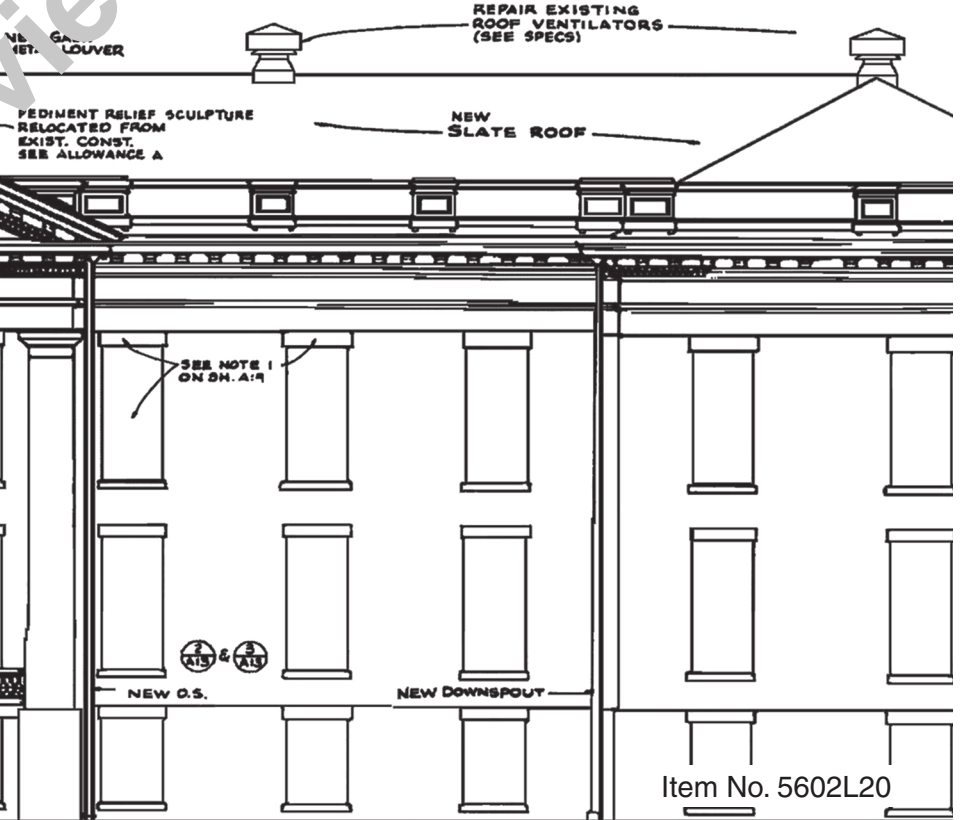


# FLORIDA BUILDING CODE

Seventh Edition  
(2020)

## *Test Protocols for High-Velocity Hurricane Zones*



Florida Test Protocols for High-Velocity Hurricane Zones, 7th Edition (2020)

First Printing: July 2020

ISBN: 978-1-952468-10-0

COPYRIGHT © 2020  
by  
INTERNATIONAL CODE COUNCIL, INC.

ALL RIGHTS RESERVED. This *Florida Test Protocols for High-Velocity Hurricane Zones, 7th Edition (2020)* is a copyrighted work owned by the International Code Council, Inc. Without advance written permission from the copyright owner, no part of this book may be reproduced, distributed or transmitted in any form or by any means, including, without limitation, electronic, optical or mechanical means (by way of example and not limitation, photocopying or recording by or in an information storage and retrieval system). For information on use rights and permissions, please contact: ICC Publications, 4051 Flossmoor Road, Country Club Hills, IL 60478. Phone 1-888-ICC-SAFE (422-7233).

Trade marks: International Code Council<sup>®</sup>, the International Code Council<sup>®</sup> logo, ICC<sup>®</sup>, and the ICC<sup>®</sup> logo are registered trademarks or trademarks of the International Code Council, Inc., and/or its licensors (as applicable).

# PREFACE

## History

The State of Florida first mandated statewide building codes during the 1970s at the beginning of the modern construction boom. The first law required all municipalities and counties to adopt and enforce one of the four state-recognized model codes known as the “state minimum building codes.” During the early 1990s a series of natural disasters, together with the increasing complexity of building construction regulation in vastly changed markets, led to a comprehensive review of the state building code system. The study revealed that building code adoption and enforcement was inconsistent throughout the state and those local codes thought to be the strongest proved inadequate when tested by major hurricane events. The consequences of the building code system failure were devastation to lives and economies and a statewide property insurance crisis. The response was a reform of the state building construction regulatory system that placed emphasis on uniformity and accountability.

The 1998 Florida Legislature amended chapter 553, *Florida Statutes*, Building Construction Standards, to create a single state building code that is enforced by local governments. As of March 1, 2002, the *Florida Building Code*, which is developed and maintained by the Florida Building Commission, supersedes all local building codes. The *Florida Building Code* is updated every three years and may be amended in the interim in accordance with criteria set out in section 553.73, Florida Statutes.

## Scope

The *Florida Building Code* is based on national model building codes and national consensus standards, in addition to Florida-specific provisions. The code incorporates all building construction-related regulations for public and private buildings in the State of Florida other than those specifically exempted by section 553.73, Florida Statutes. It has been harmonized with the *Florida Fire Prevention Code*, which is developed and maintained by the Department of Financial Services, Office of the State Fire Marshal, to establish unified and consistent standards.

The model codes used for the *Florida Building Code*, 7th Edition (2020) include: the 2018 editions of the *International Building Code*®; the *International Plumbing Code*®; the *International Mechanical Code*®; the *International Fuel Gas Code*®; the *International Residential Code*®; the *International Existing Building Code*®; the *International Energy Conservation Code*®; the *National Electrical Code*, 2017 edition; and substantive criteria from ASHRAE Standard 90.1-2016. State and local codes adopted and incorporated into the code include the *Florida Building Code, Accessibility*, and special hurricane protection standards for the High-Velocity Hurricane Zone.

The code is composed of nine main volumes: the *Florida Building Code, Building*, which also includes state regulations for licensed facilities; the *Florida Building Code, Plumbing*; the *Florida Building Code, Mechanical*; the *Florida Building Code, Fuel Gas*; the *Florida Building Code, Existing Building*; the *Florida Building Code, Residential*; the *Florida Building Code, Energy Conservation*; the *Florida Building Code, Accessibility* and the *Florida Building Code, Test Protocols for High-Velocity Hurricane Zones*. Chapter 27 of the *Florida Building Code, Building*, adopts the *National Electrical Code*, NFPA 70, by reference.

Under certain strictly defined conditions, local governments may amend technical requirements to be more stringent than the code. All local technical amendments to the *Florida Building Code* must be adopted in accordance with the requirements of section 553.73(4), Florida Statutes, and reported to the Florida Building Commission, then posted on [www.floridabuilding.org](http://www.floridabuilding.org) in legislative format for 30 days prior to being enforced. Local amendments to the *Florida Building Code* and the *Florida Fire Prevention Code* may be obtained from the Florida Building Commission website, or from the Florida Department of Business and Professional Regulation or the Florida Department of Financial Services, Office of the State Fire Marshal, respectively.

## Adoption and Maintenance

An updated edition of the *Florida Building Code* is adopted triennially by the Florida Building Commission. The code may also be amended between updates in order to incorporate the Florida Building Commission's interpretations into the code, address conflicts, and update standards, among other statutorily specified reasons. Minimum requirements for permitting, plans review and inspections are established by the code, and local jurisdictions may adopt additional administrative requirements that are more stringent. Local technical amendments are subject to strict criteria established by section 553.73(4), Florida Statutes. They are subject to Commission review during each triennial update of the code, and may be either adopted into the updated edition of the code or repealed. Local technical amendments are also subject to appeal according to the procedure established by section 553.73(4), Florida Statutes.

Eleven Technical Advisory Committees (TACs), which are constituted consistent with American National Standards Institute (ANSI) Guidelines, review proposed code changes and clarifications of the code and make recommendations to the Commission. These TACs whose membership is constituted consistent with American National Standards Institute (ANSI) Guidelines include Accessibility; Joint Building Fire (a joint committee of the Commission and the State Fire Marshall); Building Structural; Code Administration/ Enforcement; Electrical; Energy; Mechanical; Plumbing and Fuel Gas; Roofing; Swimming Pool; and Special Occupancy (state agency construction and facility licensing regulations).

The Commission may only issue official code interpretations using procedures set out by Chapter 120, Florida Statutes. To obtain such an interpretation, a request for a declaratory statement must be made to the Florida Building Commission in a manner that establishes a clear set of facts and circumstances and identifies the section of the code in question. Requests are analyzed by staff, reviewed by the appropriate Technical Advisory Committee, and sent to the Florida Building Commission for action. These interpretations establish precedents for situations having similar facts and circumstances and are typically incorporated into the code in the next code amendment cycle. Non-binding interpretations are available from the Building Officials Association of Florida's website ([www.BOAF.net](http://www.BOAF.net)) and a binding interpretation process is available online at [www.floridabuilding.org](http://www.floridabuilding.org).

## Marginal Markings

Solid vertical lines in the margins within the body of the code indicate a change from the requirements of the *Florida Test Protocols for High-Velocity Hurricane Zones*, 6th Edition (2017) to the *Florida Test Protocols for High-Velocity Hurricane Zones*, 7th Edition (2020), effective December 31, 2020.

Sections deleted from the base code are designated "Reserved."

## Acknowledgments

The *Florida Building Code* is produced through the efforts and contributions of building designers, contractors, product manufacturers, regulators and other interested parties who participate in the Florida Building Commission's consensus processes, Commission staff and the participants in the national model code development processes.

# TABLE OF CONTENTS

RAS No. 109	..... (RAS) 109.1	RAS No. 137	Standard Requirements for Mechanical Attachment of Single-ply Roof Coverings to Various Substrates ..... (RAS) 137.1
RAS No. 109-A	Detail Drawings ..... (RAS) 109-A.1	RAS No. 150	Prescriptive BUR Requirements ..... (RAS) 150.1
RAS No. 111-20	Standard Requirements for Attachment of Perimeter Woodblocking and Metal Flashing ..... (RAS) 111-20.1	TAS 100-95	Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems ..... (TAS) 100-95.1
RAS No. 113	Standard Requirements for Job Site Mixing of Roof Tile Mortar ..... (RAS) 113.1	TAS 100(A)-95	Test Procedure for Wind and Wind Driven Rain Resistance and/or Increased Wind Speed Resistance of a Continuous or Intermittent Ventilation System Installed at the Ridge Area. . . (TAS) 100(A)-95.1
RAS No. 115	Standard Procedures for Asphalt Shingle Installation ..... (RAS) 115.1	TAS 101-95	Test Procedure for Static Uplift Resistance of Mortar or Adhesive Set Tile Systems ..... (TAS) 101-95.1
RAS No. 117-20	Standard Requirements for Bonding or Mechanical Attachment of Insulation Panels and Mechanical Attachment of Anchor and/or Base Sheets to Substrates. .... (RAS) 117-20.1	TAS 102-95	Test Procedure for Static Uplift Resistance of Mechanically Attached, Rigid Roof Systems ..... (TAS) 102-95.1
RAS No. 118-20	Installation of Mechanically Fastened Roof Tile Systems: Direct Deck & Counter Battens Only ..... (RAS) 118-20.1	TAS 102(A)-95	Test Procedure for Static Uplift Resistance of Mechanically Attached, Clipped, Rigid, Roof Systems ..... (TAS) 102(A)-95.1
RAS No. 119-20	Installation of Mechanically Fastened Roof Tile Systems: Direct Deck & Horizontal Battens Only ..... (RAS) 119-20.1	TAS 103-20	Test Procedure for Self-adhered Underlayments for Use in Tile Roof Systems ..... (TAS) 103-20.1
RAS No. 120-20	Mortar and Adhesive Set Tile Application ..... (RAS) 120-20.1	TAS 104-20	Test Procedure for Nail-on Underlayment for Use in Tile Roof Systems ..... (TAS) 104-20.1
RAS No. 127-20	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 ..... (RAS) 127-20.1	TAS 105-20	Test Procedure for Field Withdrawal Resistance Testing. . . . (TAS) 105-20.1
RAS No. 128-20	Standard Procedure for Determining Applicable Wind Allowable Stress Design Pressures for Low Slope Roof in Accordance with ASCE 7 ..... (RAS) 128-20.1	TAS 106	Standard Procedure for Field Verification of the Bonding of Mortar or Adhesive Set Tile Systems and Mechanically Attached, Rigid, Discontinuous Roof Systems ..... (TAS) 106.1
RAS No. 130-20	Installation Criteria for Roof Shingles and Shakes Application ..... (RAS) 130-20.1	TAS 107-20	Test Procedure for Wind Resistance Testing of Non-rigid, Discontinuous Roof System Assemblies ..... (TAS) 107-20.1
RAS No. 133	Standard Procedure for Installation of Metal Roof Systems ..... (RAS) 133.1		

**TABLE OF CONTENTS**

TAS 108-95	Test Procedure for Wind Tunnel Testing of Air Permeable, Rigid, Discontinuous Roof Systems . . . (TAS) 108-95.1	TAS 125-03	Standard Requirements for Metal Roofing Systems . . . . . (TAS) 125-03.1
TAS 110-2000	Testing Requirements for Physical Properties of Roof Membranes, Insulation, Coatings and Other Roofing Components . . . . . (TAS) 110-00.1	TAS 126-95	Standard Procedures for Roof Moisture Surveys . . . . . (TAS) 126-95.1
TAS 111(A)-95	Test Procedure for Roof Edge Termination Performance . . . (TAS) 111(A)-95.1	TAS 131-20	Standard Requirements for Unreinforced Thermoplastic Olefin Elastomer Based Sheet Used in Single-ply Roof Systems . . . . . (TAS) 131-20.1
TAS 111(B)-95	Test Procedure for Edge Metal Pull-off Performance . . . . . (TAS) 111(B)-95.1	TAS 132-95	Standard Requirements for Testing and Approval of Sealants Used in Roofing . . . . . (TAS) 132-95.1
TAS 111(C)-95	Test Procedure for Coping Cap Pull-off Performance . . . . . (TAS) 111(C)-95.1	TAS 135-95	Standard Requirements for Fiberglass Reinforced Tile, Shingles or Panels and Fiber Cement Shingles, Shakes or Panels . . . . . (TAS) 135-95.1
TAS 112-95	Standard Requirements for Concrete Roof Tiles . . . . . (TAS) 112-95.1	TAS 138-95	Standard Requirements for Aluminum Pigmented Emulsified Asphalt Used as a Protective Coating for Roofing . . . . . (TAS) 138-95.1
TAS 114-11	Test Procedures for Roofing Assemblies in the High-velocity Hurricane Zone Jurisdiction . . . . . (TAS) 114-11.1	TAS 139-95	Standard Requirements for White Roof Patch Specification . . . (TAS) 139-95.1
TAS 116-95	Test Procedure for Air Permeability Testing of Rigid, Discontinuous Roof Systems . . . . . (TAS) 116-95.1	TAS 140-95	Standard Requirements for Nonfibered Roof and Foundation Coatings . . . . . (TAS) 140-95.1
TAS 117(A)-95	Test Procedure for Withdrawal Resistance Testing of Mechanical Fasteners Used in Roof System Assemblies . . . . . (TAS) 117(A)-95.1	TAS 141-95	Standard Requirements for Coal Tar (Cutback) Roof Coating, Brushing Consistency . . . . . (TAS) 141-95.1
TAS 117(B)-95	Test Procedure for Dynamic Pull-through Performance of Roofing Membranes over Fastener Heads or Fasteners with Metal Bearing Plates . . . . . (TAS) 117(B)-95.1	TAS 142-95	Standard Requirements for Coal Tar Roof Cement, Asbestos Free . . . . . (TAS) 142-95.1
TAS 117(C)-95	Test Procedure for Dynamic Pull-off Performance of Roofing Fastener Heads or Fasteners with Metal Bearing Plates . . . . . (TAS) 117(C)-95.1	TAS 143-95	Standard Requirements for White Elastomeric Roof Coatings Used for Coating Built Up Roofs and Metal Roofing Systems . . . . . (TAS) 143-95.1
TAS 121-95	Standard Requirements for Testing and Approval of Roofing Adhesives, Mastics and Coatings . . . . . (TAS) 121-95.1	TAS 201-94	Impact Test Procedures . . . . . (TAS) 201-94.1
TAS 123-95	Standard Requirements for Mortar Used in Mortar Set Tile Systems . . . . . (TAS) 123-95.1	TAS 202-94	Criteria for Testing Impact & Nonimpact Resistant Building Envelope Components Using Uniform Static Air Pressure . . . . . (TAS) 202-94.1
TAS 124-20	Test Procedure for Field Uplift Resistance of Existing Membrane Roof Systems and In Situ Testing for Reroof and New Construction Applications . . . . . (TAS) 124-20.1	TAS 203-94	Criteria for Testing Products Subject to Cyclic Wind Pressure Loading . . . . . (TAS) 203-94.1
		TAS 301-94	Testing Laboratory . . . (TAS) 301-94.1