

# ***Analysis of Changes for the 8<sup>th</sup> Edition (2023) Florida Codes***

## ***Changes to the Florida Building Code, Test Protocols for the High-Velocity Hurricane Zones***

This *Analysis of Changes for the 8<sup>th</sup> Edition (2023) of the Florida Codes* is intended to provide a comprehensive comparison of the provisions in the *7<sup>th</sup> Edition (2020) Florida Building Code, Test Protocols for the High-Velocity Hurricane Zones (HVHZ)* and the *8<sup>th</sup> Edition (2023) Florida Building Code, Test Protocols for the HVHZ*. As a result of new Florida-specific amendments, certain provisions and criteria have changed. This *Analysis* will serve a useful tool to facilitate the transition to the new code.

This *Analysis* is arranged so that comparable provisions in the two codes can be easily located. The left two columns contain section numbers and a brief overview of the corresponding requirements from the *7<sup>th</sup> Edition (2020) Test Protocols for the HVHZ*. The next two columns contain section numbers and a brief overview of the corresponding requirements in the *8<sup>th</sup> Edition (2023) Test Protocols for the HVHZ*. The far right column contains a brief analysis or comment on the differences between the provisions.

This *Analysis* is not intended to replace or interpret the provisions contained in either the *7<sup>th</sup> Edition (2020)* or the *8<sup>th</sup> Edition (2023) Test Protocols for the HVHZ*. This information simply points out the differences. The *Analysis* is not designed to be used without the aid of the representative code books, as all the details pertaining to a specific section may or may not be provided. However, this *Analysis* will provide an easy means for identifying differences in the two codes, as well as enabling the user to locate issue specific provisions in the *8<sup>th</sup> Edition (2023) Test Protocols for the HVHZ* by means of a numbered section cross reference.

This *Analysis* provides a cross-reference for the majority of the sections that changed in the *8<sup>th</sup> Edition (2023) Test Protocols for the HVHZ*. In some cases, sections were grouped together due to substantial differences. This grouping enables the extent of the differences to be more readily identified.

Notable changes deemed to be the most significant or to have the greatest impact have been highlighted in **yellow**.

| 7 <sup>th</sup> Edition (2020) Test Protocols for the HVHZ  |   | 8 <sup>th</sup> Edition (2023) Test Protocols for the HVHZ |   | Analysis  |
|---|---|--|---|---|
| Section   | Requirement   | Section  | Requirement   |   |
| <b>RAS 111: Standard Requirements for Attachment of Perimeter Woodblocking and Metal Flashing</b> |   |  |   |   |
| 5.2.1   | Installation requirements (drip edge and gravel stop)               | 5.2.1  | Installation requirements (drip edge and gravel stop)               | Section revised to require the horizontal flange of a drip edge or gravel stop to extend back on the roof a minimum of 2 inches.  |
| <b>RAS 115: Standard Procedures for Asphalt Shingle Installation</b>                              |   |  |   |   |
| 3.3   | Fastener penetration  | 3.3  | Fastener penetration  | The minimum penetration of fasteners through the sheathing or wood planks has been changed from 3/16 inch to 1/8 inch.  |
| 4.1   | Underlayment  | 4.1  | Underlayment  | The permitted underlayment types have been deleted. New language requires underlayment to be in accordance with Chapter 15 (High-Velocity Hurricane Zone) of the FBCB.<br><br>Effectively, the use of ASTM D226 Type I underlayment has been deleted. When using ASTM D226 Type II underlayment, it will now be required to be a double layer system or a single layer installed over self-adhered tape applied over all joints in the roof deck. |
| 4.3   | Self-adhered underlayment   | -  | -   | The requirement that self-adhered underlayments be applied over a mechanically attached anchor/base sheet has been deleted.   |
| 6.2   | Allowable starter strips  | 6.2  | Allowable starter strips  | The option of using mineral surfaced roll roofing as a starter strip has been deleted.  |
| 6.3   | Starter strip installation for self-sealing non-laminated materials | 6.3  | Starter strip installation for self-sealing non-laminated materials | New language has been added to clarify that a starter shingle sealant strip is to be properly oriented downslope along the eave edge.   |
| 6.4   | Shingles without self-sealing strips                                | 6.4  | Shingles without self-sealing strips                                | The reference to shingles without self-sealing strips has been deleted. Redundant language about cutout alignment has been removed as it is already addressed in 6.3.   |

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| 6.5   | Roll roofing                       | 6.5        | Roll roofing                       | The use of roll roofing as a starter strip has been deleted.   |
| <b>RAS 118: Installation of Mechanically Fastened Roof Tile Systems</b>   |                                    |            |                                    |  |
| Table   | Underlayment systems               | Table 1    | Underlayment systems               | The reference to “nail-on” regarding single-ply underlayment has been deleted (Choice 3).  |
| <b>RAS 119: Installation of Mechanically Fastened Roof Tile Systems</b>   |                                    |            |                                    |  |
| Table   | Underlayment systems               | Table 1    | Underlayment systems               | The reference to “nail-on” regarding single-ply underlayment has been deleted (Choice 3).  |
| <b>RAS 120: Mortar and Adhesive Set Tile Application</b>  |                                    |            |                                    |  |
| Table   | Underlayment systems               | Table 1    | Underlayment systems               | The reference to underlayment systems with a mechanically fastened base sheet, and cap sheet set hot, cold, or self-adhered has been deleted.  |
| Drawing 10  | Eave Tile Detail EPDM Eave Closure | Drawing 10 | Eave Tile Detail EPDM Eave Closure | These figures have been swapped to correctly align the figure with the appropriate figure title.   |
| Drawing 11  | Eave Tile Detail Antiponding Metal | Drawing 11 | Eave Tile Detail Antiponding Metal |  |
| <b>RAS 127: Procedure for Determining the Moment of Resistance and Minimum Characteristic Resistance Load to Install a Tile System on a Building of a Specified Roof Slope and Height Using Allowable Stress Design (ASD) in Accordance with ASCE 7</b> |                                    |            |                                    |  |
| The entire standard, including tabulated design wind pressures and equations, has been updated for correlation with ASCE 7-22.  |                                    |            |                                    |  |
| <b>RAS 130: Installation Criteria for Roof Shingles and Shake Application</b>   |                                    |            |                                    |  |
| 4.1   | Underlayment (wood shingles)       | 4.1        | Underlayment (wood shingles)       | Section revised to no longer allow the use of ASTM D226 Type I underlayment. Underlayment complying with ASTM D4869 Types III or IV has been added as an underlayment option for wood shakes and shingles.<br><br>Underlayment application is now required to be a two-layer system. The language differs slightly from historical two-layer underlayment application to account for underlayment products that have widths that exceed 36 inches. |
| 4.3   | Valleys (wood shingles)            | 4.3        | Valleys (wood shingles)            | Section revised to permit the use of 36-inch-wide ASTM D1970 underlayment in valleys.  |

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| 4.10  | Hips and ridges (wood shingles)               | 4.10     | Hips and ridges (wood shingles)               | Section revised to permit the exposed juncture of the roof hip and ridge areas to be covered with a minimum 6-inch-wide strip of ASTM D8257 underlayment.  |
| 5.1   | Underlayment (wood shakes)                    | 5.1      | Underlayment (wood shakes)                    | Section revised to no longer allow the use of ASTM D226 Type I underlayment. Underlayment complying with ASTM D4869 Types III or IV has been added as an underlayment option for wood shakes and shingles.<br><br>Underlayment application is now required to be a two-layer system. The language differs slightly from historical two-layer underlayment application to account for underlayment products that have widths that exceed 36 inches. |
| 5.2   | Interlayment (wood shakes)                    | 5.2      | Interlayment (wood shakes)                    | Section revised to permit interlayment to be underlayment complying with ASTM D8257.   |
| 5.4   | Valleys (wood shakes)                         | 5.3      | Valleys (wood shingles)                       | Section revised to permit the use of 36-inch-wide ASTM D8257 underlayment in valleys.  |
| 5.10  | Hips and ridges (wood shakes)                 | 5.10     | Hips and ridges (wood shakes)                 | Section revised to permit the exposed juncture of the roof hip and ridge areas to be covered with a minimum 6-inch-wide strip of ASTM D8257 underlayment.  |
| <b>RAS 133: Standard Procedure for Installation of Metal Roof Systems</b>                             |   |          |   |  |
| 7.3.2   | Rake flashings                                | 7.3.2    | Rake flashings                                | The reference to terminating rake flashings at gravel stops has been deleted.  |
| <b>TAS 100: Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems</b> |   |          |   |  |
| 7.2   | Simulated rainfall and flow meter calibration | 7.2      | Simulated rainfall and flow meter calibration | Section revised to change the time frame for calibration of the flow meter from 3 months prior to conducting the test to every six months.   |
| Figure 1  | Wind Driven Rain Test Frame                   | Figure 1 | Wind Driven Rain Test Frame                   | Figure 1 has been replaced with a new figure that is properly proportioned, includes correct dimensions, and more accurately represents the test deck that is used   |
| 8.1.2   | Wood test deck                                | 8.1.2    | Wood test deck                                | New language clarifies that adjust to slope are only permitted to be made to the 10-foot slope of the test deck.   |

| <b>TAS 100(A): Test Procedure for Wind and Wind Driven Rain Resistance and/or Increased Windspeed Resistance of Soffit Ventilation Strip and Continuous or Intermittent Ventilation System Installed at the Ridge Area</b> |   |            |   |  |
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| 5.1.1  | Test frame                                    | 5.1.1      | Test frame                                    | Specific details about the test deck have been relocated from Section 5.1.1 to Section 8.  |
| -  | -   | 7.1.3      | Calibration                                   | A new section has been added requiring calibration of the wind stream velocity to be conducted every 6 months or whenever a change is made to any wind tunnel component.         |
| 7.2  | Simulated rainfall and flow meter calibration | 7.2        | Simulated rainfall and flow meter calibration | Section revised to change the time frame for calibration of the flow meter from 3 months prior to conducting the test to every six months.                                       |
| 7.3  | Water distribution check                      | 7.3        | Water distribution check                      | Section revised to change the time frame for checking and calibrating the water distribution over the test frame from 3 months prior to conducting the test to every six months. |
| 8.1.4  | Water collection (test specimen)              | 8.1.4      | Water collection (test specimen)              | Section revised to recognize other methods of collecting water are permitted as an alternate to a tray.  |
| 8.1.5  | Wood test deck slope                          | 8.1.5      | Wood test deck slope                          | Requirements related to adjustable or interchangeable decks has been relocated from Section 5.1.1 to Section 8.1.5.  |
| Figure 1A  | Wind Driven Rain Test Frame, Front View       | Figure 1A  | Wind Driven Rain Test Frame, Front View       | Figure 1A has been replaced with a new figure that is properly proportioned, includes correct dimensions, and more accurately represents the test deck that is used              |
| Figure 1 B   | Wind Driven Rain Test Frame, Side View        | Figure 1 B | Wind Driven Rain Test Frame, Side View        | Figure 1B has been replaced with a new figure that is properly proportioned, includes correct dimensions, and more accurately represents the test deck that is used              |
| <b>TAS 103: Test Procedure for Self-Adhered Underlayments for Use in Tile Roof Systems</b>   |   |            |   |  |
| 1.1  | Scope   | 1.1        | Scope   | The reference to the term “prefabricated” has been deleted.  |
| 2.5  | Application Standards – TAS 124               | -          | -   | The reference to TAS 124 has been deleted and shown as Reserved.   |
| 7.1  | Wind uplift                                   | 7.1        | Wind uplift                                   | The existing language in Section 7.1 has been deleted in its entirety.   |

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|  |  |          |  | New language has been added requiring adhered or mechanically attached tile underlayment or underlayment assemblies to be tested in accordance with FM 4474 or UL 1897.  |
| 10.1.2.2   | Conditioning                                     | 10.1.2.2 | Conditioning                                     | New language has been added permitting exposure to accelerated weathering of no less than 500 hours in accordance with ASTM D4798, Cycle A-1.  |
| 13.1   | Ultraviolet resistance                           | 13.1     | Ultraviolet resistance                           | Section revised to permit accelerated weathering in accordance with Section 24 for a minimum of 500 hours as an alternative to required UV exposure in this section.   |
| 23.3.2.1   | Conditioning of the control specimens            | 23.3.2.1 | Conditioning of the control specimens            | Section revised to clarify that the control specimens for tensile adhesion of tile adhesives must be conditioned for at least 4 hours. A +/- 5% tolerance has been added to the relative humidity requirement. |
| 23.3.2.2   | Conditioning of all other specimens              | 23.3.2.2 | Conditioning of all other specimens              | A +/- 5% tolerance has been added to the relative humidity requirement.  |
| 23.3.3   | Testing of samples in accordance with ASTM D1623 | 23.3.3   | Testing of samples in accordance with ASTM D1623 | A +/- 5% tolerance has been added to the relative humidity requirement.  |
| 24.2.2   | Accelerated weathering                           | 24.2.2   | Accelerated weathering                           | New language has been added requiring an assessment for visible changes including cracking of the surface layer or delamination between layers of underlayment.  |
| <b>TAS 104: Test Procedure for Nail-On Underlayment for Use in Tile Roof Systems</b> |  |          |  |  |
| 9.1.2.2  | Conditioning                                     | 9.1.2.2  | Conditioning                                     | New language has been added permitting exposure to accelerated weathering of no less than 500 hours in accordance with ASTM D4798, Cycle A-1.  |
| 12.1   | Ultraviolet resistance                           | 12.1     | Ultraviolet resistance                           | Section revised to permit accelerated weathering in accordance with Section 20 for a minimum of 500 hours as an alternative to required UV exposure in this section.   |
| 20.2.2   | Accelerated weathering                           | 20.2.2   | Accelerated weathering                           | New language has been added requiring an assessment for visible changes including  |

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|   |   |             |   | cracking of the surface layer or delamination between layers of underlayment.   |
| <b>TAS 110: Testing Requirements for Physical Properties of Roof Membranes, Insulation, Coatings and Other Roofing Components</b> |   |             |   |   |
| Table 2(A)  | Membrane or roll roofing products and test standards          | Table 2(A)  | Membrane or roll roofing products and test standards    | Synthetic roof underlayment complying with ASTM D8257 has been added to the table.  |
| Table 9   | Fiber cement discontinuous roof assembly testing requirements | Table 9     | Fiber cement roofing products testing requirements      | <p>Synthetic roof underlayment comply with ASTM D8257 has been added to the table.</p> <p>The footnote has been revised for clarity. A new pointer to TAS 103, Table 24.1 for the hours of accelerated weathering required to represent various extended exposure periods has been added. A visual assessment in addition to the currently required physical property tests is now required. The extended exposure requirements of TAS 110 have been harmonized with those of TAS 103 and TAS 104.</p>    |
| Table 10  | Non-rigid, discontinuous roof assembly testing requirements   | Table 10    | Discontinuous roof assembly testing requirements        | <p>Synthetic roof underlayment complying with ASTM D8257 has been added to the table.</p> <p>The footnote has been revised for clarity. A new pointer to TAS 103, Table 24.1 for the hours of accelerated weathering required to represent various extended exposure periods has been added. A visual assessment in addition to the currently required physical property tests is now required. The extended exposure requirements of TAS 110 have been harmonized with those of TAS 103 and TAS 104.</p> |
| Table 11(A)   | Rigid, discontinuous roof assembly testing requirements       | Table 11(A) | Rigid, discontinuous roof assembly testing requirements | <p>Synthetic roof underlayment complying with ASTM D8257 has been added to the table.</p> <p>Under attachment components, adhesive for use in adhesive set tile roof assemblies has been added with reference to Section 1523.6.5.2.17 of the FBCB.</p>   |

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|             |  |             |  | <p>The footnote has been revised for clarity. A new pointer to TAS 103, Table 24.1 for the hours of accelerated weathering required to represent various extended exposure periods has been added. A visual assessment in addition to the currently required physical property tests is now required. The extended exposure requirements of TAS 110 have been harmonized with those of TAS 103 and TAS 104.</p>   |
| Table 11(B) | Slate roof assembly testing requirements                 | Table 11(B) | Slate roof assembly testing requirements                 | <p>Synthetic roof underlayment complying with ASTM D8257 has been added to the table.</p> <p>The footnote has been revised for clarity. A new pointer to TAS 103, Table 24.1 for the hours of accelerated weathering required to represent various extended exposure periods has been added. A visual assessment in addition to the currently required physical property tests is now required. The extended exposure requirements of TAS 110 have been harmonized with those of TAS 103 and TAS 104.</p> |
| Table 14    | Attic ventilation products                               | Table 14    | Attic ventilation products                               | <p>The required test standard for large protruding ridge ventilation products (turbines, powered vents, etc.) has been changed from TAS 100(B) to TAS 202.</p>  |
| Table 15    | Nonstructural metal panel roof assemblies                | Table 15    | Nonstructural metal panel roof assemblies                | <p>The reference to FM 4474, Appendix G for standing seam metal roof panel systems installed to a minimum slope of 1:12 has been deleted.</p>   |
| Table 17    | Non-rigid tiles/shakes/slate/shingles products (plastic) | Table 17    | Non-rigid tiles/shakes/slate/shingles products (plastic) | <p>Synthetic roof underlayment comply with ASTM D8257 has been added to the table.</p> <p>The footnote has been revised for clarity. A new pointer to TAS 103, Table 24.1 for the hours of accelerated weathering required to</p>   |

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|   |  |         |   | represent various extended exposure periods has been added. A visual assessment in addition to the currently required physical property tests is now required. The extended exposure requirements of TAS 110 have been harmonized with those of TAS 103 and TAS 104.            |
| <b>TAS 124: Test Procedure for Field Uplift Resistance of Existing membrane Roof Systems and In Situ Testing for Reroof and New Construction Applications</b> |  |         |   |   |
| 4.3   | Roof replacement                       | 4.3     | Roof replacement  | Section revised to clarify that it applies to roof replacements and not new construction.   |
| 6.2.1   | Bell chamber tests                     | 6.2.1   | Bell chamber tests  | A new subsection has been added that clarifies the Bell chamber test is only appropriate for roofing systems tested in accordance with TAS 114 Appendix C or J. It is not appropriate for roofing systems testing in accordance with TAS 114 Appendix D.                        |
| 6.3.1   | Bonded pull test                       | 6.3.1   | Bonded pull test  | Section revised to clarify the limits of the bonded pull test. All other components of the roofing system must be adhered and or partially adhered as well as the roof covering. New language clarifies that this test is not appropriate for mechanically attached components. |
| 10.1.2  | Interpretation of results (deflection) | 10.1.2  | Interpretation of results (deflection)  | The deflection limit considered as failing has been changed from "greater than or equal to 1 inch" to "greater than 1 inch." New language refers to new Table 3 for deflection limitations.   |
| -   | -                                      | Table 3 | Maximum Recommended Deflection for Adhered Covers on Steel Deck Roofs Before the Sample is Considered Suspect | A new table has been added that specifies maximum deflection limitations based on the test pressure. The deflection limits are consistent with FM Global Property Loss Prevention Data Sheet 1-52.  |