Petition for Declaratory Statement

Date: 03/10/2026
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DS 2026-014

Statute(s), Agency Rules, Agency Order(s), and or Code Section(s) on which the Declaratory Statement is Sought

2023 Florida Building Code, Building Section 104.11
2023 Florida Building Code, Residential Sections 301.1.3, 301.2.1.1

Background

The Florida Building Code, Residential, 8th Edition (2023) (FBC-R) establishes clear and equivalent compliance pathways for design of residential building in Florida. Section R301.1 Application states that buildings constructed in accordance with the prescriptive requirements of the code are deemed to comply. In addition, Section R301.1.3 Engineered Design expressly permits compliance through accepted engineering practice:

R301.1.3 Engineered design

- *Where a building of otherwise conventional construction contains structural elements exceeding the limits of Section R301 or otherwise not conforming to this code, these elements shall be designed in accordance with accepted engineering practice. The extent of such design need only demonstrate compliance of nonconventional elements with other applicable provisions and shall be compatible with the performance of the conventional framed system. Engineered design in accordance with the Florida Building Code, Building is permitted for buildings and structures, and parts thereof, included in the scope of this code.*

Section R301.2.1.1 further reinforces that engineered design using ASCE 7 is an expressly approved, standard method on equal footing with prescriptive approaches:

R301.2.1.1 Wind design required

- *In regions where the ultimate design wind speed, V_ult, from Figure R301.2(4) equals or exceeds 115 miles per hour (51 m/s), the design of concrete, masonry, wood and steel buildings for wind loads shall be in accordance with one or more of the following methods:*
  1. *AWC Wood Frame Construction Manual (WFCM).*
  2. *Concrete and masonry walls are permitted to be designed in accordance with ICC Standard for Residential Construction in High-Wind Regions (ICC 600).*
  3. *ASCE Minimum Design Loads for Buildings and Other Structures (ASCE 7).*
  4. *AISI Standard for Cold-Formed Steel Framing—Prescriptive Method For One- and Two-Family Dwellings (AISI S230).*
  5. *Florida Building Code, Building; or*
  6. *The MAF Guide to Concrete Masonry Residential Construction in High Wind Areas shall be permitted for applicable concrete masonry buildings for a basic wind speed of 130 mph (58 m/s) or less in Exposure B and 110 mph (49 m/s) or less in Exposure C in accordance with Figure R301.2(4) as converted in accordance with R301.2.1.3.*

Facts and Circumstances / Supporting Analysis

This request seeks clarification for future design of buildings that are within the scope of the Florida Building Code, Residential (FBC-R). Jax Apex Technology, Inc. (Apex), is using ASCE 7 as referenced in Chapter FBC-R Chapter 46 (ASCE 7) to perform engineered design of a detached 2-story residential building constructed of wood over masonry construction. The roof and 2nd floor are wood framed, and the 1st floor exterior walls are 8" CMU.

Our design exceeds the design requirements of ASCE 7 loading while maintaining continuous load path throughout the structural assembly.

However, we are also finding that, in general, the results of our engineered design require less material than other deemed-to-comply standards or as compared to empirical text within FBC-R). As such, we feel it is imperative to understand the intent of Code when using engineered design.

As an example in our case, the table below highlights key differences in masonry exterior wall design when comparing engineered wind design and ICC600:

Application	Engineered Design	ICC 600
# of Filled Cells	38	41
# of vertical bars	38	51
Min Length of Shear Wall	16"	24"

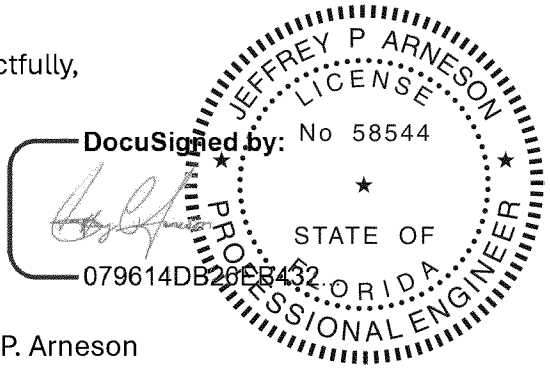
Outcome: Engineered design requires less conservative details and material use than deemed-to-comply referenced standards. Nonetheless, it meets or exceeds required load resistance per ASCE 7 and applicable FBC-R provisions, including continuous load paths per R301.2.2 and system compatibility per R301.1.3.

Questions:

1. FBC-R 301.2.1.1 Engineered Wind Design.

- Does Section R301.2.1.1 of the Florida building Code residential permit the use of ASCE 7 engineered design to determine wind load for the building?
- When engineering design in accordance with ASCE 7 is used for the buildings in question, must the design also comply with the deemed to comply standards (in this case WFCM and ICC600)?

Respectfully,



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Jeffrey P. Arneson