**Enclosures Under Elevated Buildings: Limiting the Size – local technical code amendments (FBC, R and FBC, B)**

**Description:** The NFIP regulations and the *Florida Building Code* (FBC) allow areas under elevated buildings to be enclosed with walls. Any enclosed area must be limited to use for parking of vehicles, storage, and building access. The NFIP regulations do not limit the size of enclosures and do not reference partitions. Walls of enclosed areas must meet specific requirements depending on the flood zone:

* In Zone A, walls are required to have flood openings; and

**New in 6th Ed. FBC.**

The 6th Edition FBC treats Coastal A Zone (CAZ) like Zone V if the FIRM has a LiMWA or the community designates the CAZ; flood openings are required in all walls, including breakaway walls.

* In Zone V and Coastal A Zones (CAZ), walls are required to break away under certain flood loads and must also have flood openings.

NFIP flood insurance coverage (structure and contents) is more expensive if buildings have enclosed areas and coverage of enclosures is limited. In Zone V, buildings with enclosures larger than 300 square feet in area are charged more than buildings with smaller enclosures.

**Related Higher Standards:** See instructions for these other higher standards related to enclosures:

* Prohibiting partitions or prohibiting enclosures
* Requiring Declaration of Land Restriction (Nonconversion Agreement) for enclosures under elevated buildings

**How the FBC, Residential addresses enclosures:** The FBC, Residential includes the basic, NFIP-consistent requirements for enclosed areas and walls below elevated dwellings. Requirements for all flood zones are in R322.1, requirements for Zone A are in R322.2, and requirements for Zone V are in R322.3. If the FIRM shows a Limit of Moderate Wave Action (LiMWA) or a community designates a Coastal A Zone (CAZ), the 6th Edition FBC, R treats Coastal A Zone like Zone V, with an exception permitting backfilled stemwalls if designed for wave loads and scour.

**How the FBC, Building addresses enclosures by reference to ASCE 24:** The FBC, Building, by reference to ASCE 24, includes the basic, NFIP-consistent requirements for enclosed areas and walls below elevated buildings. Requirements for enclosures under buildings in Zone A are in ASCE 24 Section 2.6 and requirements for Zone V and CAZ are in ASCE 24 Section 4.6.

**INSTRUCTIONS.**

***If your intent is to apply a limitation ONLY to dwellings, then where you see {select one: buildings / dwelling}, pick “dwellings” and then show only the code amendment(s) for the FBC, Residential.***

***Submit your draft ordinance (in <track changes>) to Technical Support*** [***flood.ordinance@em.myflorida.com***](mailto:flood.ordinance@em.myflorida.com) ***for review well in advance of your first reading.***

**Use this amendment to limit the size of enclosures under elevated buildings/dwellings.**

* *You may select the size limit. Because NFIP flood insurance is more expensive in Zone V when buildings have enclosures that are 300 sq. ft. or larger in size, many communities elect to use a size limit of 295 sq. ft. (or less) to decrease the likelihood of enclosures being slightly larger than the 300 sq. ft. trigger. NOTE that when surveyors complete Elevation Certificates the measurement of the area of enclosures/garages is taken on the outside, which suggests a minimum size of 295 sq. ft. would be even more helpful to avoid having enclosures that inadvertently end up larger than 300 sq. ft.*
* *In Zone A, this amendment also limits the size of crawlspaces, except crawlspaces that are less than a certain height (you may select the height; 4 ft. seems reasonable). Applying it only to crawlspaces of a certain height is intended to dissuade future owners from excavating “taller” crawlspaces to add usable area, which would create basements that are not permitted.*
* *In Zone V and CAZ, this additional language limits the size of all enclosures – even enclosures surrounded by insect screening or open lattice because they could be modified in the future to have solid walls.*
* *To apply in only Zone V and CAZ, the Whereas clause should be modified to replace “flood hazard areas” with “coastal high hazard areas and Coastal A Zone” and then use only the text for modifying R322.3.5 shown below. Check with Technical Support for guidance on modifying the amendment to 1612.4.2.*

***Step 1.***  *See the General Instructions to select the appropriate Whereas clause(s). Insert the following brief description of the higher standard:*

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| limit the size of enclosures below elevated **{select one: buildings / dwellings}** |

***Step 2.*****Limit the size of enclosures under elevated dwellings.**

*Add a new SECTION 3 to the ordinance package to adopt local technical amendments to the FBC, Residential as follows (based on 6th Edition). Maintain strikethrough and underlining to denote changes to the FBC.*

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| **SECTION 3. {Insert citation for current chapter Buildings; insert appropriate section number) is hereby amended by the following technical amendments to the *Florida Building Code, Residential.***  **R322.2.2 Enclosed area below design flood elevation.** Enclosed areas, including crawl spaces, that are below the design flood elevation shall:  1. Be used solely for parking of vehicles, building access or storage.  2. Be provided with flood openings that meet the following criteria and are installed in accordance with Section R322.2.2.1:  2.1. The total net area of non-engineered openings shall be not less than 1 square inch (645 mm2) for each square foot (0.093 m2) of enclosed area where the enclosed area is measured on the exterior of the enclosure walls, or the openings shall be designed as engineered openings and the construction documents shall include a statement by a registered design professional that the design of the openings will provide for equalization of hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwaters as specified in Section 2.7.2.2 of ASCE 24.  2.2. Openings shall be not less than 3 inches (76 mm) in any direction in the plane of the wall.  2.3 The presence of louvers, blades, screens and faceplates or other covers and devices shall allow the automatic flow of floodwater into and out of the enclosed areas and shall be accounted for in the determination of the net open area.  3. Be not more than **{insert number}** square feet in area, except for crawlspace foundations that have a wall height less than **{insert number}** feet. |

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| **R322.3.5 Enclosed areas below design flood elevation.** Enclosed areas below the design flood elevation shall be not more than **{insert number}** square feet in area and shall be used solely for parking of vehicles, building access or storage.  *Alternative: If you want to allow areas with insect screening or lattice to be larger:*  **R322.3.5 Enclosed areas below design flood elevation.** Enclosed areas below the design flood elevation ~~shall be~~:   1. Shall, except if enclosed by insect screening or open lattice, be not more than **{insert number}** square feet in area; and 2. Shall be used solely for parking of vehicles, building access or storage. |

***Step 3.*** **Limit the size of enclosures under elevated buildings.**

*Add a new SECTION 4 to the ordinance package to adopt local technical amendments to the FBC, Building as follows. Maintain strikethrough and underlining to denote changes to the FBC.*

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| **SECTION 4. {Insert citation for current chapter Buildings; insert appropriate section number) is hereby amended by the following technical amendments to the *Florida Building Code, Building.***  **1612.4.2 Additional requirements for enclosed areas.**  In addition to the requirements of ASCE 24, enclosed areas below the design flood elevation shall be not more than **{insert size limit}** square feet in area. |