		
	4.	The method of compliance shall be indicated on the form and match the method selected when the building permit was issued. (TR-2)	R405.2.2 R401.2		
	5.	The air change design rate shall be indicated in the box provided on the test report when using the performance method. (TR-3)	R405.2.2 R405.4.2		
	6.	Leakage rates that exceed seven (7) air changes per hour shall indicate Fail.	R402.4.1.2		
	7.	Leakage rates exceeding the design rate from the compliance report shall not "Pass" even though it is under (7) air changes per hour.	R405.2.2 R402.4.1.2		
	8.	Buildings with (ACH) rates less than three (3) shall add whole-house mechanical ventilation to the building and be indicated on the test report. (TR-4)	R402.4.1.2 RBC-R303.4		
	9.	A revised mechanical plan showing compliance with the residential building code shall be provided when whole-house ventilation is required.	R103.4		

BORA Electrical Checklist

Plan	Plan Review			
Scop	oe an	d Administrative	Chapter 1	
	1.	The administrative checklist on page #5 has been completed.		
	2.	The energy compliance Report shall match the plans and shall comply with the following:	R405.4.2	
		Comfort heating and service water heating appliances using electricity shall be shown. (Item 15 & 16)	R405.4.2	
		When the energy compliance report indicates a ceiling fan energy credit. The required Energy Star fans and blade sizes shall be shown. (Item 17) (E-1)	R405.7.6 Table R405.7.6	
	3.	The following information shall be submitted and shown on the plans	R103.2	
	When the energy compliance report indicates a ceiling fan energy credit, the required fans and blade sizes shall be shown.		R405.7.6	
		The electrical floor plans shall identify all recessed luminaires installed in the building thermal envelope and show sealing details.	R402.4.5 R103.2 (9)	
		Recessed lighting shall be IC-rated and labeled as having an air leakage rate of no more than 2.0 cfm when tested in accordance with ASTM E283.	R402.4.5	
		The Luminaire Schedule shall identify the high-efficacy lamps. All permanently installed luminaires, excluding those in kitchen appliances, shall have an efficacy of at least forty-five (45) lumens-per-watt or shall utilize lamps with an efficacy of not less than sixty-five (65) lumens-per-watt.	R404.1	
Rou	gh Ir	spection		
	1.	Air-sealed electrical and communication boxes that penetrate the air barrier of the building shall be sealed to the air barrier element being penetrated. Air-sealed boxes shall be buried in or surrounded by insulation. When factory air-sealed boxes are used, they shall be marked "NEMA OS 4" and installed in accordance with the manufacturer's instructions.	R402.4.6 Table R402.4.1.1	
	2.	Thermal envelope penetrations by electrical conduits and cables in the wall top plate shall be sealed.	R402.4.1.1 Table R402.4.1.1	
Fina	Final Inspection			
	1.	Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.	R402.4.5	
	2.	Ceiling fans shall be installed per the electrical drawings.	R405.7.6	

BORA Plumbing Checklist

P	Plan Review C					
Sc	ор	e an	d Administrative	Chapter 1		
]	1.	The administrative checklist on page #5 has been completed.			
	2. The energy compliance report shall match the plans and shall comply with the following:					
] [Size and efficiency of the service water heating appliance. (Item 16)	R103.2 (5)		
		3.	The following information shall be submitted and shown on the plans.	R103.2		
] [Provide efficiency documentation for water heaters. A copy of the AHRI certificate or manufacturer's data showing the efficiency is required. Water-heating equipment installed in residential units shall meet the minimum efficiencies in Table C404.2. (<i>P-1</i>).	R405.4.3 (2) R403.5.6.2		
	Provide efficiency documentation for pool heaters. Gas and oil-fired pool and spa heaters shall have a tested minimum thermal efficiency of 82 percent. Heat pump pool heaters shall have a minimum COP of 4.					
	If a heated water circulation system is installed, it shall be provided with circulation pump controls that will both:					
Start the pump on-demand. (Button, motion detector, or timeclock)						
			Stop the pump when the desired temperature is reached.			
] [Residential pools shall meet the requirements of APSP-15 (Standard for Energy Efficiency for Residential Inground Swimming Pools and Spas).	R403.12		
R	วนยู	gh Ir	spection			
]	1.	The administrative checklist on page #5 has been completed.			
]	2.	If a heated water circulation system is installed, it shall have an accessible circulation pump. The automatic controls, temperature sensors, and manual controls shall be readily accessible for operation.	R403.5.1		
Fi	nal	Ins	pection			
		1.	Water-heating equipment model numbers and equipment efficiencies shall be verified and match the plumbing plans. (P-1)	R403.5.6.2		
]	2.	Electric, gas, and oil-type pool and spa heating equipment efficiencies shall be verified and match the plans.	R403.10		
]	3.	Gas and oil-type water heaters for permanent pools and spas shall be equipped with a vapor retardant cover on or at the water surface. A liquid cover or other means proven to reduce heat loss may be used and shall be on the job for the final inspection. Note: Heat pumps and solar-type heaters are excluded from this requirement.	R403.10.3		

APPENDIX A

Residential Energy Code Compliance Review Form

PERMIT #

ADDRESS _____

A review of the plans and specifications covered by this compliance report indicates compliance with the
______Florida Energy Conservation Code.

DISCIPLINE	NAME	<u>SIGNATURE</u>	DATE
STRUCTURAL			
MECHANICAL			
PLUMBING			
ELECTRICAL			

APPENDIX B

Residential Fenestration Product Rating Submittal Form

In accordance with the Florida Energy Conservation Code R303.1.3, this form can be used as a tool for the submittal process to document the proposed energy product rating for windows, doors, and skylights.

Recommended for Review:

- Copy of the approved input report from the Energy Calculations showing each fenestration design rating (U-value, SHGC, and VT) for all fenestration in the building.
- Include a list of each window's NFRC Certified Product Directory number showing the U-Value, SHGC, and VT on the attached form. These numbers may be found on the NFRC website: <u>https://search.nfrc.org/search/searchDefault.aspx</u>

Window Number	*NFRC Directory Number	Description	U-Value	SHGC	VT
1	Number				
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

Window Number	*NFRC Directory Number	Description	U-Value	SHGC	VT
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
31					
33					
34					
35					
36					
37					
38					

Notes:

- Products not listed in the NFRC directory shall be tested by an accredited, independent laboratory in accordance with FBCEC R303.1.3. Products not tested and lacking certification and labeling shall be assigned a default rating from the energy tables.
- Products submitted that do not match the approved Energy Calculations shall require a revised energy compliance report or window submittal per FBCEC R103.4.
- *Products not tested and labeled use the default tables in R303.1.3.

Appendix C

TABLE R303.1.3(1) DEFAULT GLAZED FENESTRATION U-FACTORS

	SINGLE	DOUBLE	SKYLIGHT		
FRAME TYPE	PANE	PANE	SINGLE	DOUBLE	
Metal	1.20	0.80	2.00	1.30	
Metal with Thermal Break	1.10	0.65	1.90	1.10	
Nonmetal or Metal Clad	0.95	0.55	1.75	1.05	
Glazed Block			0.60		

TABLE R303.1.3.(2) DEFAULT OPAQUE DOOR U-FACTORS

DOOR TYPE	U-FACTOR
Uninsulated Metal	1.20
Insulated Metal	0.60
Wood (Other	0.50
Insulated, nonmetal edge, max 45% glazing. Any glazing double pane	0.35

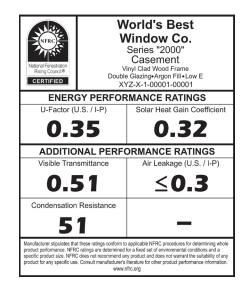
<u>TABLE R303.1.3 (3)</u> <u>DEFAULT WINDOW, GLASS DOOR, AND</u> <u>SKYLIGHT SHGC AND VT</u>

	SINGLE	GLAZED	DOUBLE	GLAZED	GLAZED
	CLEAR	TINTED	CLEAR	TINTED	BLOCK
SHGC	0.8	0.7	0.7	0.6	0.6
VT	0.6	0.3	0.6	0.3	0.6

Appendix D

Structural Notes

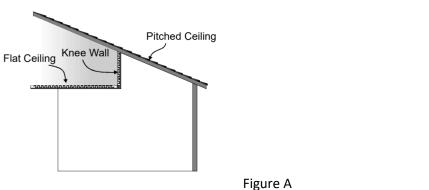
S-1. Windows must be tested for energy efficiency if the compliance report does not use default values in Table R303.1.3. U-factors shall be determined in accordance with standard NFRC 100. The VT and the SHGC (Solar Heat Gain Coefficient) shall be determined in accordance with standard NFRC 200. Testing must be done by an accredited independent laboratory and then labeled and certified by the manufacturer. NFRC standards require both computer simulation and physical test results to be validated by an independent agency (IA). Energy values validated by an independent agency (IA) shall match the product's label per Florida Building Code Energy Conservation R303.1.3.

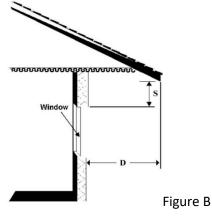


S-2 The plans shall specify what type and R-value of insulation will be installed. It is not acceptable to have comments on the plan details that indicate: "See energy calculations". Baffles are required for blown-in insulation to keep the vents from becoming blocked upon installation and drift.

Mechanical Notes

M-1 The conditioned floor area is found on the architectural plans. The ceiling areas shall match the conditioned floor area on single-story homes with a flat ceiling height throughout the home. On a two-story home, the second-floor conditioned floor area shall match this ceiling area plus any area that is only one story. "Knee walls" occur when ceiling heights change from a vaulted ceiling to a lower ceiling height. Knee walls adjacent to the attic area shall be listed separately as ceiling area on the compliance report. Knee walls shall not be shown as exterior wall areas. (See Figure A)





Appendix D (Continued)

Mechanical Notes

M-2 Overhang measurements shall match what is listed on the compliance report. Overhangs are measured in terms of "Depth" and "Separation". The "Depth" is the horizontal measure protruding from the building. The "Separation" is the vertical distance from the overhang to the top of the window. (See Figure B)

M-3 Energy credits shall be verified. The credits are indicated by abbreviations on the compliance report or statement notes at the bottom.

Examples: PSTAT- Programmable Thermostat, **RB**- Radiant Barrier, **CV**- Cross Ventilation, **WHF**- Whole House Fan, **CF**- Ceiling Fans, **HRU**- Heat Recovery Unit, **HP**- Heat Pump.

Tested "Cool Roof" roof absorption and emittance test values and a "Duct Leakage Test Report" lower than 8% default leakage are possible credits shown in the notes.

M-4 The mechanical attachment and sealing of the flexible ductwork's collar and inner core are hidden from the inspector by the insulation and vapor barrier during assembly. The tabs shall be bent over, and a draw-band shall be installed for a proper mechanical attachment. The collar flange and the inner core shall also be sealed airtight. The draw-band is not a code-approved seal for flexible ducts. Flexible duct joints shall be spot-checked for compliance with this section by having the contractor open the duct joint for visual inspection.

M-5 Certificates may be obtained by going to the AHRI Certification Directory to verify that the equipment is designed to be operated together.

Envelope Leakage Test Report Notes

TR-1 The FBC-approved software will generate an approved "Envelope Leakage Test Report" form and fill in the necessary information, such as the volume and the required air change rate specified by the designer.

TR-2 The designer of record chooses which method of energy code compliance, whether performance or prescriptive. The testing agent shall not use prescriptive standards when the designer selects the performance method of compliance.

TR-3 The design air changes per hour rate chosen by the designer of record is indicated in the box on the test report form when using the performance R405-2023 compliance software. The specified design rate is also found at the bottom of the front page of the compliance report.

TR-4 It is the code official's responsibility to ensure this box is checked when the air change rate is less than three (3) air changes per hour. This selection shall trigger the mechanical designer of record to determine which ventilation method they use to increase ventilation. A revised mechanical plan shall be submitted and approved before a final is approved.

Plumbing Notes

P-1 The efficiency of the domestic water-heating equipment shown on the compliance report shall be shown in UEF. The efficiency rating can be obtained from the manufacturer's data, or an AHRI certificate shall be provided.

Appendix D (Continued)

Electrical Notes

E-1 When a ceiling fan credit is taken, the Energy Star ceiling fans shall be indicated on the electrical drawings. Future fans shall not be indicated when this credit is taken. The fans shall be installed per the plans at the electrical final inspection according to Table R405.7.6. Ceiling fans shall be installed in each of the bedrooms and a minimum of one living area to receive credit.

LONGEST WALL LENGTH (feet)	MINIMUM FAN SIZE (inches)
= 12	36
>12-16	48
>16-17.5	52
>17.5-25	56
>25	Two (2) fans (Minimum of 48 inches each)

TABLE R405.7.6 FAN SIZING TABLE

Section 4



Broward County Board of Rules and Appeals

1 N. University Drive Suite, 3500B, Plantation, FL 33324 broward.org/CodeAppeals | 954-765-4500 | rulesboard@broward.org

TO:	Members of the Broward County Board of Rules and Appeals
FROM:	Administrative Director
DATE:	November 9, 2023
RE:	Annual Leadership Performance Review for Administrative Director and Consideration for Pay Adjustment

Request

I humbly submit this request to the Board of Rules and Appeals for your consideration and authorization, by motion, seeking a pay adjustment of 24% effective October 1, 2023, as part of the annual evaluation process.

<u>Reason</u>

In March 2022, the Board made a strategic decision to cap the hiring rate for the incoming Administrative Director at \$145,578. This decision was made with the understanding that one of the seven Chief Code Compliance Officers would inherently command a higher compensation than the new Director. As I completed the October 1, 2023, evaluation cycle for the staff, it is worth noting that there has been an additional Chief Code Compliance Officer whose salary has surpassed that of the new Director. This discrepancy has created an 8.60% or \$12,651.13 disparity in my current salary compared to the highest-paid Chief Code Compliance Officer.

It is also essential to acknowledge the historical context. The previous Administrative Director's compensation evolved during their tenure, consistently averaging 30.67% higher than that of a Code Compliance Officer. This range has fluctuated over time, reaching a high of 40.57% and a low of 24.23%. By taking the lowest percentage from this historical perspective, a pay increase of 24% or \$34,938.72 would be warranted.

Considering these factors, I kindly request that the Board approve this pay adjustment to ensure equitable compensation in alignment with our organizational goals and past practices.

Respectfully Submitted,

Dr. Ana C. Barbosa

Board of County Commissioners, Broward County, Florida Finance and Administrative Services Department **DIVISION OF HUMAN RESOURCES** BROWARD COUNTY

LEADERSHIP PERFORMANCE REVIEW

Employee Name	Ana Barbosa Job Title			Administrative Director				
Dept/Div/Office	Board of Rules and Ap	peals						
Rating Period From	Aug. 22, 2022	Rating Period To	Oct. 1, 2023	3	Anniversary	Month	8 Day	22
Review Type	Annual Review]			

I. Professional Skills and Competency Appraisal

1 How well does the employee's performance support the agency's mission and represent the County in a positive and effective manner demonstrating SUNsational public service with colleagues, members of the public, and customers/clients?

Please choose one:

Consistently contributes more than expected

Comments:

Ana has an effective way of performance management that indicates how she represents the organization and implements the BORA mission. She uses formal and informal information delivery to achieve a natural connection and provide quality service to colleagues, customers, and members of the public.

2. How well does the employee demonstrate an understanding of the agency's business operations in support of innovation?

Please choose one: Consistently contributes more than expected

Comments:

Ana consistently seeks innovative methods to create a better workflow. She evaluates tasks for timeliness, response, and compliance, then looks for the most efficient and effective ways of accomplishing these tasks. She is currently moving the office to a paperless system to include forms, certification files, and all data. A paperless system will streamline searches and recertification and allow all staff to have the information at their fingertips.

3. How effectively does the employee communicate (verbally and in writing), keep supervisors, coworkers and other stakeholders informed about agency issues, liabilities, and programs?

Please choose one:

Consistently contributes more than expected

Comments:

Ana is an effective communicator. Her staff is engaged due to communicating and demonstrating the importance of working as a team. The staff has reported a higher level of productivity. Additionally, Ana reinforces that they are vital contributors and values them for their unique skills and experience. Ana works closely with the chairman, receiving and providing input on the issues, processes, or policies dealing with the organization. Ana is responsive to the Board and other stakeholders by keeping them informed. She met with each board member and Building Official at the beginning of her tenure. She wanted to ensure she got to know each one, understand their expectations, and discuss how she would like to work with each municipality moving forward to achieve a common goal.

4. How well does the employee listen and give consideration and feedback to the ideas of others?

Please choose one: Consistently contributes more than expected

Comments:

Ana receives constructive feedback well, stating that achieving growth at every career level is essential. She solicits ideas and advice, always striving to do things better. Ana does not mind admitting mistakes and taking responsibility. With her staff, Ana makes feedback opportunities a regular part of the team's workflow and is done with good intentions and frequently.

5. How well does the employee resolve disputes constructively and take prompt and effective actions to address issues and reduce liabilities?

Please choose one: Consistently contributes more than expected

Comments:

Ana has been able to put her medication certification to good use. She seeks to resolve issues in the office quickly. Whether they are personality conflicts or work-related disagreements, Ana is not afraid to address issues and work toward a resolution. She identifies the problems on both sides and helps come to a resolution that will please all sides. If it's clear that the solution did not work or was not the correct resolution for the situation, be proactive in working with both parties to readjust expectations, identify alternative solutions, and continue their dialogue to create a positive and healthy work environment.

6 How well does the employee work as part of a team, helping build consensus, sharing information and contributing to the overall success of the agency?

Please choose one: Consistently contributes more than expected

Comments:

Ana has created an effective team that works well together. She creates consensus with her team by including the members in the decision-making process. Ana, listening to all perspectives in a team setting means finding a proposal acceptable enough for all team members to support it.

7. How well does the employee keep up with professional education and enhance job-related personal skills?

Please choose one: Contributes as expected

Comments:

Ana has come a long way into learning Building and Fire Codes. She works with the Code Officers to for the applicability and interpretation of the codes. She attended BOAF and attends some DPBR meetings online. Ana regularly attends association meetings such as COEF and FAPGMI.

8. How well does the employee respond to critical incidents, emergencies, unexpected situations, anomalies?

Please choose one: Contributes as expected

Comments:

I trust that with Ana's background, she is well prepared and will keep a cool head during any critical incident and emergency. However, during a couple of Board meetings, various staff members experienced unexpected situations where they had technical difficulties that were disruptive during meetings. Ana reported that everyone tests their devices as well as their backup devices. They must ensure that the computer programs are up to date and there is a backup person for anyone involved in the Board meeting.

Items 9-12 are to be completed for those who supervise other employees

9. As a supervisor or manager, how effective is the employee as a positive role model?

Please choose one:

Consistently contributes more than expected

Comments:

Ana displays values, attitudes, and behaviors she wants to emulate. Her ability is to connect with people in all levels in a respectful manner. She models the behavior she expects.

10. How effective is the employee as a coach, provider of praise and corrective action and in supporting SUNsational public service?

Please choose one:

Consistently contributes more than expected

Comments:

Ana has effectively provided feedback, corrective action, and support to employees during coaching. She ensures that she is being specific and timely in feedback, setting clear and measurable goals, providing support and resources, and encouraging and recognizing progress.

11. How effective is the employee in demonstrating support for County's equal employment opportunity, workplace and supplier diversity policies?

Comments:	Consistently contributes more than expected
Ana has welcomed the without harassment a	he diversity of her staff. She is firmly committed to ensuring all employees can work in an environment and discrimination.
. How effective is the e	employee in completing performance appraisals in a job-related and timely manner?

Please choose one: Consistently contributes more than expected

Comments:

Ana believes in effective and timely feedback. She set performance goals when she initially took over BORA. All performance appraisals were completed timely with effective feedback.

II. PROFESSIONAL DEVELOPMENT OBJECTIVES

A. Describe the employee's attainment of the agreed upon measurable professional development objectives for the PREVIOUS RATING PERIOD. For additional objectives, please use the plus button (+).

*	/a	
*		
*		
*		_
*		_
+		

B. List at least three agreed upon professional development objectives with measurable outcomes to be implemented by the employee IN THE NEXT RATING PERIOD. For additional objectives, please use the plus button (+).

	Develop ar	n understanding	of where	the future is	s heading	and trends for	each discipline
--	------------	-----------------	----------	---------------	-----------	----------------	-----------------

- Attend an industry-specific conference
- Become more visible/accessible to City Manager/Mayors. Understand their strategic initiative in development, financial future and challenges.

*		 	
*		 ····	
+	<u> </u>		

III. PERFORMANCE OBJECTIVES

- A. Describe the employee's attainment of the agreed upon measurable performance objectives for the PREVIOUS RATING PERIOD. For additional objectives, please use the plus button (+).
 - * n/a *

*	
*	
+	·

- B. List at least three agreed upon performance objectives with measurable outcomes to be implemented by the employee IN THE NEXT RATING PERIOD. For additional objectives, please use the plus button (+).
 - * Develop a reporting method to receive and communicate legislative initiatives and updates to the Board, Attorney and interested parties.
 - Increase Board Member engagement. Review with each board member their availability, or desire to participate in a capacity that would maintain their involvement.
 - * Review all Administrative policies to ensure the are relevant. Update or delete policies as needed.

IV. CONCLUSIONS AND RECOMMENDATIONS

Based upon the employee's overall performance during the rating period CHOOSE ONE of the following:

Please choose one:

Exceeds overall expectations

Evaluator's Comments

Evaluator Comments:

+

Ana is a highly skilled and efficient manager who relates well to the Public and her staff. She is passionate about her work and strives to learn more about the complicated construction industry and the Building Code. She listens well, communicates effectively, considers the feelings and needs of individuals, and acts on issues timely and efficiently. As Board Chair, she continues to exceed my expectations, which were high when we selected her as our Administrative Director.

Daniel L. Lavrich, P.E., Board Chair

Evaluator's Name (Please print or type.)

Evaluator's Signature

Oct. 19, 2023

Date

Reviewer's Signature

Employee's Comments

Employee Comments:

Signature certifies the employee had the opportunity to review and discuss the appraisal with the evaluator and does not necessarily mean the employee agrees with the appraisal. Further, this appraisal does not constitute an actual or implied employment contract, nor does it establish any expectation of continued employment.

Rating Period A From

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