Broward County Board of Rules and Appeals Meeting Agenda

September 10, 2026 | Time: 7:00 PM

Zoom Meeting Information:
https://broward-org.zoomgov.com/j/1655283036
Meeting ID: 165 528 3036

I. CALL MEETING TO ORDER

II. ROLL CALL

III. APPROVAL OF AGENDA

IV. APPROVAL OF MINUTES – July 9, 2026, 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

DANIA BEACH
De Souza, Jr., Jarbas – Assistant Building Official

DEERFIELD BEACH
Guanche, Steve – Chief Electrical Inspector

FORT LAUDERDALE
Linarte, Mauricio A. – Electrical Plans Examiner (Provisional)
Thompson, Timothy – Chief Plumbing Inspector

LAUDERHILL
Garcia, Jaime – Chief Electrical Inspector

MIRAMAR
Pla, Yaiquimi A. – Chief Plumbing Inspector
Toledo, Oniel E. – Chief Structural Inspector

PEMBROKE PINES
Kuebler, Michael – Fire Plans Examiner
Megna, Vincent – Fire Plans Examiner
Vincent, Andrew – Fire Plans Examiner

PLANTATION
Pyco, Jose – Chief Structural Inspector

POMPANO BEACH
Hendry, Edward E. – Structural Inspector (120-Temporary)

WILTON MANORS
Rodriguez, Rolando – Assistant Building Official

COUNTYWIDE
Bell, Joshua Louis – Structural Plans Examiner
Green, Donald B. – Electrical Inspector
Kalil, Jefferson – Structural Plans Examiner
Lamberto, Angel – Plumbing Plans Examiner
Nicholson, Clifford – Mechanical Inspector
Palma, Emmanuel D. – Mechanical Plans Examiner
Ruiz, Jose Manueal – Structural Inspector
Toledo, Oniel E. – Structural Inspector/Plans Examiner

VII. REGULAR AGENDA

1. **Recommendation to Rescind Formal Interpretation #6, Retrofits Required Pursuant to Florida Building Code, Existing Building, Section 706.8**

   a. Staff Report – J. Jack Morell
   b. Board Questions
   c. Board Action

2. **Recommendation to Rescind Board Policy #22-03, Mandatory Countywide Rooftop Mounted Equipment Affidavit**

   a. Staff Report – J. Jack Morell
   b. Board Questions
   c. Board Action

3. **First Reading of Proposed Revisions to the High-Velocity Hurricane Zone – Uniform Roofing Permit Application**

   a. Staff Report – J. Jack Morell
   b. Board Questions
   c. Board Action

4. **First Reading of the Proposed Revisions of the Broward County Amendments to the 2023 Florida Building Code, Mechanical, Eighth Edition (FMC), Section 908.8, Cooling Towers**

   a. Staff Report – Rolando Soto
   b. Board Questions
   c. Board Action

5. **First Reading of the Broward County Board of Rules and Appeals Technical Amendments to the 2026 Florida Building Code, Ninth Edition (FBC)**

   a. Staff Report – Rolando Soto
   b. Board Questions
   c. Board Action

6. **Administrative Director Annual Executive Performance Review**

   a. Staff Report – Dr. Ana C. Barbosa
   b. Board Questions
   c. Board Action

7. **Director's Report**

8. **Attorney's Report**

9. **Committee Reports**

10. **General Board Member Discussion**

11. **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).

Board Members: If you are unable to attend the meeting, please contact Dr. Barbosa at 954-931-2393 between 6:00 PM and 7:00 PM.

July 9, 2026
Board Meeting Minutes

Broward County Board of Rules and Appeals
Meeting Minutes

July 9, 2026 | Time: 7:00 PM

Zoom Meeting Information:
https://broward-org.zoomgov.com/s/1651913429
Meeting ID: 165 191 3429

I. CALL MEETING TO ORDER

Chairman Deveaugh called to order a published virtual meeting of the Broward County Board of Rules and Appeals at 7:00 PM.

II. ROLL CALL

Peter Deveaugh, Chairman	Anthony Salgado
Stephen Bailey	Scott Taggart
Gregg D'Attile	Robert Taylor
Jeff Falkanger	Dennis Ulmer
Constantin Huzdup	Derek Wassink
R. Art Kamm	

III. APPROVAL OF AGENDA

Mr. Bailey made a motion to approve the agenda, and Mr. Wassink seconded the motion. The motion passed by unanimous vote.

IV. APPROVAL OF MINUTES – June 11, 2026, Board Meeting

Mr. D'Attile made a motion to approve the June 11, 2026, minutes as submitted, and Mr. Taylor seconded the motion. The motion passed by unanimous vote.

V. PUBLIC COMMENT (Except public hearing items on this agenda)

None

VI. CONSENT AGENDA

1. **Certifications** – Staff Recommended

CITY OF COCONUT CREEK
Almas, Marcelo D., Assistant Building Official

CITY OF DEERFIELD BEACH
Bennett, Jeremie, Building Official
Giunta, John, Chief Plumbing Inspector

CITY OF HOLLYWOOD
Leveille, Jacques Aime, Structural Inspector (Provisional)

CITY OF MIRAMAR
Thomson, Zachary, Fire Inspector

CITY OF PLANTATION
Blanchard, Caridad, Fire Plans Examiner

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CITY OF POMPANO BEACH
Olsen, Jay, Building Official

TOWN OF SOUTHWEST RANCHES
Hernandez, Luis B., Building Official
Hernandez, Luis B., Chief Structural Inspector

CITY OF SUNRISE
Rivera, Khelly, Fire Inspector

COUNTYWIDE
Sinks, Jonathan P., Electrical Plans Examiner
Zagales, Charles, Mechanical Plans Examiner

Mr. D'Attile moved to approve the certifications as recommended by staff, and Mr. Taggart seconded the motion. The motion passed by unanimous vote.

VII. REGULAR AGENDA

1. Appeal #26-01 Gustavo J. Carbonell, Architect, Permit #BLD-GEN-26040017 416 and 418 SW 9th Street vs. City of Fort Lauderdale Building Department

a. Staff Report – Jose M. Cruz-Vellon

Mr. Jose M. Cruz-Vellon, Chief Plumbing Code Compliance Officer, presented the item, referring to the agenda memorandum dated July 9, 2026. This appeal concerns an existing single-building sewer connection for a two-family dwelling that is being converted into two separate units. It was recommended that the Broward County Board of Rules and Appeals deny, by vote, Appeal #26-01, based upon the provisions of Sections P2601.2 and P3001.1 of the 8th Edition Florida Building Code (2023), Residential.

b. Appellant Testimony

The appellant, Mr. Gustavo J. Carbonell, stated that the property is a single building containing two units that historically functioned as two rental residences under one ownership. He explained that when owners began separating units for individual sale, updated requirements were introduced, and this property was affected. He noted that the original permit did not indicate any restriction on splitting the units, and in his review of the referenced plumbing code sections, none clearly prohibit the existing shared sewer configuration.

He further explained that the current setup operates similarly to other townhome-style configurations and that he does not see a functional basis for requiring two separate lateral connections. He referenced Section P3001.1, stating that its provisions govern internal drainage design rather than mandating separate exterior laterals. The appellant concluded by requesting that the Board allow the existing shared connection to remain.

c. City Response

Mr. Noel Zamora, Assistant Building Official for Fort Lauderdale, stated that the existing configuration connects through an adjacent property to reach the public sewer system, creating a private cross-connection between two separate dwellings. He explained that this arrangement violates code because private access between two independently owned properties cannot be guaranteed in the future. If the properties are sold, one dwelling would not have legal or physical access to repair or maintain its sewer connection. He added that the City cannot issue or maintain a public easement across two separate lots for private sewer access, as public easements are not intended for that purpose.

Mr. Tim Thompson, Chief Plumbing Code Compliance Officer for the City of Fort Lauderdale, added that this issue has been under review for several years and was brought to the Board

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for an interpretation as recommended by the previous Chief. He explained that while the original structure functioned as a two-family dwelling on a single lot, the creation of two separate folios and townhouse-style units fundamentally changed the requirements. Allowing one unit's sewer to cross another property without a public easement or common area presents a significant compliance concern. He stated that the City is seeking a ruling from the Board to resolve this ongoing issue.

d. Board Discussion

The Board discussed the configuration of the sewer lines, noting that each unit has its own building drain extending beyond the exterior wall, but that the lateral from Unit A crosses onto Unit B's property and joins Unit B's sewer before exiting as a single line. The Board emphasized that private agreements between owners could fail over time, leaving no enforceable path for maintenance. This lack of easement and the split ownership were identified as significant issues preventing acceptance of the shared sewer connection.

e. Board Action

Mr. D'Attile made a motion to deny the appeal, and Mr. Salgado seconded the motion. The motion passed unanimously.

2. Proposed Board of Rules and Appeals Pay Plan – Fiscal Year 2027

a. Staff Report – Dr. Ana Barbosa

Dr. Ana Barbosa presented the proposed Pay Plan for Fiscal Year 2027. She recommended that the Board approve the plan, effective October 1, 2026, which establishes updated salary ranges for Board positions while maintaining previously adopted compensation provisions.

b. Board Questions

In response to Chairman Deveaugh's question, Dr. Barbosa explained that new employees typically begin at the lower end of the pay range and progress through merit and cost-of-living increases. However, she noted that certain positions, such as the proposed Chief Energy role, would likely require specialized education and experience, making it necessary to hire above the minimum rate to attract qualified candidates.
In response to Mr. Bailey's question regarding the proposed pay ranges, Dr. Barbosa confirmed that no salary increases were being requested or implemented as part of this agenda item. The revised ranges are intended solely to establish a compensation framework that supports future advancement, recruitment, and retention as operational needs evolve. She emphasized that the plan provides structure and flexibility but does not alter current employee pay.

c. Board Action

Mr. D'Attile made a motion to approve the proposed pay plan as recommended, and Mr. Falkanger seconded the motion. The motion passed by a unanimous vote.

3. Director's Report

Dr. Barbosa had nothing to report.

4. Attorney's Report

Mr. Kramer elaborated on Ms. Guo's recent filings and his responses on behalf of BORA.

5. Committee Reports – None

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6. **General Board Member Discussion** – None

7. **Adjournment**

   The meeting was adjourned at 7:56 PM.

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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).

Board Members: If you are unable to attend the meeting, please contact Dr. Barbosa at 954-931-2393 between 6:00 PM and 7:00 PM.

Consent Agenda:
Item 1

DANIA BEACH
De Souza, Jr., Jarbas – Assistant Building Official

DEERFIELD BEACH
Guanche, Steve – Chief Electrical Inspector

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Linarte, Mauricio A. – Electrical Plans Examiner (Provisional)
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Ruiz, Jose Manueal – Structural Inspector
Toledo, Oniel E. – Structural Inspector/Plans Examiner

Regular Agenda:
Item 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: Chief Structural Code Compliance Officer

DATE: September 10, 2026

RE: Recommendation to Rescind Formal Interpretation #6, Retrofits Required Pursuant to Florida Building Code, Existing Building, Section 706.8

Recommendation

The Roofing Committee recommends that the Broward County Board of Rules and Appeals rescind, by vote, Formal Interpretation #6, Retrofits Required Pursuant to Florida Building Code, Existing Building, Section 706.8.

Reasons

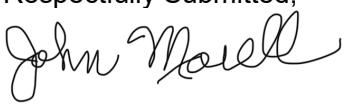
At the July 15, 2026, meeting, the Roofing Committee recommended by unanimous vote to rescind Formal Interpretation #6. The formal interpretation was last revised and approved by the Board at its May 8, 2014, meeting. Since that time, the provisions addressed by the formal interpretation have been incorporated into Sections 706.8.1.3, 706.8.1.4, 706.8.1.5, and 706.8.1.6 of the Florida Building Code, Existing Building, 8th Edition (2023).

These code provisions establish more stringent requirements and supersede the guidance provided in Formal Interpretation #6. Therefore, the formal interpretation is no longer necessary and should be rescinded to avoid any inconsistency or confusion regarding the applicable code requirements.

Additional Information

- Formal Interpretation #6, Retrofits Required Pursuant to Florida Building Code, Existing Building, Section 706.8
- July 15, 2026, Roofing Committee Minutes

Respectfully Submitted,



J. Jack Morell

1 N. University Drive, Suite 3500B
Plantation, Florida 33324

Phone: 954-765-4500
Email: rulesboard@broward.org
www.broward.org/CodeAppeals

2024 Voting Members

Chair Gregg D'Attile,
Mechanical Contractor

Vice-Chair Ron Burr,
Swimming Pool Contractor

Mr. Stephen Bailey, P.E.,
Electrical Engineer

Mr. John Famularo,
Roofing Contractor

Mrs. Shalanda Giles Nelson,
General Contractor

Mr. Robert A. Kamm, P.E.,
Mechanical Engineer

Mr. Daniel Lavrich, P.E., S.I.,
F.ASCE, F.SEI, Structural Engineer

Mr. Sergio Pellecer,
Fire Service Professional

Mr. Daniel Rourke,
Master Plumber

Mr. John Sims,
Master Electrician

Mr. Dennis A. Ulmer,
Consumer Advocate

Ms. Lynn E. Wolfson,
Disabled Community Representative

Mr. Abbas H. Zackria, CSI,
Architect

2024 Alternate Board Members

Mr. Steven Feller, P.E.,
Mechanical Engineer

Mr. Jeff Falkanger,
Architect

Mr. Alberto Fernandez,
General Contractor

Mr. David Rice, P.E.,
Electrical Engineer

Mr. Robert Taylor,
Fire Service Professional

Mr. James Terry,
Master Plumber

Mr. David Tringo,
Master Electrician

Mr. Derek A. Wassink, P.E,R.A.,S.I.,
S.T.S.2., Structural Engineer

VACANT,
Roofing Contractor

Board Attorney
Charles M. Kramer, Esq.

Board Administrative Director
Dr. Ana Barbosa

— Established 1971 —

BROWARD COUNTY
BOARD OF RULES AND APPEALS

FBC 8TH EDITION (2023)
FORMAL INTERPRETATION (#6)

DATE: October 12, 2023
TO: All Building Officials
FROM: Dr. Ana Barbosa, Administrative Director
SUBJECT: Retrofits required pursuant to Florida Building Code Existing Building Section 706.8

At its regularly scheduled meeting on October 12, 2023, the Broward County Board of Rules and Appeals approved that anchors no less than 1/8" by 1" steel strap nailed with 3- 16D nails installed in accordance with previous additions of the South Florida Building Code shall be deemed to comply with the minimum uplift capacity of 500 pounds as specified in the Florida Building Code Existing Building Manual Section 706.8 for roof to wall connections for site-built single-family residential structures.

EFFECTIVE DATE: May 9, 2014
EFFECTIVE DATE: December 31, 2023

***** PLEASE POST AT YOUR PERMIT COUNTER *****

BROWARD COUNTY BOARD OF RULES & APPEALS
ROOFING COMMITTEE MEETING MINUTES
JULY 15, 2026

1. **CALL MEETING TO ORDER:**

   The Board of Rules and Appeals Roofing Committee held an advertised meeting on Wednesday, July 15, 2026, in the 1st Floor Board Room of Broward County Governmental Center West, 1 North University Drive, Plantation, Florida. The meeting was called to order by Chairman Badiu at 1:00 PM.

2. **ROLL CALL:**

   Eduard Badiu, Chair
   Jason Douglas
   Jeffrey Falkanger
   Steve Festa
   Tim Graboski
   Constantin Huzdup
   Mary Beth Reed

3. **APPROVAL OF MINUTES** – May 12, 2023

   A motion to approve the May 12, 2023, minutes was made by Mr. Grabowski and seconded by Ms. Reed. The motion passed unanimously.

4. **TOPICS FOR DISCUSSION:**

   The Committee discussed each issue and made the following motions as needed.

   a. The committee completed a comprehensive review of the Revised Uniform Roof Permit Application and approved all recommended updates. Section A will no longer list RAS 117, 137, or 150, as these classifications are now consolidated within Section C. Section C was expanded to include RAS and insulation checkboxes, retained Zone 1 Prime, and added clarification regarding enhanced fastening and drainage requirements for parapet roofs. Section D updates include replacing all NOA references with Product Control Numbers, improving field clarity, and adding a ridge ventilation entry with its associated Product Control Number. Section E was revised to require positive uplift values, remove the former Method 2 (renumbering Method 3 accordingly), correct the “MG” notation to “MR,” and standardize product-approval terminology. All changes were formally motioned and unanimously approved.

      i. Mr. Douglas made a motion, and Mr. Falkanger seconded the motion, that Section A & B of the form be accepted as presented and discussed. The motion was carried by unanimous vote.

      ii. Mr. Badiu made a motion, and Mr. Grabowski seconded the motion, that Section C of the form be accepted as presented and discussed. The motion was carried by unanimous vote.

iii. Mr. Graboski made a motion, and Mr. Falkanger seconded the motion, that Section D of the form be accepted as presented and discussed. The motion was carried by unanimous vote.

a. The motion thereafter was amended to include additional language. The Amended Motion was carried by unanimous vote.

iv. Ms. Reed made a motion, and Mr. Douglas seconded the motion, that Section E of the form be accepted as presented and discussed. The motion was carried by unanimous vote.

b. The committee noted that the updated Florida Building Code continues to require the 740-pound roof-to-wall connection standard. No revisions to local forms were deemed necessary, and while members discussed related scenarios, no formal motion or action was taken.

c. The committee discussed rescinding Formal Interpretation #6, noting that the current building code now provides clearer and more stringent guidance. Although members later discussed whether certain atypical roof conditions might warrant reconsideration, no additional motion was introduced.

A motion to rescind Formal Interpretation #6 was made by Mr. Grabowski and seconded by Mr. Douglas. The motion passed unanimously.

d. The committee discussed updates to the Roof Top Mounted Equipment Affidavit, adding electrical conduit removal and replacement to the list of activities requiring permits and removing the term “curb” so that only “stand” remains.

Ms. Reed made a motion, and Mr. Grabowski seconded the motion that the form be accepted as presented and discussed. The motion was carried by unanimous vote.

5. **SET NEXT MEETING DATE:** No meeting date was set

6. **ADJOURNMENT:** The meeting adjourned at 2:20 PM.

Item 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: Chief Structural Code Compliance Officer

DATE: September 10, 2026

RE: Recommendation to Rescind Board Policy #22-03, Mandatory Countywide Rooftop Mounted Equipment Affidavit

Recommendation

The Roofing Committee recommends that the Broward County Board of Rules and Appeals approve, by vote, to rescind Board Policy #22-03, Mandatory Countywide Rooftop Mounted Equipment Affidavit.

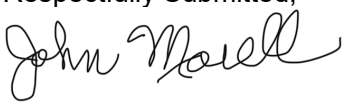
Reasons

At its September 1, 2026, meeting, the Roofing Committee recommended rescinding the Mandatory Countywide Rooftop Mounted Equipment Affidavit. The information required by the Mandatory Countywide Rooftop Mounted Equipment Affidavit is now included in the High-Velocity Hurricane Zone – Uniform Roofing Permit Application. Therefore, continuing to require the separate affidavit is unnecessary and duplicative.

Additional Information

- Board Policy #22-03, Mandatory Countywide Rooftop Mounted Equipment Affidavit
- September 1, 2026, Roofing Committee Minutes

Respectfully Submitted,



J. Jack Morell

MANDATORY COUNTYWIDE ROOFTOP MOUNTED EQUIPMENT AFFIDAVIT

ALL EQUIPMENT THAT IS ROOFTOP MOUNTED IS REQUIRED TO BE IDENTIFIED BY THIS AFFIDAVIT AND SUBMITTED WITH THE HIGH-VELOCITY HURRICANE ZONE UNIFORM ROOFING PERMIT APPLICATION

Permit Number: _____

Site Address: _____

Company Name: _____

Address: _____

Name of Qualifier: _____

License Number: _____ Contact No: _____

PLEASE CHECK ALL APPLICABLE EXISTING ROOFTOP EQUIPMENT:

☐ A/C EQUIPMENT ☐ PHOTOVOLTAIC PANELS ☐ SOLAR THERMAL ☐ GAS VENTS

☐ WATERLINES ☐ ELECTRICAL CONDUITS ☐ NO EQUIPMENT ON THE ROOF

PERMITS ARE REQUIRED FOR:

- REMOVAL AND REINSTALLATION OF PHOTOVOLTAIC PANELS.
- REMOVAL AND REINSTALLATION OF SOLAR THERMAL.
- REMOVAL AND REINSTALLATION OF GAS VENTS.

IF A/C EQUIPMENT IS CHECKED ABOVE:

- IS THERE AN EXISTING CODE-APPROVED CURB OR STAND? ☐ YES ☐ NO

IF YOU ANSWERED NO, A MECHANICAL PERMIT IS REQUIRED FOR THE INSTALLATION OF THE PROPOSED CURB OR STAND.

ANY ROOFTOP EQUIPMENT REMOVED DURING REROOFING SHALL BE REINSTALLED IN COMPLIANCE WITH THE CODE IN EFFECT AT THE TIME A REROOFING PERMIT IS ISSUED.

NOTE: All above permits may be considered as deferred submittals.

_____ _____

CONTRACTOR/OWNER BUILDER SIGNATURE DATE

_____

PRINT CONTRACTOR/OWNER BUILDER NAME

BROWARD COUNTY BOARD OF RULES & APPEALS
ROOFING COMMITTEE MEETING MINUTES
SEPTEMBER 1, 2026
https://broward-org.zoomgov.com/j/1658275200
Meeting ID: 165 827 5200

1. **CALL MEETING TO ORDER:**

   The Board of Rules and Appeals Roofing Committee met on Tuesday, September 1, 2026, via ZoomGov. The meeting was called to order by Chairman Badiu at 12:00 PM.

2. **ROLL CALL:**

Eduard Badiu, Chair	Tim Graboski
Peter Deveaugh, Vice Chair	Constantin Huzdup
Victor Blanco	Adam LeBlanc
Jason Douglas	Peter Panagakos
Jeffrey Falkanger	

3. **APPROVAL OF MINUTES** – July 15, 2026

   A motion to approve the July 15, 2026, minutes was made by Mr. Grabowski and seconded by Mr. Douglas. The motion passed unanimously.

4. **TOPICS FOR DISCUSSION:**

   a. Request to Rescind Board Policy #22-03 Mandatory Countywide Rooftop Mounted Equipment Affidavit

      A motion to rescind Board Policy #22-03 was made by Mr. Grabowski and seconded by Mr. Falkanger. The motion passed unanimously.

   b. Revised Uniform Roof Permit Application

      The Committee reviewed the revised permit application. Aside from one minor edit identified during discussion, the application was accepted as presented. A motion to accept the Revised Uniform Roof Permit Application was made by Mr. Grabowski and seconded by Mr. Falkanger. The motion passed unanimously.

5. **SET NEXT MEETING DATE:** September 14, 2026, at 12:00 PM.

6. **ADJOURNMENT:** The meeting adjourned at 12:23 PM.

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Item 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 Structural Code Compliance Officer

DATE: September 10, 2026

RE: First Reading of Proposed Revisions to the High-Velocity Hurricane Zone – Uniform Roofing Permit Application

Recommendation

The Roofing Committee recommends that the Broward County Board of Rules and Appeals approve, by vote, the proposed revisions to the High-Velocity Hurricane Zone – Uniform Roofing Permit Application.

Reasons

The Roofing Committee has proposed revisions to the High-Velocity Hurricane Zone – Uniform Roofing Permit Application for consistency with the Florida Building Code, 8th Edition (2023). The proposed revisions include adding provisions for single-ply roofing products and removing Method 2 from the application.

Additional Information

- Proposed High-Velocity Hurricane Zone – Uniform Roofing Permit Application, with deleted language shown in strikethrough and proposed new language underlined
- Proposed High-Velocity Hurricane Zone – Uniform Roofing Permit Application, clean version
- September 1, 2026, Roofing Committee Minutes

Respectfully Submitted,

John Morell

J. Jack Morell

Proposed High-Velocity Hurricane Zone – Uniform Roofing Permit Application

- Deleted Language Shown in ~~Strikethrough~~
- Proposed New Language <u>Underlined</u>

~~Florida Building Code 8th Edition (2023)~~

High-Velocity Hurricane Zone - Uniform Permit Application Form

INSTRUCTION PAGE

COMPLETE THE NECESSARY SECTIONS OF THE UNIFORM ROOFING PERMIT APPLICATION FORM AND ATTACH THE REQUIRED DOCUMENTS AS NOTED BELOW:

Roof System	Required Sections of the Permit Application Form	Attachments Required See List Below
Low Slope Application	A,B,C	1,2,3,4,5,6,7
Prescriptive BUR-RAS 150	A,B,C	4,5,6,7
Asphalt, Wood, Shingles, and Shakes	A,B,D	1,2,4,5,6,7
Concrete or Clay Tile	A,B,D,E	1,2,3,4,5,6,7
Metal Roofs	A,B,D	1,2,3,4,5,6,7
~~Wood Shingles and Shakes~~	~~A,B,D~~	~~1,2,4,5,6,7~~
Other	As Applicable	1,2,3,4,5,6,7

ATTACHMENTS REQUIRED

1.	Fire Directory Listening Page
2.	From Product Approval: Front Page Specific System Description Specific System Limitations General Limitations Applicable Detail Drawings
3.	Design Calculations per Chapter 16, or if applicable, RAS 127 or RAS 128
4.	Other Component of Product ~~Approval~~ Control
5.	Municipal Permit Application
6.	Owners Notification for Roofing Considerations (Reroofing Only)
7.	Any Required Roof Testing/Calculation Documentation

~~*Florida Building Code* 8th Edition (2023)~~

High-Velocity Hurricane Zone - Uniform Permit Application Form

Section A (General Information)

Master Permit No. _____ Process No. _____

Contractor's Name _____

Job Address _____

ROOF CATEGORY

☐ Low Slope ☐ Mechanically Fastened Tile ☐ Mortar/Adhesive Set Tiles
☐ Asphalt Shingles ☐ Metal Panel/Shingles ☐ Wood Shingles/Shakes
☐ ~~Prescriptive BUR RAS 150~~

ROOF TYPE

☐ New Roof ☐ Repair ☐ Maintenance ☐ Reroofing ☐ Recovering

ROOF SYSTEM INFORMATION

Low Slope Roof Area (SF) _____ Steep Sloped Roof Area (SF) _____ Total (SF) _____

PLEASE CHECK ALL APPLICABLE EXISTING ROOFTOP EQUIPMENT

☐ Equipment ☐ AC Roof Stands ☐ Solar Thermal ☐ Vents: Type: _____

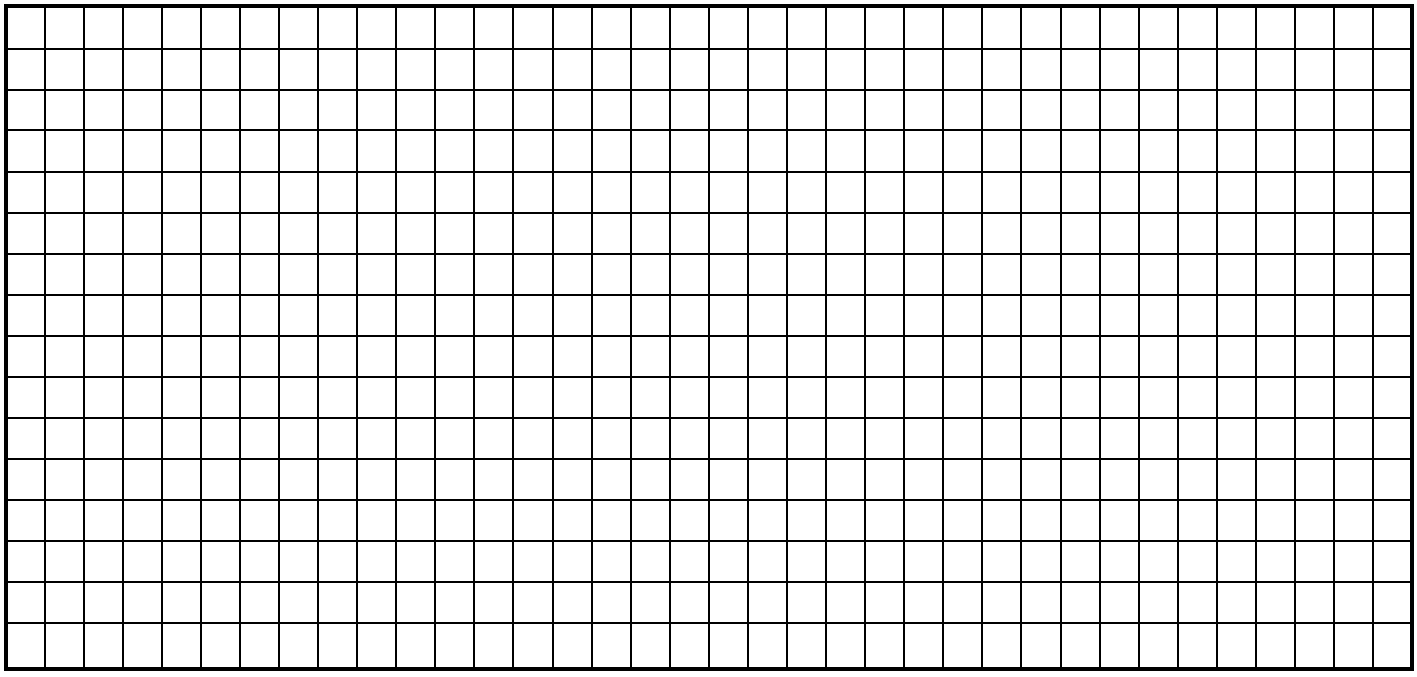
☐ Water lines ☐ Electrical conduits ☐ Photovoltaic Panels ☐ No Equipment on Roof

Does the existing roof have insulation? ☐ **Yes** **Type** _____ **R Value** _____ ☐ **No**

PERMITS ARE REQUIRED FOR THE REMOVAL AND REINSTALLATION OF ROOF TOP EQUIPMENT

SECTION B (Roof Plan)

Sketch Roof Plan: Illustrate all levels and sections, roof drains, scuppers, overflow scuppers and overflow drains. Include dimensions of sections and levels, clearly identify dimensions of elevated pressure zones and locations of parapets.



High-Velocity Hurricane Zone - Uniform Permit Application Form

☐ **RAS 117 (Multi-Ply) (Calculations Req)** ☐ **RAS 150 (Residential Projects Only) FBC Prescriptive** ☐ **RAS 137 (Single-Ply) (Calculations Req)**

Section C (Low Slope Application)

Fill in specific roof assembly components and identify manufacturer

(If a component is not used, identify as "N/A")

System Manufacturer: _____

Product Approval No.: _____

Design Wind Pressures, From RAS 128 or Calculations:

Zone 1': ____ Zone 1: ____ Zone 2: ____ Zone 3: ____

Max: Design Pressure, from the specific product Control ~~approval~~ system: _____

☐ Insulated ☐ Non Insulated

Deck:
Type: _____
Gauge/Thickness: _____
Slope: _____

Anchor/Base Sheet & No. of Ply(s): _____

Anchor/Base Sheet Fastener/Bonding Material:

Insulation Base Layer: _____

Base Insulation Size and Thickness: _____

Base Insulation Fastener/Bonding Material:

Top Insulation Layer: _____

Top Insulation Size and Thickness: _____

Top Insulation Fastener/Bonding Material:

Base Sheet(s) & No. of Ply(s): _____

Base Sheet Fastener/Bonding Material:

Ply Sheet(s) & No. of Ply(s): _____

Ply Sheet Fastener/Bonding Material:

Top Ply: _____

Top Ply Fastener/Bonding Material:

Surfacing: _____

Fastener Spacing for Anchor/Base Sheet Attachment:

Zone 1': _____" oc @ Lap, # Rows _____ @ _____" oc

Zone 1: _____" oc @ Lap, # Rows _____ @ _____" oc

Zone 2: _____" oc @ Lap, # Rows _____ @ _____" oc

Zone 3: _____" oc @ Lap, # Rows _____ @ _____" oc

Number of Fasteners Per Insulation Board for Insulation Systems:

Zone 1': ___ Zone 1: ___ Zone 2: ___ Zone 3: ___

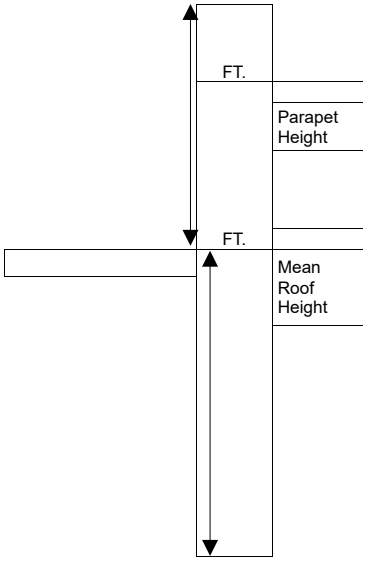
RAS 137 (Single-Ply) Only:

Width of Roll _____" Spacing of Fasteners _____"

Zone 1' _____" Spacing _____"
Zone 1 _____" Spacing _____"
Zone 2 _____" Spacing _____"
Zone 3 _____" Spacing _____"

Illustrate Components Noted and Details as Applicable:
Wood blocking, Gutter, Edge Termination, Stripping, Flashing, Continuous Cleat, Cant Strip, Base Flashing, Counterflashing, Coping, Etc.

Indicate: Mean Roof Height, Parapet Height, Height of Base Flashing, Component Material, Material Thickness, Fastener Type, Fastener Spacing, or Submit Manufacturers' Details that Comply with RAS 111 and Chapter 16.



Continuous Parapet ☐ Yes ☐ NO

If yes, Roof Drainage Calculation (prepared by a PE) for Primary Drainage and Secondary (Overflow) Drainage as per Chapter 11 of the FBC Plumbing Code is required for each roof elevation.

High-Velocity Hurricane Zone - Uniform Permit Application Form

Section D (Steep Sloped Roof System)

Roof System Manufacturer: _____

~~Notice of Acceptance~~ Product Control Number: _____

Minimum Design Wind Pressures, If Applicable (From RAS 127 or Calculations): _____

Zone 1 _____ Zone 2 _____ Zone 3 _____

Slope Range ☐ >2:12 To 4:12 ☐ >4:12 to 6:12 ☐ >6:12 to 12:12

Roof Shape ☐ All Hip ☐ All Gable ☐ Partial Hip - Partial Gable

Roof Slope:

_____:12

Ridge Ventilation:

☐ Yes ☐ No

Product Control

#_____

Mean Roof Height:

_____

Deck Type:

Type Underlayment:

Insulation:

Fire Barrier:

Fastener Type & Spacing:

~~Adhesive Type~~ Type Cap Sheet:

~~Type Cap Sheet~~ Adhesive Type:

Roof Covering:

Type & Size Drip Edge:

High-Velocity Hurricane Zone - Uniform Permit Application Form

Section E (Tile Calculations)
For Moment-based tile systems, choose ~~either~~ Method 1 ~~or 2~~. Compare the values for M_r with the values from M_f. If the M_f values are greater than or equal to the M_f values, for each area of the roof then the tile attachment method is acceptable.

Enter Positive values in the fields using Method 1 for the calculation of the attachments

Method 1 "Moment-Based Tile Calculations Per RAS 127"

(Zone 1: _____ x λ _____ = _____) – Mg: = _____ = M_{r1} _____ Product ~~Approval~~ Control M_f _____

(Zone 2: _____ x λ _____ = _____) – Mg:= _____ = M_{r2} _____ Product ~~Approval~~ Control M_f _____

(Zone 3: _____ x λ _____ = _____) – Mg:= _____ = M_{r3} _____ Product ~~Approval~~ Control M_f _____

~~Method 2 "Simplified Tile Calculations Per Table Below"~~

~~Required Moment of Resistance (M_r) From Table Below~~ _____ ~~Product Approval M_f~~ _____

~~M_r Required Moment Resistance*~~					
~~Mean Roof Height Roof Slope~~	~~15'~~	~~20'~~	~~25'~~	~~30'~~	~~40'~~
~~2:12~~	~~-46~~	~~-47.6~~	~~-49.4~~	~~-50.9~~	~~-53.3~~
~~3:12~~	~~-47.3~~	~~-48.9~~	~~-50.7~~	~~-52.2~~	~~-54.6~~
~~4:12~~	~~-47.2~~	~~-52.0~~	~~-53.8~~	~~-55.3~~	~~-57.9~~
~~5:12~~	~~-39.8~~	~~-41.5~~	~~-42.8~~	~~-43.7~~	~~-45.7~~
~~6:12~~	~~-39.6~~	~~-40.6~~	~~-41.9~~	~~-42.9~~	~~-44.8~~
~~7:12~~	~~-39.4~~	~~-40.3~~	~~-41.6~~	~~-42.6~~	~~-44.6~~

~~Method 2 may be utilized within Broward County Exposure C only.~~

For Uplift-based tile systems, use Method ~~3~~2. Compare the values for F' with the values for F_r. If the F' values are greater than or equal to the F_r values for each area of the roof, then the title attachment method is acceptable.

Method ~~3~~2 "Uplift-Based Tile Calculations Per RAS 127"

(Zone 1: _____ x L _____ = _____ x w: = _____) – W: x cos r _____ = F_{r1} _____ Product Approval F' _____

(Zone 2: _____ x L _____ = _____ x w: = _____) – W: x cos r _____ = F_{r2} _____ Product Approval F' _____

(Zone 3: _____ x L _____ = _____ x w: = _____) – W: x cos r _____ = F_{r3} _____ Product Approval F' _____

Where to Obtain Information

Description	Symbol	Where to Find
Design Pressure	Zone 1, 2, 3	From applicable table in RAS 127 or by an engineering analysis prepared by PE based in ASCE 7
Mean Roof Height	H	Job Site
Roof Slope	θ	Job Site
Aerodynamic Multiplier	λ	Product ~~Approval~~ Control
Restoring Moment due to Gravity	M_g	Product ~~Approval~~ Control
Attachment Resistance	M_f	Product ~~Approval~~ Control
Required Moment Resistance	$M_{g r}$	Calculated
Minimum Attachment Resistance	F^1	Product ~~Approval~~ Control
Required Uplift Resistance	F_r	Calculated
Average Tile Weight	W	Product ~~Approval~~ Control
Tile Dimensions	L = length W = width	Product ~~Approval~~ Control
All calculations must be submitted to the building official at the time of permit application.		

Proposed High-Velocity Hurricane Zone – Uniform Roofing Permit Application

- Clean Version

High-Velocity Hurricane Zone - Uniform Permit Application Form

INSTRUCTION PAGE

COMPLETE THE NECESSARY SECTIONS OF THE UNIFORM ROOFING PERMIT APPLICATION FORM AND ATTACH THE REQUIRED DOCUMENTS AS NOTED BELOW:

Roof System	Required Sections of the Permit Application Form	Attachments Required See List Below
Low Slope Application	A,B,C	1,2,3,4,5,6,7
Prescriptive BUR-RAS 150	A,B,C	4,5,6,7
Asphalt, Wood, Shingles, and Shakes	A,B,D	1,2,4,5,6,7
Concrete or Clay Tile	A,B,D,E	1,2,3,4,5,6,7
Metal Roofs	A,B,D	1,2,3,4,5,6,7
Other	As Applicable	1,2,3,4,5,6,7

ATTACHMENTS REQUIRED

1.	Fire Directory Listening Page
2.	From Product Approval: Front Page Specific System Description Specific System Limitations General Limitations Applicable Detail Drawings
3.	Design Calculations per Chapter 16, or if applicable, RAS 127 or RAS 128
4.	Other Component of Product Control
5.	Municipal Permit Application
6.	Owners Notification for Roofing Considerations (Reroofing Only)
7.	Any Required Roof Testing/Calculation Documentation

High-Velocity Hurricane Zone - Uniform Permit Application Form

Section A (General Information)

Master Permit No. _____ Process No. _____

Contractor's Name _____

Job Address _____

ROOF CATEGORY

☐ Low Slope ☐ Mechanically Fastened Tile ☐ Mortar/Adhesive Set Tiles
☐ Asphalt Shingles ☐ Metal Panel/Shingles ☐ Wood Shingles/Shakes

ROOF TYPE

☐ New Roof ☐ Repair ☐ Maintenance ☐ Reroofing ☐ Recovering

ROOF SYSTEM INFORMATION

Low Slope Roof Area (SF) _____ Steep Sloped Roof Area (SF) _____ Total (SF) _____

PLEASE CHECK ALL APPLICABLE EXISTING ROOFTOP EQUIPMENT

☐ Equipment ☐ AC Roof Stands ☐ Solar Thermal ☐ Vents: Type: _____

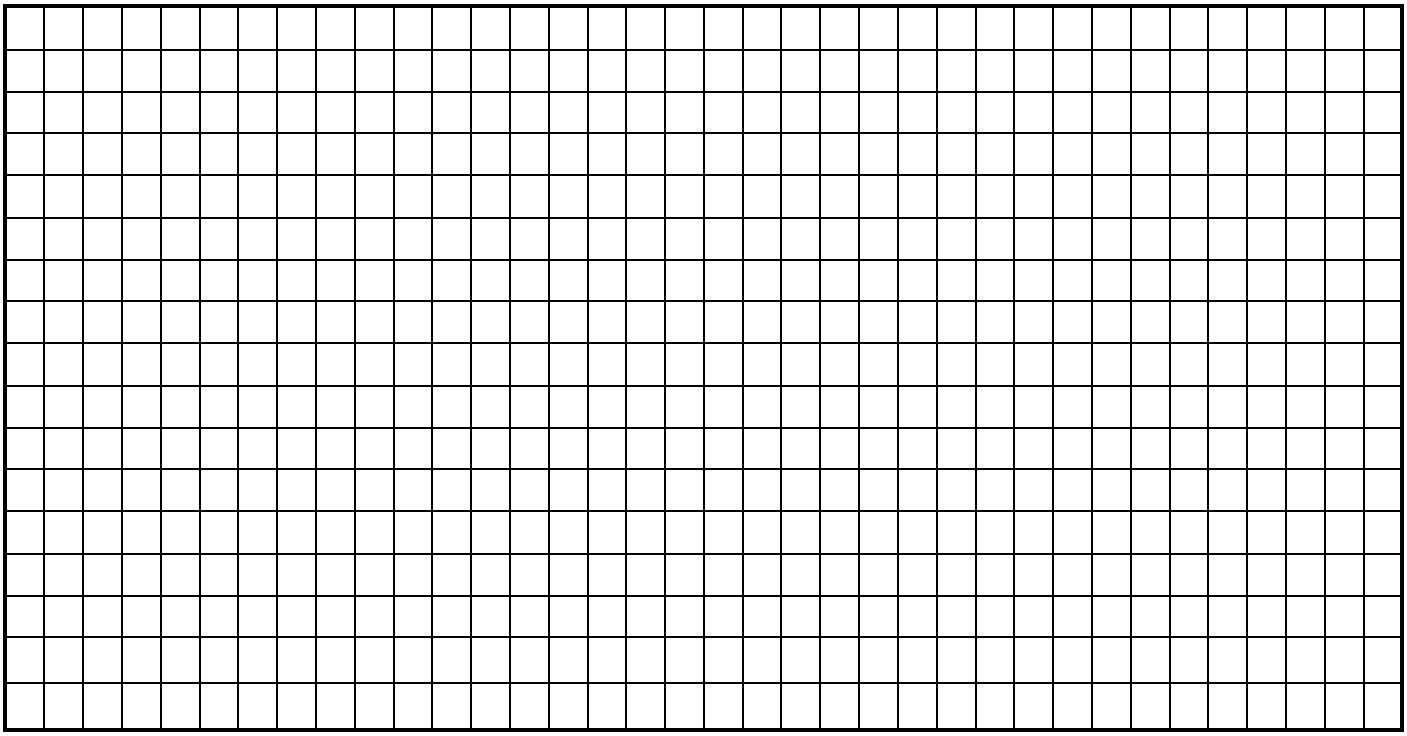
☐ Water lines ☐ Electrical conduits ☐ Photovoltaic Panels ☐ No Equipment on Roof

Does the existing roof have insulation? ☐ **Yes** **Type** _____ **R Value** _____ ☐ **No**

PERMITS ARE REQUIRED FOR THE REMOVAL AND REINSTALLATION OF ROOF TOP EQUIPMENT

SECTION B (Roof Plan)

Sketch Roof Plan: Illustrate all levels and sections, roof drains, scuppers, overflow scuppers and overflow drains. Include dimensions of sections and levels, clearly identify dimensions of elevated pressure zones and locations of parapets.



High-Velocity Hurricane Zone - Uniform Permit Application Form

☐ **RAS 117 (Multi-Ply) (Calculations Req)** ☐ **RAS 150 (Residential Projects Only) FBC Prescriptive** ☐ **RAS 137 (Single-Ply) (Calculations Req)**

Section C (Low Slope Application)

Fill in specific roof assembly components and identify manufacturer

(If a component is not used, identify as "N/A")

System Manufacturer: _____

Product Approval No.: _____

Design Wind Pressures, From RAS 128 or Calculations:

Zone 1': ____ Zone 1: ____ Zone 2: ____ Zone 3: ____

Max: Design Pressure, from the specific product Control System: _____

☐ Insulated ☐ Non-Insulated

Deck:

Type: _____

Gauge/Thickness: _____

Slope: _____

Anchor/Base Sheet & No. of Ply(s): _____

Anchor/Base Sheet Fastener/Bonding Material:

_____

Insulation Base Layer: _____

Base Insulation Size and Thickness: _____

Base Insulation Fastener/Bonding Material:

_____

Top Insulation Layer: _____

Top Insulation Size and Thickness: _____

Top Insulation Fastener/Bonding Material:

_____

Base Sheet(s) & No. of Ply(s): _____

Base Sheet Fastener/Bonding Material:

_____

Ply Sheet(s) & No. of Ply(s): _____

Ply Sheet Fastener/Bonding Material:

_____

Top Ply: _____

Top Ply Fastener/Bonding Material:

_____

Surfacing: _____

Fastener Spacing for Anchor/Base Sheet Attachment:

Zone 1': ____ " oc @ Lap, # Rows ____ @ _____ " oc

Zone 1: ____ " oc @ Lap, # Rows ____ @ _____ " oc

Zone 2: ____ " oc @ Lap, # Rows ____ @ _____ " oc

Zone 3: ____ " oc @ Lap, # Rows ____ @ _____ " oc

Number of Fasteners Per Insulation Board for Insulation Systems:

Zone 1': ___ Zone 1: ___ Zone 2: ___ Zone 3: ___

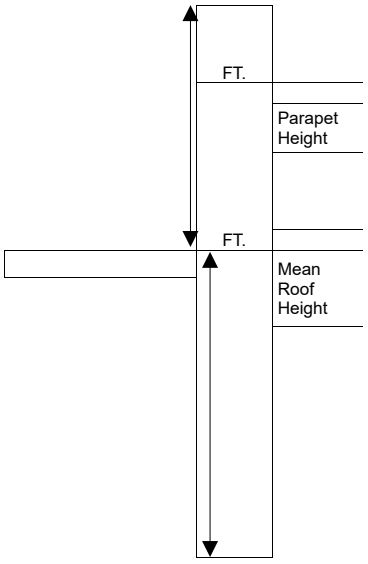
RAS 137 (Single-Ply) Only:

Width of Roll _____" Spacing of Fasteners _____"

Zone 1' _____" Spacing _____"
Zone 1 _____" Spacing _____"
Zone 2 _____" Spacing _____"
Zone 3 _____" Spacing _____"

Illustrate Components Noted and Details as Applicable:
Wood blocking, Gutter, Edge Termination, Stripping, Flashing, Continuous Cleat, Cant Strip, Base Flashing, Counterflashing, Coping, Etc.

Indicate: Mean Roof Height, Parapet Height, Height of Base Flashing, Component Material, Material Thickness, Fastener Type, Fastener Spacing, or Submit Manufacturers' Details that Comply with RAS 111 and Chapter 16.



Continuous Parapet ☐ Yes ☐ NO

If yes, Roof Drainage Calculation (prepared by a PE) for Primary Drainage and Secondary (Overflow) Drainage as per Chapter 11 of the FBC Plumbing Code is required for each roof elevation.

High-Velocity Hurricane Zone - Uniform Permit Application Form

Section D (Steep Sloped Roof System)

Roof System Manufacturer: _____

Product Control Number: _____

Minimum Design Wind Pressures, If Applicable (From RAS 127 or Calculations): _____

Zone 1 _____ Zone 2 _____ Zone 3 _____

Slope Range ☐ >2:12 To 4:12 ☐ >4:12 to 6:12 ☐ >6:12 to 12:12

Roof Shape ☐ All Hip ☐ All Gable ☐ Partial Hip - Partial Gable

Roof Slope:
_____:12

Ridge Ventilation:
☐ Yes ☐ No
Product Control
#_____

Mean Roof Height:
_____

Deck Type:

Type Underlayment:

Insulation:

Fire Barrier:

Fastener Type & Spacing:

Type Cap Sheet:

Adhesive Type:

Roof Covering:

Type & Size Drip Edge:

Section E (Tile Calculations)
For Moment-based tile systems, choose Method 1. Compare the values for M_r with the values from M_f. If the M_f values are greater than or equal to the M_f values, for each area of the roof then the tile attachment method is acceptable.

Enter Positive values in the fields using Method 1 for the calculation of the attachments

Method 1 "Moment-Based Tile Calculations Per RAS 127"

(Zone 1: _____ x λ _____ = _____) – Mg: = _____ = M_{r1} _____ Product Control M_f _____

(Zone 2: _____ x λ _____ = _____) – Mg:= _____ = M_{r2} _____ Product Control M_f _____

(Zone 3: _____ x λ _____ = _____) – Mg:= _____ = M_{r3} _____ Product Control M_f _____

For Uplift-based tile systems, use Method 2. Compare the values for F' with the values for F_r. If the F' values are greater than or equal to the F_r values for each area of the roof, then the title attachment method is acceptable.

Method 2 "Uplift-Based Tile Calculations Per RAS 127"

(Zone 1: _____ x L _____ = _____ x w: = _____) – W: x cos r _____ = F_{r1} _____ Product Approval F' _____

(Zone 2: _____ x L _____ = _____ x w: = _____) – W: x cos r _____ = F_{r2} _____ Product Approval F' _____

(Zone 3: _____ x L _____ = _____ x w: = _____) – W: x cos r _____ = F_{r3} _____ Product Approval F' _____

Where to Obtain Information

Description	Symbol	Where to Find
Design Pressure	Zone 1, 2, 3	From applicable table in RAS 127 or by an engineering analysis prepared by PE based in ASCE 7
Mean Roof Height	H	Job Site
Roof Slope	θ	Job Site
Aerodynamic Multiplier	λ	Product Control
Restoring Moment due to Gravity	M_g	Product Control
Attachment Resistance	M_f	Product Control
Required Moment Resistance	M_r	Calculated
Minimum Attachment Resistance	F^1	Product Control
Required Uplift Resistance	F_r	Calculated
Average Tile Weight	W	Product Control
Tile Dimensions	L = length W = width	Product Control
All calculations must be submitted to the building official at the time of permit application.		

BROWARD COUNTY BOARD OF RULES & APPEALS
ROOFING COMMITTEE MEETING MINUTES
SEPTEMBER 1, 2026
https://broward-org.zoomgov.com/j/1658275200
Meeting ID: 165 827 5200

1. **CALL MEETING TO ORDER:**

   The Board of Rules and Appeals Roofing Committee met on Tuesday, September 1, 2026, via ZoomGov. The meeting was called to order by Chairman Badiu at 12:00 PM.

2. **ROLL CALL:**

Eduard Badiu, Chair	Tim Graboski
Peter Deveaugh, Vice Chair	Constantin Huzdup
Victor Blanco	Adam LeBlanc
Jason Douglas	Peter Panagakos
Jeffrey Falkanger	

3. **APPROVAL OF MINUTES** – July 15, 2026

   A motion to approve the July 15, 2026, minutes was made by Mr. Grabowski and seconded by Mr. Douglas. The motion passed unanimously.

4. **TOPICS FOR DISCUSSION:**

   a. Request to Rescind Board Policy #22-03 Mandatory Countywide Rooftop Mounted Equipment Affidavit

      A motion to rescind Board Policy #22-03 was made by Mr. Grabowski and seconded by Mr. Falkanger. The motion passed unanimously.

   b. Revised Uniform Roof Permit Application

      The Committee reviewed the revised permit application. Aside from one minor edit identified during discussion, the application was accepted as presented. A motion to accept the Revised Uniform Roof Permit Application was made by Mr. Grabowski and seconded by Mr. Falkanger. The motion passed unanimously.

5. **SET NEXT MEETING DATE:** September 14, 2026, at 12:00 PM.

6. **ADJOURNMENT:** The meeting adjourned at 12:23 PM.

DRAFT

Item 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: Chief Mechanical Code Compliance Officer

DATE: September 10, 2026

RE: First Reading of the Proposed Revisions of the Broward County Amendments to the 2023 Florida Building Code, Mechanical, Eighth Edition (FMC), Section 908.8, Cooling Towers

Recommendation

It is recommended that the Board of Rules and Appeals approve, by vote, the proposed revisions of the Broward County Amendments to the 2023 Florida Building Code, Mechanical, Eighth Edition (FMC), Section 908.8, Cooling Towers.

Reasons

At the August 11, 2026, meeting, the Mechanical Committee voted unanimously to eliminate the requirements to achieve a minimum of eight cycles of concentration from the Broward County Amendments to the 2023 FMC and add language requiring cooling towers to be licensed and operated in compliance with the requirements of the Broward County Code of Ordinances, Chapter 34, Article VII-Cooling Tower Water Use Efficiency. This change is due to conflicts between the 2026 modification of the Broward County Code of Ordinances and the 2023 FMC, Section 908.8, Cooling Towers.

Additional Information

1. Proposed Changes of the Broward County Amendments to the 2023 Florida Building Code, Mechanical, Eighth Edition, Section 908.8, Cooling Towers
2. Original Technical Amendment to the 2010 FMC, Section 908.5
3. 2026 Change to Broward County Code of Ordinances 34.168, Regulation of Cooling Towers
4. August 11, 2026, Mechanical Committee Meeting Minutes

Respectfully Submitted,

R Soto

Rolando Soto

PROPOSED

CHAPTER 9 SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT
SECTION 908 COOLING TOWERS, EVAPORATIVE CONDENSERS AND FLUID COOLERS

908.8 Cooling towers.
Cooling towers, both open circuit and closed-circuit type, and evaporative condensers shall comply with Sections 908.8.1 thru 908.8.3.

Exception: Cooling water tower systems utilizing reclaimed water for the total amount of makeup water are exempt from the provisions of section 908.8.1 through 908.8.3, Florida Building Code.

908.8.1 Conductivity and flow-based control of cycles of concentration. New cooling towers and evaporative 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.~~

908.8.2 Drift eliminators. Cooling towers and evaporative condensers shall be equipped with drift eliminators that have a maximum drift rate of 0.002% of the recirculated water volume for counterflow towers and 0.005% of the recirculated water flow for crossflow towers.

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.~~ Cooling towers shall be licensed and operated in compliance with the requirements of the Broward County Code of Ordinances, Chapter 34, Article VII-Cooling Tower Water Use Efficiency.

DRAFT

CHAPTER 9
SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

SECTION 901
GENERAL

901.1 Scope. This chapter shall govern the approval, design, installation, construction, maintenance, *alteration* and repair of the appliances and *equipment* specifically identified herein and factory-built fireplaces. The approval, design, installation, construction, maintenance, *alteration* and repair of gas-fired appliances shall be regulated by the *Florida Building Code, Fuel Gas.*

901.2 General. The requirements of this chapter shall apply to the mechanical *equipment* and appliances regulated by this chapter, in addition to the other requirements of this code.

901.3 Hazardous locations. Fireplaces and solid fuel-burning appliances shall not be installed in hazardous locations.

901.4 Fireplace accessories. *Listed* fireplace accessories shall be installed in accordance with the conditions of the listing and the manufacturer's installation instructions.

SECTION 902
MASONRY FIREPLACES

902.1 General. Masonry fireplaces shall be constructed in accordance with the *Florida Building Code, Building*.

SECTION 903
FACTORY-BUILT FIREPLACES

903.1 General. Factory-built fireplaces shall be *listed* and *labeled* and shall be installed in accordance with the conditions of the listing. Factory-built fireplaces shall be tested in accordance with UL 127.

903.2 Hearth extensions. Hearth extensions of *approved* factory-built fireplaces and fireplace stoves shall be installed in accordance with the listing of the fireplace. The hearth extension shall be readily distinguishable from the surrounding floor area.

903.3 Unvented gas log heaters. An unvented gas log heater shall not be installed in a factory-built fireplace unless the fireplace system has been specifically tested, *listed* and *labeled* for such use in accordance with UL 127.

SECTION 904
PELLET FUEL-BURNING APPLIANCES

904.1 General. Pellet fuel-burning appliances shall be *listed* and *labeled* in accordance with ASTM E 1509 and shall be installed in accordance with the terms of the listing.

SECTION 905
FIREPLACE STOVES AND ROOM HEATERS

905.1 General. Fireplace stoves and solid-fuel-type room heaters shall be *listed* and *labeled* and shall be installed in accordance with the conditions of the listing. Fireplace stoves shall be tested in accordance with UL 737. Solid-fuel-type room heaters shall be tested in accordance with UL 1482. Fireplace inserts intended for installation in fireplaces shall be *listed* and *labeled* in accordance with the requirements of UL 1482 and shall be installed in accordance with the manufacturer's installation instructions.

905.2 Connection to fireplace. The connection of solid fuel appliances to *chimney* flues serving fireplaces shall comply with Sections 801.7 and 801.10.

SECTION 906
FACTORY-BUILT BARBECUE APPLIANCES

906.1 General. Factory-built barbecue appliances shall be of an *approved* type and shall be installed in accordance with the manufacturer's installation instructions, this chapter and Chapters 3, 5, 7, 8 and the *Florida Building Code, Fuel Gas*.

SECTION 907
INCINERATORS AND CREMATORIES

907.1 General. Incinerators and crematories shall be *listed* and *labeled* in accordance with UL 791 and shall be installed in accordance with the manufacturer's installation instructions.

SECTION 908
COOLING TOWERS, EVAPORATIVE CONDENSERS AND FLUID COOLERS

908.1 General. A cooling tower used in conjunction with an air-conditioning *appliance* shall be installed in accordance with the manufacturer's installation instructions. The design of such cooling tower shall be in accordance with the requirements of the *Florida Building Code, Building* for a structure. Unless otherwise stated in this code, water cooling towers shall comply with NFPA 214.

908.2 Access. Cooling towers, evaporative condensers and fluid coolers shall be provided with ready access.

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*.

908.4 Support and anchorage. Supports for cooling towers, evaporative condensers and fluid coolers shall be designed in accordance with the *Florida Building Code, Building*. Seismic restraints shall be as required by the *Florida Building Code, Building*.

908.5 Water supply. Water supplies and protection shall be as required by the *Florida Building Code, Plumbing*.

908.5.1 New cooling towers, including cooling tower 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.

908.5.2 The quality of cooling tower water shall comply with the equipment manufacturer's guidelines.

908.5.3 Cooling towers shall be equipped with efficient drift eliminators that achieve drift reduction to a maximum of 0.002% of the recirculated water volume for counterflow towers and 0.005% of the recirculated water flow for cross-flow towers.

908.5.4 An affidavit of compliance demonstrating compliance with section 908.5 Florida Building Code 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.

Exception: Cooling tower systems utilizing reclaimed water for makeup water are exempt from the provisions of section 908.5.1 thru 908.5.4 Florida Building Code, Mechanical.

908.6 Drainage. Drains, overflows and blowdown provisions shall be indirectly connected to an *approved* disposal location. Discharge of chemical waste shall be *approved* by the appropriate regulatory authority.

908.7 Refrigerants and hazardous fluids. Heat exchange *equipment* that contains a refrigerant and that is part of a closed refrigeration system shall comply with Chapter 11. Heat exhange *equipment* containing heat transfer fluids which are flammable, combustible or hazardous shall comply with the *Florida Fire Prevention Code*.

SECTION 909
VENTED WALL FURNACES

909.1 General. Vented wall furnaces shall be installed in accordance with their listing and the manufacturer's installation instructions. Oil-fired furnaces shall be tested in accordance with UL 730.

909.2 Location. Vented wall furnaces shall be located so as not to cause a fire hazard to walls, floors, combustible furnishings or doors. Vented wall furnaces installed between bathrooms and adjoining rooms shall not circulate air from bathrooms to other parts of the building.

909.3 Door swing. Vented wall furnaces shall be located so that a door cannot swing within 12 inches (305 mm) of an air inlet or air outlet of such furnace measured at right angles to the opening. Doorstops or door closers shall not be installed to obtain this *clearance*.

909.4 Ducts prohibited. Ducts shall not be attached to wall furnaces. Casing extension boots shall not be installed unless *listed* as part of the *appliance*.

909.5 Manual shutoff valve. A manual shutoff valve shall be installed ahead of all controls.

909.6 Access. Vented wall furnaces shall be provided with access for cleaning of heating surfaces, removal of burners, replacement of sections, motors, controls, filters and other working parts, and for adjustments and lubrication of parts requiring such attention. Panels, grilles and access doors that must be removed for normal servicing operations shall not be attached to the building construction.

SECTION 910
FLOOR FURNACES

910.1 General. Floor furnaces shall be installed in accordance with their listing and the manufacturer's installation instructions. Oil-fired furnaces shall be tested in accordance with UL 729.

910.2 Placement. Floor furnaces shall not be installed in the floor of any aisle or passageway of any auditorium, public hall, place of assembly, or in any egress element from any such room or space.

With the exception of wall register models, a floor furnace shall not be placed closer than 6 inches (152 mm) to the nearest wall, and wall register models shall not be placed closer than 6 inches (152 mm) to a corner.

The furnace shall be placed such that a drapery or similar combustible object will not be nearer than 12 inches (305 mm) to any portion of the register of the furnace. Floor furnaces shall not be installed in concrete floor construction built on grade. The controlling thermostat for a floor furnace shall be located within the same room or space as the floor furnace or shall be located in an adjacent room or space that is permanently open to the room or space containing the floor furnace.

910.3 Bracing. The floor around the furnace shall be braced and headed with a support framework design in accordance with the *Florida Building Code, Building*.

910.4 Clearance. The lowest portion of the floor furnace shall have not less than a 6-inch (152 mm) clearance from the grade level; except where the lower 6-inch (152 mm) portion of the floor furnace is sealed by the manufacturer to prevent entrance of water, the minimum clearance shall be reduced to not less than 2 inches (51 mm). Where these clearances are not present, the ground below and to the sides shall be excavated to form a pit under the furnace so that the required clearance is provided beneath the lowest portion of the furnace. A 12-inch (305 mm) minimum clearance shall be provided on all sides except the control side, which shall have an 18-inch (457 mm) minimum clearance.

SECTION 911
DUCT FURNACES

911.1 General. Duct furnaces shall be installed in accordance with the manufacturer's installation instructions. Electric furnaces shall be tested in accordance with UL 1995.

SECTION 912
INFRARED RADIANT HEATERS

912.1 Support. Infrared radiant heaters shall be fixed in a position independent of fuel and electric supply lines. Hangers and brackets shall be noncombustible material.

912.2 Clearances. Heaters shall be installed with clearances from combustible material in accordance with the manufacturer's installation instructions.

SECTION 913
CLOTHES DRYERS

913.1 General. Clothes dryers shall be installed in accordance with the manufacturer's installation instructions. Electric residential clothes dryers shall be tested in accordance with UL 2158. Electric coin-operated clothes dryers shall be tested in accordance with UL 2158. Electric commercial clothes dryers shall be tested in accordance with UL 1240.

Sec. 34-167. - Application of article.

The provisions of this article shall apply to all users, as defined herein, within the geographic boundaries of Broward County. This article shall not apply to cooling towers using reclaimed water or to persons who are not subject to the requirements of the Florida Building Code.

(Ord. No. 2013-22, § 2, 4-23-13)

Sec. 34-168. - Regulation of cooling towers.

(a) *License required:* Unless exempted in Section 34-169, owner(s) of property within the geographic boundaries of Broward County upon which new cooling towers that use the water resources of the County are located, including cooling tower replacements, shall obtain from the Division a "Cooling Tower License" to operate a cooling tower.

(b) *Type of license*: Property owners, or their representatives who have the legal ability to perform or authorize the operation and maintenance of the cooling tower, shall obtain a Cooling Tower License within twelve (12) months after a cooling tower replacement or new installation.

(c) *Annual renewal of Cooling Tower License*: Licenses shall be renewed annually on or before March 31. Each renewal application shall be accompanied by the applicable fee, a log of the operation and maintenance schedule for the components of the cooling tower system, and a signed affidavit of compliance with the Florida Building Code from the service provider. The signed affidavit shall include all dates of service within the reporting period and verification of system operation at a minimum of eight (8) cycles of concentration.

Cooling towers located in areas served by potable water with a hardness greater than 120 mg/L as calcium carbonate may be permitted to operate at a lower minimum number of cycles of concentration when the minimum requirement of eight (8) cycles cannot be achieved.

(d) *Requirements to obtain a Cooling Tower License:* Applications for a Cooling Tower License shall be on the forms supplied by the Division and shall include documentation demonstrating that the new or replacement cooling tower:

(1) Is operated with conductivity controllers and make-up and blow-down meters;

(2) Achieves a minimum of eight (8) cycles of concentration; and

(3) Is equipped with efficient drift eliminators that achieve drift reduction to a maximum of 0.002% of the recirculated water volume for counterflow towers and 0.005% of the recirculated water flow for cross-flow towers.

(Ord. No. 2013-22, § 2, 4-23-13; Ord. No. 2026-16, § 29, 5-12-26)

Sec. 34-169. - Exemption.

Cooling tower systems utilizing reclaimed water are exempt from the licensing requirements under this article.

(Ord. No. 2013-22, § 2, 4-23-13)

1. CALL MEETING TO ORDER:

The Board's Mechanical Committee held an advertised meeting on Tuesday, August 11, 2026, virtually via Zoom. The meeting was called to order by Chairman Feller at 1:30 PM.

2. ROLL CALL:

Steven M. Feller. P.E., Chair	Wesley E. Neely
Robert A. Kamm, P.E., Vice Chair	Christopher Figueras
Robert Taylor	Julio Briceno
Gregg D'Attile	Michael Charnin
Phil London	Roman Sanchez
Jack Walsh	Jack Mitchell, P.E.

3. APPROVAL OF MINUTES – August 27, 2025

A motion to approve the minutes was made by D'Attile and seconded by Vice Chair Kamm, and the motion passed unanimously.

4. TOPICS FOR DISCUSSION:

Chair Feller introduced the agenda item concerning proposed amendments to the Broward County Board of Rules and Appeals modifications for the 2023 Florida Mechanical Code relating to cooling towers. The committee was asked to review and provide a recommendation.

a. Mr. Rolando Soto, P.E., Mechanical Chief Code Compliance Officer for the Broward County Board of Rules and Appeals, explained that Broward County had recently amended an ordinance originally adopted in 2012 relating to cooling tower efficiency. He stated that environmental officials reported significantly high-water hardness in certain parts of the county, resulting in scaling within cooling towers and condenser water systems. Mr. Soto further noted that environmental reviewers may approve a cooling tower design even when that design does not meet the A/C cycle concentration requirement still present in the existing building-code amendment, creating a conflict in which the building department could reject installations despite environmental approval. Mr. Soto outlined the proposed changes. He stated that the amendment would remove the affidavit of compliance requirement under Section 908.8.3 and shift responsibility for ongoing cooling-tower operation and licensing to Broward County Ordinance Chapter 34, Article 7. He emphasized that the building department would retain requirements for conductivity controllers, makeup and blow-down meters, and drift eliminators, ensuring operators still have the tools necessary to achieve appropriate cycles of concentration,

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while eliminating enforcement of minimum cycle concentration from the permitting process

b. Chair Feller added that the proposed adjustments simplify the approval process, reduce administrative burdens, and eliminate conflicts between the environmental department and building department. He stated that the change “makes a lot of sense” and “gets us out of trouble with the county.” Committee members voiced general agreement.

A motion to recommend approval of the amendment was then made by Mr. Briceno and seconded by Mr. Figueras, and the motion passed unanimously

c. During the meeting, Member Gregg D’Attile asked the committee for guidance on hurricane tie-down strap requirements for residential A/C condensers. In response, members discussed that manufacturer-provided tie-down specifications are generally sufficient for residential units, whereas commercial installations typically require structural engineering. The committee further clarified the difference between NOAs or Florida product approvals, documents that may be used repeatedly, and site-specific engineered drawings, which must be signed and sealed for each individual project. Staff also noted that manufacturer-issued anchoring details on company letterhead are acceptable under existing formal interpretations and do not require an engineering seal. The discussion was informational only, and no motion was made.

5. **SET NEXT MEETING DATE (IF NECESSARY) –** No meeting date was set

6. **ADJOURNMENT** – The meeting adjourned at 1:48 PM.

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Item 5

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 Mechanical Code Compliance Officer

DATE: September 10, 2026

RE: First Reading of the Broward County Board of Rules and Appeals Technical Amendments to the 9th Edition (2026) of the Florida Building Code (FBC)

Recommendation

It has been recommended that the Board of Rules and Appeals re-adopt, by vote, the Broward County Board of Rules and Appeals Technical Amendments 9th Edition (2026) of the Florida Building Code (FBC).

Reasons

The 9th Edition of the Florida Building Code will become effective on December 31, 2026. Staff reviewed BORA's current Technical Amendments, revised the code references, and, when needed, made changes to reflect the evolution of the state code. No substantive changes have been made to the text of the amended sections. These sections were adopted and re-adopted in previous code editions.

Additional Information

Amended Code Sections:

1. FBC Building,
   - Chapter 4, Sections 454.1.4.1, 454.1.4.2.5, 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

Respectfully Submitted,

R Soto

Rolando Soto

Broward County Technical Amendments to the 2026 Florida Building Code, Residential, 9th Edition

~~Stricken through text~~ are deletions from the Florida Building Code, Building, 9th Edition.
Underscored text are additions to Florida Building Code, Building, 9th Edition.

454.1 Public swimming pools and bathing places.

454.1.4 Electrical systems.

454.1.4.1 Electrical equipment and wiring.
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.

454.1.4.2.5 Voltage limitation.
Underwater lighting, or lighting that may be exposed to nozzle-directed pool water, shall not exceed ~~30 volts DC or 15 volts AC~~ 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.

Such lights shall be installed in accordance with manufacturer's installation instructions and be listed by a nationally recognized testing laboratory.

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Broward County Technical Amendments to the 2026 Florida Building Code, Residential, 9th Edition

~~Stricken through text~~ are deletions from the Florida Building Code, Building, 9th Edition.
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454.2 Private swimming pools.

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.

Exception: Swimming pools and spas may be bonded by single copper conductor where the following requirements are met:

1. At least one minimum 8 AWG bare solid copper conductor shall be provided.
2. The conductors shall follow the contour of the perimeter surface.
3. Only listed splicing devices or exothermic welding shall be permitted.
4. The required conductor shall be 18 inches to 24 inches (450 mm to 600 mm) from the inside walls of the pool.
5. The required conductor shall be secured within or under the perimeter surface 4 inches to 6 inches (100 mm to 150 mm) below the subgrade.

454.2.16.1 Voltage limitation.

Underwater lighting, or lighting that may be exposed to nozzle-directed pool water, shall not exceed ~~30 volts DC or 15 volts AC~~ the Low Voltage Contact Limit, which is defined as a voltage not exceeding the following values:

15 volts (RMS) for sinusoidal alternating current.
21.2 volts peak for nonsinusoidal alternating current.
30 volts continuous, direct current.
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.

Such lights shall be installed in accordance with manufacturer's installation instructions and be listed by a nationally recognized testing laboratory.

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Broward County Amendments to Chapter 3,
Subsection 314 of the 2026 Florida Building Code, Plumbing, 9th Edition

- ~~Stricken through text~~ are deletions from the Florida Building Code, Plumbing, 9th Edition.
- Underscored text are additions to Florida Building Code, Plumbing, 9th 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 to an *approved* place of disposal. Such piping shall maintain a 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:
   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. In existing buildings, condensate may be collected and conveyed to a cooling tower or discharged to an approved place of disposal.

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Broward County Amendments to Chapter 6,
Subsection 604.4 of the 2026 Florida Building Code, Plumbing, 9th Edition

- ~~Stricken through text~~ are deletions from the Florida Building Code, Plumbing, 9th Edition.
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SECTION 604 DESIGN OF BUILDING WATER DISTRIBUTION SYSTEM

604.4 Maximum flow and water consumption.
The maximum water consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4.

Exceptions:

1. Blowout design water closets having a water consumption not greater than 3 1/2 gallons (13 L) per flushing cycle.
2. Vegetable sprays.
3. Clinical sinks having a water consumption not greater than 4 1/2 gallons (17 L) per flushing cycle.
4. Service sinks.
5. Emergency showers
6. All fixtures, fittings, and appliances with U.S. Environmental Agency WaterSense® (EPA) label.

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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 [b]
Lavatory, Private	~~2.2~~ 1.5 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 [a, c]	2.0 ~~2.5~~ gpm at 80 psi
Sink Faucet	2.2 gpm at 60 psi
Urinal	~~1.0~~ 0.5 gallon per flushing
Water Closet	~~1.6~~ 1.28 gallons per flushing cycle
Dishwasher (Residential)*	6.5 gallons per cycle or less (Energy Star/WaterSense Certified)
Dishwasher (Commercial)	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)	1.0 gallons per rack for high temperature machines and 1.7 gallons per rack for low temperature machines.
Washing Machine*	Water factor of 8 or lower (EnergyStar/WaterSense Certified) [d]

*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. Shower head shall comply with all requirements for high-efficiency showerheads in ASME A112.18.1/CSA B123.1.
d. Water factor in gallons per cycle per cubic foot

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Broward County Amendments to Appendix F of the 2026 Florida Building Code, Plumbing, 9th Edition

- ~~Stricken through text~~ are deletions from the Florida Building Code, Plumbing, 9th Edition.
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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.

A. Permits

1. **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.

B. 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

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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.

C. 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

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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.

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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.
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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.

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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.

F. 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.

G. 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.

H. Pumps

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. 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. The pumping system shall be protected against the effects of the interruption of water flow.

I. 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.

J. 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.

K. 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

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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.

L. Backflow Prevention Methods: Provide backflow prevention assemblies at all cross-connections 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.

1. 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.

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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.
   SCS Code 642: Well.

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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 ~~firings~~ fittings 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

1. 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

1. 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.

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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

1. 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

1. 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.

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PART V: INSTALLATION

A. Pipe Installation

1. 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:

   a. Vehicle traffic areas.

Pipe Size (Inches)	Depth of Cover (Inches)
½ – 2 ½	18
3 – 5	24
6 and larger	30

   b. All areas except vehicle traffic:

Pipe Size (Inches)	Depth of Cover (Inches)
½ – 1 ½	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 or other approved methods 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

1. 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

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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.

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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.
5. 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.
2. 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.

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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:

1. 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:

$$L = \frac{SDP}{133,200}$$

PVC, GASKETED JOINT:

$$L = \frac{NDP}{7,400}$$

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. Open Trench Inspection: The trench at all joints and every transition in the pipe size will be open 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

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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.

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Broward County Amendments to Chapter 29,
Subsection 2903 of the 2026 Florida Building Code, Residential, 9th Edition

- ~~Stricken through text~~ are deletions from the Florida Building Code, Residential, 9th Edition.
- Underscored text are additions to Florida Building Code, Residential, 9th 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~~ 1.5 gpm at 60 psi
Shower Head [a]	2.0 ~~2.2~~ gpm at 80 psi
Sink Faucet	2.2 gpm at 60 psi
Water Closet	~~1.6~~ 1.28 gallons per flushing cycle
Dishwasher (Residential)	6.5 gallons per cycle or less (Energy Star/Watersense Certified) [c]
Washing Machine	Water factor or 8 or lower (Energy Star/Watersense Certified) [c]

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. Water factor in gallons per cycle per cubic foot
   Exception: All fixtures, fittings and appliances with U.S. Environmental Agency WaterSense® (EPA) Label

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Broward County Technical Amendments to the 2026 Florida Building Code, Residential, 9th Edition

~~Stricken through text~~ are deletions from the Florida Building Code, Building, 9th Edition.
Underscored text are additions to Florida Building Code, Building, 9th Edition.

CHAPTER 45— PRIVATE SWIMMING POOLS
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.

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.

Exception: Swimming pools and spas may be bonded by single copper conductor where the following requirements are met:

1. At least one minimum 8 AWG bare solid copper conductor shall be provided.
2. The conductors shall follow the contour of the perimeter surface.
3. Only listed splicing devices or exothermic welding shall be permitted.
4. The required conductor shall be 18 inches to 24 inches (450 mm to 600 mm) from the inside walls of the pool.
5. The required conductor shall be secured within or under the perimeter surface 4 inches to 6 inches (100 mm to 150 mm) below the subgrade.

R4501.16.1 Voltage limitation.
Underwater lighting, or lighting that may be exposed to nozzle-directed pool water, shall not exceed ~~30 volts DC or 15 volts AC~~ 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.

Such lights shall be installed in accordance with the manufacturer's installation instructions and be listed by a nationally recognized testing laboratory.

DRAFT

Broward County Amendments to Chapter 3,
Subsection 307.2 of the 2026 Florida Building Code, Mechanical, 9th Edition

- ~~Stricken through text~~ are deletions from the Florida Building Code, Mechanical, 9th Edition.
- Underscored text are additions to Florida Building Code, Mechanical, 9th Edition.

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 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 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:
1.1 The equipment comprises 10% or less of the total capacity of the cooling tower 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.

DRAFT

Broward County Amendments to Subsection 908.3 and Chapter 15 of the 2026 Florida Building Code, Mechanical, 9th Edition

- ~~Stricken through text~~ are deletions from the Florida Building Code, Mechanical, 9th Edition.
- Underscored text are additions to Florida Building Code, Mechanical, 9th Edition.

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, Refrigerating and Air-Conditioning Engineers, Inc.
1791 Tullie Circle, NE Atlanta, GA 30329

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
188-2021	Legionellosis: Risk Management for Building Water Systems	908.3.1

DRAFT

Broward County Amendments to Chapter 9,
Subsection 908.8 of the 2026 Florida Building Code, Mechanical, 9th Edition

- ~~Stricken through text~~ are deletions from the Florida Building Code, Mechanical, 9th Edition.
- Underscored text are additions to Florida Building Code, Mechanical, 9th Edition.

CHAPTER 9 SPECIFIC APPLIANCES, FIREPLACES, AND SOLID FUEL-BURNING EQUIPMENT

SECTION 908 COOLING TOWERS, EVAPORATIVE CONDENSERS, AND FLUID COOLERS

908.8 Cooling towers.
Cooling towers, both open circuit and closed-circuit type, and evaporative condensers shall comply with Sections 908.8.1 ~~and 905.8.2~~ 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 section 908.8.1 through 908.8.3, Florida Building Code.

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.~~ New cooling towers, and evaporative condensers, including replacements, shall be operated with conductivity controllers, as well as make-up and blowdown (bleed off) meters.

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.

908.8.3 Cooling towers shall be licensed and operated in compliance with the requirements of the Broward County Code of Ordinances, Chapter 34, Article VII-Cooling Tower Water Use Efficiency.

DRAFT

Item 6

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: September 10, 2026

RE: Administrative Director Annual Executive Performance Review

Recommendation

I respectfully request that the Board of Rules and Appeals review my Annual Executive Performance Review and approve, by vote, a merit increase based on the performance review.

Reasons

The attached Annual Executive Performance Review reflects my continued commitment to the effective and efficient administration of the Board of Rules and Appeals. During the review period, I have worked to advance the Board's priorities, maintain sound fiscal and operational management, and ensure that BORA continues to fulfill its regulatory and public-safety responsibilities.

Based on the results of my Annual Executive Performance Review and my performance throughout the review period, I respectfully request the Board's approval of a merit increase at the Board's discretion.

Additional Information

- Annual Executive Performance Review for Dr. Ana C. Barbosa

Respectfully Submitted,

Dr. Ana C. Barbosa

Board of County Commissioners, Broward County, Florida

FINANCE AND ADMINISTRATIVE SERVICES DEPARTMENT
HUMAN RESOURCES DIVISION

EXECUTIVE PERFORMANCE REVIEW

Employee: Ana C. Barbosa	Job Title: Administrative Director
Department/Division/Office: Board of Rules and Appeals	
Rating Period From: October 1, 2025 To: September 30, 2026	Anniversary Date: August 22
Type: X Annual Follow-up ☒ Annual ☐ Follow-up	

This form is used to evaluate the following executive positions: Deputy County Administrator, Assistant County Administrator, Department Director, Office Director, and Assistant to the County Administrator. The Executive Performance Review ("EPR") is designed to evaluate the executive's performance based on the results of defined performance goals which align with the County's strategic business plan, as well as the executive's performance in core competencies. The evaluator has the discretionary judgment to weigh Part I/Performance Goals and Part II/Core Competencies based on level of importance.

RATING LEVELS:

The evaluator should rate each goal or competency as a whole number (5, 4, 3, 2, or 1) defined as follows:
5 – DISTINGUISHED: Consistently exceeds expectations
4 – ACHIEVED EXPECTATIONS AND MORE: Meets expectations and frequently exceeds expectations
3 – ACHIEVED EXPECTATIONS: Meets expectations
2 – MORE IS EXPECTED: Occasionally meets expectations; performance needs much improvement
1 – UNSATISFACTORY: Fails to meet expectations

WEIGHTING: To provide appropriate importance to each category, the evaluator weighs each Performance Goal and/or Core Competency using a whole percentage number. No single weighting is to be less than 10%. The weights for Part I and Part II must equal 100% when added together. To calculate the weighted total of an item, multiply rating level times the weighting level. For Example, rating level is 4 and weighting level is 50 % (or .50), then the weighted total for the item is 2.

CURRENT RATING PERIOD

PART I. PERFORMANCE GOALS

Performance Accountability Criteria: Strategic Business Plan (PAC/SBP)
Special Focus Goals

This section assesses the results of the executive's skills in developing and meeting performance goals which align with Broward County Board of County Commissioners' Mission, Vision, Goals and Strategic Business Objectives. A Special Focus Goal is a project or objective in addition to the executive's strategic goals. Goals are to be written using the "**SMART"** style. (**S** – Specific; **M** – Measurable; **A** – Attainable; **R** – Relevant; **T** – Timely). Write specific comments to justify the rating and weighting for each PAC/SBP. If more than three PAC/SBPs, please use an attachment.

PAC/SBP 1: DELIVERY OF BOARD GOALS AND OBJECTIVES	**RATING LEVEL**	**WEIGHTING LEVEL**	**WEIGHTED TOTAL**
	5	X .40 =	**2.00**

Evaluator's Comments (include specific examples):
Delivered Board priorities while protecting BORA's independent statutory role. Led implementation and stakeholder guidance concerning HB 803 and HB 399; coordinated time-sensitive appeals and committee matters; advanced Chapter 1 amendments and statewide private-provider forms; and kept the Board informed of significant legal, operational, and legislative issues.

PAC/SBP 2: DELIVERY OF BUSINESS PLAN ITEMS OTHER THAN BOARD GOALS AND OBJECTIVES	**RATING LEVEL**	**WEIGHTING LEVEL**	**WEIGHTED TOTAL**
	4	X .35 =	**1.40**

Evaluator's Comments (include specific examples):
Advanced BORA's business plan through improved BSIP data coordination, ISO outreach, policy and form review, recruitment, compensation planning, budget administration, and preparation for the office relocation. Maintained continuity of Board, certification, records, appeal, and municipal-support functions while managing competing deadlines and vacancies.

PAC/SBP 3: OTHER/SPECIAL FOCUS (IF ANY) DESCRIBE:	**RATING LEVEL**	**WEIGHTING LEVEL**	**WEIGHTED TOTAL**
	5	X .25 =	**1.25**

Evaluator's Comments (include specific examples):
Special focus: modernized private-provider and stakeholder guidance while strengthening municipal partnerships. Developed practical implementation language, clarified jurisdictional boundaries, coordinated with building officials and industry representatives, and used technology and AI responsibly to improve research, drafting, workflow, and response time.

PERFORMANCE GOALS TOTAL WEIGHTED RATING	**OVERALL GOALS RATING**	
	WEIGHTING LEVEL (100%)	**WEIGHTED TOTAL**
Weighting Level: Add the weighted level for all Goals (PAC/SBP and Special Focus Goals); total weights must equal 100% (1.00 expressed as decimal) **Weighted Total:** Add the Weighted Total for all Goals	**1.00**	**4.65**

PART II. CORE COMPETENCIES

Models Broward County's Mission, Leadership Philosophy, and Values

(CURRENT RATING PERIOD)

Mission

The business of Broward County Government is to deliver cost-effective and collaborative services to enhance and promote the quality of life for our residents, businesses, and visitors.

Leadership Philosophy

Broward County is a diverse organization that is committed to leadership with integrity. As outcome-driven visionaries with a strategic focus, we are dedicated to organizational excellence through:

- Fostering an environment of trust;
- Collaborative decision-making;
- Resilience in the face of challenges; and
  Cultivating staff through teamwork and active mentoring.

LEADERSHIP: DEVELOPS and uses effective strategies that demonstrate fiscal responsibility and leadership styles to influence and respond to the community; builds organizational capacity for rapid change and exhibits flexibility in anticipating and conducting the business of government.	**RATING LEVEL**	**WEIGHTING LEVEL**	**WEIGHTED TOTAL**
	5	X .20 =	**1.00**
Evaluator's Comments (include specific examples): Ana leads with integrity, accountability, resilience, and sound fiscal judgment. She anticipates legislative and operational change, makes timely decisions, and builds organizational capacity through policy modernization, cross-training, recruitment strategies, and continuity planning. She accepts responsibility for difficult decisions and maintains BORA's credibility and independence.			
COMMUNICATION: Develops and uses effective strategies that establish communication plans and/or systems to ensure that communications fully support and align with the strategic direction of the organization; maintains personal credibility in written and oral communications; prepares timely and well-written agenda items and other correspondence; and fosters and builds partnerships by working cooperatively and across internal and external agency boundaries to address the general public's concerns in a proactive and customer-focused approach.	**RATING LEVEL**	**WEIGHTING LEVEL**	**WEIGHTED TOTAL**
	5	X .20 =	**1.00**
Evaluator's Comments (include specific examples): Ana communicates clearly, promptly, and at the appropriate level for each audience. She keeps the Board Chair, members, legal counsel, staff, building officials, and external stakeholders informed; prepares organized and persuasive correspondence; translates complex legal and technical issues into practical guidance; and corrects misunderstandings without unnecessarily escalating conflict.			

	RATING LEVEL	WEIGHTING LEVEL	WEIGHTED TOTAL
CUSTOMER FOCUS: Develops and implements effective strategies that demonstrate commitment for satisfying internal and external customers by adhering to "OUR BEST. NOTHING LESS." and to the SUNsational Service® standards; recognizes the value of superior customer service by readily readjusting priorities to respond to pressing and changing community and organizational challenges; and makes meaningful change to improve the services, programs, and processes in the delivery of quality public service.	**5**	X .15 =	**.75**
Evaluator's Comments (include specific examples): Ana is accessible, responsive, and solution-focused. She readjusts priorities when urgent appeals, citizen concerns, municipal questions, or Board matters arise and ensures stakeholders receive clear direction. Her outreach and follow-through strengthen trust in BORA and improve service to municipal departments, industry participants, and the public.			
WORKFORCE DEVELOPMENT: Sets meaningful performance objectives for self and/or others. Completes performance reviews in a timely manner. Encourages, supports, and reinforces the development of employee skill sets and provides opportunities to apply those skills sets in their current role and/or in preparation of new roles; creates an environment where learning is a regular part of daily work and focuses on sharing knowledge and creating an engaged workforce; develops a capacity for rapid change and flexibility in conducting business; and recognizes employee success.	**4**	X .15 =	**.60**
Evaluator's Comments (include specific examples): Ana sets clear expectations, completes meaningful appraisals, provides timely coaching and corrective feedback, and recognizes strong performance. She has advocated for updated classifications, a competitive FY 2027 pay plan, and a revised recruitment strategy for the long-vacant Energy Chief position while encouraging knowledge sharing and cross-training.			
ANALYTICAL/STRATEGIC THINKING: Demonstrates the use of logical, systemic, and sequential approach in analyzing, collecting, and evaluating data; recognizes external and internal factors, which may affect the organization's sustainability; displays knowledge and expertise in directing the agency's operations; formulates a strategic plan to achieve the desired outcome(s) with a focus on innovation, quality services, and responsible fiscal management.	**5**	X .15 =	**.75**
Evaluator's Comments (include specific examples): Ana carefully separates factual, legal, technical, and jurisdictional issues before recommending action. She evaluates statutes, policies, data, prior practice, and stakeholder impact; identifies organizational risk; and develops defensible solutions. Her work on legislative implementation, BSIP data, appeals, ISO matters, and private-provider requirements demonstrates strong strategic judgment.			
RESULTS FOCUS: Manages daily operations which produce results. Develops, communicates, and follows through to complete work in support of Commission goals and business plans; values and leverages diversity in our community by initiating collaboration with and among stakeholders to produce results that create and balance value; and implements meaningful change to improve services, programs, and processes based on critical data and information about key processes, outputs, and results.	**5**	X .15 =	**.75**
Evaluator's Comments (include specific examples): Ana consistently converts complex issues into completed work. During the rating period, she advanced legislative guidance, appeals, policy updates, Board and committee work, recruitment, compensation planning, BSIP coordination, and office-relocation preparations while maintaining daily operations. She follows through, documents decisions, and holds herself and others accountable for results.			
COMPETENCIES TOTAL WEIGHTED RATING		**OVERALL COMPETENCIES RATING**	
		WEIGHTING LEVEL (100%)	**WEIGHTED TOTAL**

Weighting Level: Add the weighting level for all competencies; total weights must equal 100% (1.00 expressed as decimal) **Weighted Total:** Add the Weighted Total for all competencies	**1.00**	**4.85**

PART III. EPR COMBINED WEIGHTED PERFORMANCE RATING

Weigh Part I and Part II using a whole percentage number expressed as a decimal. The weights must be at least 10% (0.10 expressed as a decimal), and no more than 90% (0.90 expressed as a decimal). Part I and Part II weights must equal 100% when added together.

Reminder: The evaluator has the discretionary judgment to weigh Part I/Performance Goals and Part II/Core Competencies based on level of importance.

Total Weighted Rating **X** Weight **=** Overall Weighted Performance Rating

	TOTAL WEIGHTED RATING	WEIGHT	OVERALL WEIGHTED PERF. RATING
PART I. PERFORMANCE GOALS	**4.65**	X .50 =	**2.325**
PART II. CORE COMPETENCIES	**4.85**	X .50 =	**2.425**
EPR COMBINED OVERALL WEIGHTED PERFORMANCE RATING (Add the overall weighted performance rating for Part I and Part II)		**100%**	**4.75**

PART IV. FINAL RATING

Based upon the employee's overall performance during the rating period as reflected in the **Overall Weighted Performance Rating**, check the one appropriate box.

X DISTINGUISHED: Consistently exceeds expectations (4.50 – 5.00)

☐ ACHIEVED EXPECTATIONS AND MORE: Meets expectations and frequently exceeds expectations (3.50 – 4.49)

☐ ACHIEVED EXPECTATIONS: Meets expectations (3.00 – 3.49)

☐ MORE IS EXPECTED: Occasionally meets expectations; performance needs much improvement (2.00 – 2.99)

☐ UNSATISFACTORY: Fails to meet expectations (below 2.00)

PART V. PERFORMANCE ACCOUNTABILITY CRITERIA/STRATEGIC BUSINESS PLAN (NEXT RATING PERIOD)

Employee and evaluator determine a minimum of three goals; if more than three goals, please use an attachment. The evaluator determines the weighting level. Total weighting levels for all PAC/SBPs must equal 100% (1.00 expressed as a decimal).

PAC/SBP 1: Delivery of Board Goals and Objectives SMART Goal: Implement a formal legislative tracking and reporting process for the 2027 session; provide written updates to the Board and affected stakeholders at defined milestones; and present necessary policy, form, or code recommendations within established deadlines.	**.40**
PAC/SBP 2: Delivery of Business Plan items other than Board Goals and Objectives SMART Goal: Complete the office relocation and document continuity procedures for Board meetings, appeals, certification, records, and municipal support. Complete the priority administrative policy and form review and present recommended revisions, consolidations, or repeals by September 30, 2027.	**.35**
PAC/SBP 3: Other/Special Focus (if any) SMART Goal: Finalize standardized private-provider guidance and inspection documentation consistent with Florida law, and document the annual BSIP list-development, municipal-verification, correction, and stakeholder-communication process, including owners, deadlines, and quality-control steps.	**.25**

PART VI. BROWARD COUNTY'S MISSION AND LEADERSHIP PHILOSOPHY AND SUPPORTING BEHAVIORS (NEXT RATING PERIOD)

The total weighting level for all competencies must equal 100% (1.00 expressed as a decimal).

CORE COMPETENCIES	WEIGHTING LEVEL
Leadership	**.20**
Communication	**.20**
Customer Focus	**.15**
Workforce Development	**.15**
Analytical/Strategic Thinking	**.15**
Results Focus	**.15**

PART VII. VALUE WEIGHTS (NEXT RATING PERIOD)

Value (weight) Part V and Part VI using a whole percentage number expressed as a decimal. The value (weight) must be at least 10% (0.10 expressed as a decimal), and no more than 90% (0.90 expressed as a decimal). Part V and Part VI values (weights) must equal 100% when added together.

		VALUE WEIGHTS
PART V.	PERFORMANCE ACCOUNTABILITY CRITERIA/STRATEGIC BUSINESS PLAN	.50
PART VI.	BROWARD COUNTY'S MISSION AND LEADERSHIP PHILOSOPHY AND SUPPORTING BEHAVIORS	.50
TOTAL VALUE WEIGHT		100%

PART VIII. SIGNATURES AND COMMENTS

EVALUATOR'S COMMENTS

Ana is a strategic, results-driven executive whose performance during this rating period was distinguished. She successfully managed a broad and unusually complex portfolio that included legislative implementation, municipal and industry guidance, appeals, Board and committee operations, policy modernization, program oversight, personnel matters, recruitment, compensation planning, and an office transition. She protected BORA's authority and neutrality while maintaining constructive relationships among stakeholders with competing views. Her judgment, communication, persistence, and ability to turn complicated issues into clear action have strengthened organizational accountability, responsiveness, and credibility.

EVALUATOR'S NAME (PRINT OR TYPE)	EVALUATOR'S SIGNATURE	DATE
_____		_____

I appreciate the Board's continued confidence and the opportunity to lead BORA. I am proud of the team's progress during a demanding year and remain committed to strengthening BORA's independence, accountability, technical credibility, and service to the Board, municipal building departments, and the public.

_____

Ana C. Barbosa	EMPLOYEE'S SIGNATURE	DATE
_____		_____