SIGNIFICANT CHANGES TO THE

FLORIDA BUILDING CODE: BUILDING

7TH EDITION (2020)



PART

Administration

Chapters 1 and 2

 Chapter 1 Scope and Administration Inspections
Chapter 2 Definitions

The provisions of Chapter 1 address the applica-7 tion, enforcement and administration of subsequent requirements of the code. In addition to establishing the scope of the Florida Building Code (FBC), the chapter identifies which buildings and structures come under its purview. A building code, as with any other code, is intended to be adopted as a legally enforceable document to safeguard health, safety, property and public welfare. A building code cannot be effective without adequate provisions for its administration and enforcement. Chapter 2 provides definitions for terms used throughout the FBC. Codes, by their very nature, are technical documents, and as such, literally every word, term and punctuation mark can add to or change the meaning of the intended result.

110.3 Required Inspections

202 Definition of "Sleeping Unit"

CHANGE TYPE: Modification

CHANGE SUMMARY: In-progress inspections of exterior wall coverings and soffits are now required.

2020 CODE: 110.3 Required inspections. The building official upon notification from the permit holder or his or her agent shall make the following inspections, and shall either release that portion of the construction or shall notify the permit holder or his or her agent of any violations which must be corrected in order to comply with the technical codes. The building official shall determine the timing and sequencing of when inspections occur and what elements are inspected at each inspection.

Building

- (1-3 no change)
- 4. Exterior wall coverings. Shall at a minimum include the following building components in progress inspections:
 - Exterior wall coverings and veneers
 - <u>Soffit coverings</u>

(renumber remaining as 5-10)

CHANGE SIGNIFICANCE: While recent studies of hurricane damage in Florida indicate that buildings built to the FBC are performing significantly better than those built prior to the FBC, building envelope components (roof coverings, exterior wall coverings and soffit) remain particularly vulnerable. The failure of building envelope components can expose the interior of the building to significant water intrusion damage.

The vulnerability of soffits has been observed as far back as the 2004 hurricane season (Hurricanes Charley, Frances, Jeanne and Ivan). When soffits fail, wind-driven rain can enter the attic area of a building unimpeded, resulting in significant water intrusion damage. Many buildings with minimal damage suffered severe water intrusion damage due to failed soffits. At the time of the 2004 hurricanes, design wind loads on soffits were not addressed in the FBC nor ASCE 7. In response to the widespread damage to soffits, new criteria were added to the 2007 FBCB and FBCR requiring soffits to be designed for wind loads using the design pressures for walls adjusted for effective wind area (this requirement was subsequently added in ASCE 7-10). This also resulted in manufactured soffit panels being required to have Product Approval.

However, the failure of soffits due to wind loads continues to be prevalent in Florida. Field investigations following Hurricanes Irma and Michael in Florida indicated widespread failure of soffits throughout the impact area. The failure of vinyl soffit panels in Hurricanes Irma and Michael was particularly prevalent.

The failure of exterior wall coverings also contributes to water intrusion. Field investigations indicate that the failure of vinyl siding was widespread in Hurricanes Irma and Michael, but other types of siding, such as fiber-cement siding, were also vulnerable.

110.3 Required Inspections

While all exterior wall coverings and soffits are required to be designed or tested for the applicable design wind pressures, discussions with local building departments indicate that soffits and exterior wall coverings are rarely, if ever, inspected. The FEMA Hurricane Michael in Florida Mitigation Assessment Team (MAT) report observed many instances of failed soffit and exterior wall coverings. While the use of an inappropriate product for the applicable design pressure was noted in some cases, a significant number of failures observed were due to improper installation—inappropriate fasteners, lack of fasteners and inappropriate fastener location, among other issues. The FEMA Hurricane Michael in Florida MAT report contains the following conclusions and recommendations regarding soffits and exterior wall coverings:

Soffits

CONCLUSION FL-15: Improper installation of soffits led to inadequate resistance to wind pressures. Widespread loss of soffits was observed in residential construction, and wind-driven rain infiltrated many areas where soffits were displaced or lost.

Recommendation #FL-15b. FEMA and FDEM should consider submitting a code change proposal to the FBC requiring soffit inspections, and jurisdictions should prioritize performing soffit inspections. Soffit inspections will help to ensure compliant products are used and soffits are securely attached.



Failure of vinyl siding and soffit due to Hurricane Michael

Exterior Wall Coverings

CONCLUSION FL-17: There was evidence of widespread failure of exterior wall coverings throughout all areas assessed, particularly vinyl siding and fiber-cement. In addition to the poor performance of vinyl siding in many areas, numerous installation issues were observed for all types of wall coverings. Although the failure of fiber-cement siding was observed on many houses, the failure of vinyl siding on post-FBC residential buildings was widespread. Failures were observed in areas where wind speeds were at or below design levels.

Recommendation #FL-17a. FEMA and FDEM should consider submitting a code change proposal to the FBC requiring exterior wall covering inspections. Inspections will help ensure compliant installation and use of proper materials. Most MAT-observed wall covering failures demonstrated one or more examples of noncompliant installation, which can be mitigated through proper installation, or afterward through identification during field inspections. Common examples of wall cladding failures for vinyl siding include missing utility trim and missing starter strips. Existing guidance, resources and best practices for exterior wall coverings can be found in Hurricane Michael in Florida Recovery Advisory 2, *Best Practices for Minimizing Wind and Water Infiltration Damage* (in FEMA P-2077, 2019a), as well as Technical Fact Sheet 5.3, "Siding Installation in High Wind Regions" (in FEMA P-499, 2010g).

Due to these findings, the 7th Edition (2020) FBC now requires inprogress inspections of exterior wall coverings and soffit.



Failure of soffit due to Hurricane Michael

202 Definition of "Sleeping Unit"

CHANGE TYPE: Clarification

CHANGE SUMMARY: The revised definition of "sleeping unit" clarifies that each individual bedroom within a residential suite is not to be considered as a sleeping unit, but rather the entire suite is to be deemed as one sleeping unit.

2020 CODE: SLEEPING UNIT. A room or space in which people sleep, which can also include single unit providing rooms or spaces for one or more persons, which can also include permanent provisions for living, eating, <u>sleeping</u> and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a *dwelling unit* are not sleeping units.

CHANGE SIGNIFICANCE: The single required characteristic of a sleeping unit is that it is used as the primary location for sleeping purposes. Guestrooms of Group R-1 hotels and motels are typically considered sleeping units. Sleeping units are also commonly found in congregate living facilities, such as dormitories, sorority houses and fraternity houses, and are regulated as Group R-2 occupancies. Several of the varied Group I occupancies also contain resident or patient sleeping units. Of major importance, sleeping units are required by Section 420 to be separated from



Dormitory suites