[Draft] Needed 2016 Code Fixes to the 5th Edition (2014) Florida Building Code as per HB 535 and SB 1602

HB 535- Sections 10

- 514.011 Definitions.—As used in this chapter:
- (6) "Temporary pool" means a pool intended to be used in conjunction with a sanctioned national or international swimming or diving competition event that does not exceed 30 consecutive days of use.

Section 11. Subsection (5) of section 514.0115, Florida Statutes, is renumbered as subsection (7), and new subsections (5) and (6) are added to that section to read:

- (5) A portable pool used exclusively for providing swimming lessons or related instruction in support of an established educational program sponsored or provided by a school district may not be regulated as a public pool.
- (6) A temporary pool may not be regulated as a public pool.

[To be reviewed by the Swimming Pool TAC]

5th Edition (2014) Florida Building Code, Building

Section 454 Swimming Pools and Bathing Places (Public and Private)

454.1 Public swimming pools and bathing places. Change Section 454.1 to add the following definition:

"Temporary pool" means a pool intended to be used in conjunction with a sanctioned national or international swimming or diving competition event that does not exceed 30 consecutive days of use.

Section 454.1 Public swimming pools and bathing places. Change Section 454.1 to add exception 1 and 2 as shown:

454.1 Public swimming pools and bathing places. Public swimming pools and bathing places shall comply with the design and construction standards of this section.

Exceptions:

- 1. A portable pool used exclusively for providing swimming lessons or related instruction in support of an established educational program sponsored or provided by a school district may not be regulated as a public pool.
- 2. A temporary pool may not be regulated as a public pool.

Subsection (1) of section 515.27, Florida Statutes, is amended to read:

- (d) All doors providing direct access from the home to the pool must be equipped with a self-closing, self-latching device with a release mechanism placed no lower than 54 inches above the floor; or
- (e) A swimming pool alarm that, when placed in a pool, sounds an alarm upon detection of an accidental or unauthorized entrance into the water. Such pool alarm must meet and be independently certified to ASTM Standard F2208, titled "Standard Safety Specification for Residential Pool Alarms," which includes surface motion, pressure, sonar, laser, and infrared alarms. For purposes of this paragraph, the term "swimming pool alarm" does not include any swimming protection alarm device designed for individual use, such as an alarm attached to a child that sounds when the child exceeds a certain distance or becomes submerged in water.

[To be reviewed by the Swimming Pool TAC]

5th Edition (2014) Florida Building Code, Building

454.2 Private swimming Pools

454.2.17 Residential swimming barrier requirement. Revise Section 454.2.17 to add exception 2 as follows:

454.2.17 Residential swimming barrier requirement. Residential swimming pools shall comply with Sections 454.2.17.1 through 454.2.17.3.

Exceptions:

- 1. A swimming pool with an approved safety pool cover complying with ASTM F 1346.
- 2. A swimming pool alarm that, when placed in a pool, sounds an alarm upon detection of an accidental or unauthorized entrance into the water. Such pool alarm must meet and be independently certified to ASTM Standard F2208, titled "Standard Safety Specification for Residential Pool Alarms," which includes surface motion, pressure, sonar, laser, and infrared alarms. For purposes of this paragraph, the term "swimming pool alarm" does not include any swimming protection alarm device designed for individual use, such as an alarm attached to a child that sounds when the child exceeds a certain distance or becomes submerged in water.

5th Edition (2014) Florida Building Code, Residential

Chapter 45 Private Swimming Pools

4501.17 Residential swimming barrier requirement. Revise Section 4501.17 to add exception 2 as follows:

R4501.17 Residential swimming barrier requirement. Residential swimming pools shall comply with Sections R4501.17.1 through R4501.17.3.

Exceptions:

- **1.** A swimming pool with an approved safety pool cover complying with ASTM F 1346.
- 2. A swimming pool alarm that, when placed in a pool, sounds an alarm upon detection of an accidental or unauthorized entrance into the water. Such pool alarm must meet and be independently certified to ASTM Standard F2208, titled "Standard Safety Specification for Residential Pool Alarms," which includes surface motion, pressure, sonar, laser, and infrared alarms. For purposes of this paragraph, the term "swimming pool alarm" does not include any swimming protection alarm device designed for individual use, such as an alarm attached to a child that sounds when the child exceeds a certain distance or becomes submerged in water.

HB 535 - Section 17

(15) An agency or local government may not require that existing mechanical equipment located on or above the surface of a roof be installed in compliance with the requirements of the Florida Building Code except <u>during reroofing</u> when the equipment is being replaced or moved <u>during reroofing</u> and is not in compliance with the provisions of the Florida Building Code relating to roof-mounted mechanical units.

[To be reviewed by the Code Admin TAC]

5th Edition (2014) Florida Building Code, Building

Chapter 1 Scope and Administration

102.8 Existing mechanical equipment. Revise Section 102.8 to read as follows:

102.8 Existing mechanical equipment. An agency or local government may not require that existing mechanical equipment located on or above the surface of a roof be installed in compliance with the requirements of the *Florida Building Code* except <u>during reroofing</u> when the equipment is being replaced or moved during reroofing and is not in compliance with the provisions of the *Florida Building Code* relating to roof-mounted mechanical units.

5th Edition (2014) Florida Building Code, Existing Building

Chapter 1 Scope and Administration

101.8 Existing mechanical equipment. Revise Section 102.8 to read as follows:

101.8 Existing mechanical equipment. An agency or local government may not require that existing mechanical equipment located on or above the surface of a roof be installed in compliance with the requirements of the *Florida Building Code* except <u>during reroofing</u> when the equipment is being replaced or moved <u>during reroofing</u> and is not in compliance with the provisions of the *Florida Building Code* relating to roof-mounted mechanical units.

HB 535 - Section 17

(19) The Florida Building Code shall require two fire service access elevators in all buildings with a height greater than 120 feet measured from the elevation of street-level access to the level of the highest occupiable floor. All remaining elevators, if any, shall be provided with Phase I and II emergency operations. Where a fire service access elevator is required, a 1-hour fire-rated fire service access elevator lobby with direct access from the fire service access elevator is not required if the fire service access elevator opens into an exit access corridor that is no less than 6 feet wide for its entire length and is at least 150 square feet with the exception of door openings, and has a minimum 1-hour fire rating with threequarter hour fire and smoke rated openings; and during a fire event the fire service access elevator is pressurized and floor- to-floor smoke control is provided. However, where transient residential occupancies occur at floor levels more than 420 feet above the level of fire service access, a 1-hour fire-rated service access elevator lobby with direct access from the fire service access elevator is required. Standpipes in high-rise buildings of Florida Building Code—Building Occupancy Group R1 or R2 must be located in stairwells and are subject only to the requirements of the Florida Fire Prevention Code and NFPA 14, Standard for the Installation of Standpipes and Hose Systems, adopted by the State Fire Marshal.

[To be reviewed by the Fire TAC/Special Occupancy TAC]

5th Edition (2014) Florida Building Code, Building

Chapter 4 Special Detailed Requirements Based on Use and Occupancy

Section 403 High-Rise Buildings

403.6.1 Fire service access elevator. Revise Section 403.6.1 to read as follows:

403.6.1 Fire service access elevator. In buildings with an occupied floor more than 120 feet (36 576 mm) measured from the elevation of street-level access to the level of the highest occupiable floor. above the lowest level of fire department vehicle access, no fewer than two fire service access elevators, or all elevators, whichever is less, shall be provided in accordance with Section 3007. All remaining elevators, if any, shall be provided with Phase 1 and II emergency operation. Each fire service access elevator shall have a capacity of not less than 3500 pounds (1588 kg).

Chapter 30 Elevators and Conveying Systems

Section 3007 Fire Service Access Elevator

3007.7 Fire service access elevator lobby. Revise Section 3007.7

3007.7 Fire service access elevator lobby. The fire service access elevator shall open into a fire service access elevator lobby in accordance with Sections 3007.7.1 through 3007.7.5. **Exceptions:**

- 1. Where a fire service access elevator has two entrances onto a floor, the second entrance shall be permitted to open into an elevator lobby in accordance with Section 713.14.1.
- 2. Where a fire service access elevator is required, a 1-hour fire-rated fire service access elevator lobby with direct access from the fire service access elevator is not required if the fire service access elevator opens into an exit access corridor that is no less than 6 feet wide for its entire length and is at least 150 square feet with the exception of door openings, and has a minimum 1-hour fire rating with three- quarter hour fire and smoke rated openings; and during a fire event the fire service access elevator is pressurized and floor- to-floor smoke control is provided.

Exception: Where transient residential occupancies occur at floor levels more than 420

feet above the level of fire service access, a 1-hour fire-rated service access elevator lobby with direct access from the fire service access elevator is

required.

No change to the remaining text.

3007.10.1 Access. Revise Section 3007.10.1 to read as follows:

3007.10.1 Access. The *exit* enclosure containing the standpipe shall have access to the floor without passing through the fire service access elevator lobby.

Exception: Standpipes in high-rise buildings of Group R1 or R2 must be located in stairwells and are subject only to the requirements of the Florida Fire Prevention Code and NFPA 14, Standard for the Installation of Standpipes and Hose Systems, adopted by the State Fire Marshal.

553.79 Permits; applications; issuance; inspections.-

6) A permit may not be issued for any building...

After submittal of the appropriate construction documents, the building official may issue a permit for the construction of foundations or any other part of a building or structure before the construction documents for the entire building or structure have been submitted. The holder of such permit for the foundation or other parts of a building or structure shall proceed at the holder's own risk and without assurance that a permit for the entire structure will be granted. Corrections may be required to meet the requirements of the technical codes.

[To be reviewed by the Code Admin TAC]

5th Edition (2014) Florida Building Code, Building (Already in the FBC)

Chapter 1 Scope and Administration

105.13 Phased permit approval. After submittal of the appropriate construction documents, the *building official* is authorized to issue a *permit* for the construction of foundations or any other part of a building or structure before the construction documents for the whole building or structure have been submitted. The holder of such *permit* for the foundation or other parts of a building or structure shall proceed at the holder's own risk with the building operation and without assurance that a permit for the entire structure will be granted. Corrections may be required to meet the requirements of the technical codes.

HB 535 - Section 23

553.844 Florida Statutes

(c) Any activity requiring a building permit, not including roof covering replacement or repair work associated with the prevention of degradation of the residence, that is applied for on or after July 1, 2008, and for which the estimated cost is \$50,000 or more, must include provision of opening protections as required within the Florida Building Code for new construction for a building that is located in the wind-borne debris region as defined in s. 1609.2 of the International Building Code (2006) and that has an insured value of \$750,000 or more, or, if the building is uninsured or for which documentation of insured value is not presented, has a just valuation for the structure for purposes of ad valorem taxation of \$750,000 or more.

[To be reviewed by the Code Admin TAC]

5th Edition (2014) Florida Building Code, Building

Chapter 1 Scope and Administration

105.15 Opening protection. Revise Section 105.15 to read as follows:

105.15 Opening protection. When any activity requiring a building *permit*, not including roof covering replacement or repair work associated with the prevention of degradation of the residence, that is applied for on or after July 1, 2008, and for which the estimated cost is \$50,000 or more for a site built single-family detached residential structure that is located in the wind borne debris region as defined in this code and that has an insured value of \$750,000 or more, or, if the site built single-family detached residential structure is uninsured or for which documentation of insured value is not presented, has a just valuation for the structure for purposes of ad valorem taxation of \$750,000 or more; opening protections as required within this code or *Florida Building Code*, *Residential* for new construction shall be provided.

Exception: Single-family residential structures permitted subject to the *Florida Building Code* are not required to comply with this section.

HB 535 - Section 23

(4) Notwithstanding the provisions of this section, exposed mechanical equipment or appliances fastened to a roof or installed on the ground in compliance with the code using rated stands, platforms, curbs, slabs, <u>walls</u>, or other means are deemed to comply with the wind resistance requirements of the 2007 Florida Building Code, as amended. Further support or enclosure of such mechanical equipment or appliances is not required by a state or local official having authority to enforce the Florida Building Code. This subsection expires on the effective date of the Florida Building Code.

[To be reviewed by the Structural TAC/Mechanical TAC/Special Occupancy TAC]

5th Edition (2014) Florida Building Code, Mechanical

Chapter 3 General Regulation

301.15 Wind resistance. Revise Section 301.15 to read as follows:

301.15 Wind resistance. Mechanical *equipment*, appliances and supports that are exposed to wind shall be designed and installed to resist the wind pressures determined in accordance with the *Florida Building Code*, *Building*.

Exception:

Exposed mechanical equipment or appliances fastened to a roof or installed on the ground in compliance with the code using rated stands, platforms, curbs, slabs, walls, or other means are deemed to comply with the wind resistance requirements of the 2007 Florida Building Code, as amended. Further support or enclosure of such mechanical equipment or appliances is not required by a state or local official having authority to enforce the Florida Building Code.

5th Edition (2014) Florida Building Code, Fuel Gas

Chapter 3 General Regulation

301.10 Wind resistance. Revise Section 301.10 to read as follows:

301.10 Wind resistance. Appliances and supports that are exposed to wind shall be designed and installed to resist the wind pressures determined in accordance with the *Florida Building Code, Building.*

Exception:

Exposed mechanical equipment or appliances fastened to a roof or installed on the ground in compliance with the code using rated stands, platforms, curbs, slabs, walls, or other means are deemed to comply with the wind resistance requirements of the 2007 Florida Building Code, as amended. Further support or enclosure of such mechanical equipment or appliances is not required by a state or local official having authority to enforce the Florida Building Code.

5th Edition (2014) Florida Building Code, Building

CHAPTER 4 Special Detailed Requirements Based on Use and Occupancy SECTION 453 STATE REQUIREMENTS FOR EDUCATIONAL FACILITIES

453.25.4.5.1 HVAC equipment. Revise Section 453.25.4.5.1 to read as follows:

453.25.4.5.1 HVAC equipment mounted on roofs and anchoring systems shall be designed and installed to meet the wind load criteria.

Exception:

Exposed mechanical equipment or appliances fastened to a roof or installed on the ground in compliance with the code using rated stands, platforms, curbs, slabs, walls, or other means are deemed to comply with the wind resistance requirements of the 2007 Florida Building Code, as amended. Further support or enclosure of such mechanical equipment or appliances is not required by a state or local official having authority to enforce the Florida Building Code.

Revise Section 1609.1.1 to read as follows:

1609.1.1 Determination of wind loads. Wind loads on every building or structure shall be determined in accordance with Chapters 26 to 30 of ASCE 7 or provisions of the alternate all-heights method in Section 1609.6. Wind shall be assumed to come from any horizontal direction and wind pressures shall be assumed to act normal to the surface considered.

Exceptions:

1 - 7 No change

8. Exposed mechanical equipment or appliances fastened to a roof or installed on the ground in compliance with the code using rated stands, platforms, curbs, slabs, walls, or other means are deemed to comply with the wind resistance requirements of the 2007 Florida Building Code, as amended. Further support or enclosure of such mechanical equipment or appliances is not required by a state or local official having authority to enforce the Florida Building Code.

1620 - HIGH-VELOCITY HURRICANE ZONES—WIND LOADS

1620.1. Revise to read as follows:

1620.1 Buildings and structures, and every portion thereof, shall be designed and constructed to meet the requirements of Chapters 26 through 31 of ASCE 7.

Exception: Exposed mechanical equipment or appliances fastened to a roof or installed on the ground in compliance with the code using rated stands, platforms, curbs, slabs, walls, or other means are deemed to comply with the wind resistance requirements of the 2007 Florida Building Code, as amended. Further support or enclosure of such mechanical equipment or appliances is not required by a state or local official having authority to enforce the Florida Building Code.

1620.6 Rooftop structures and equipments.— Reserved

The lateral force on rooftop structures and equipment with A_f less than (0.1Bh) located on buildings of all heights shall be determined from Equation 29.5-1 of ASCE 7 in which the value of GC_f shall be taken as 3.1. GC_f shall be permitted to be reduced linearly from 3.1 to 1.1 as the value of A_f is increased from (0.1Bh) to (Bh). The value of G from Section 26.9 of ASCE 7 shall not be used. Additionally, a simultaneous uplift force shall be applied, given by Equation 29.5-1 of ASCE 7 in which $GC_f = 1.5$ and A_f is replaced by the horizontal projected area, A_f , of the rooftop structure or equipment. For the uplift force GC_f shall be permitted to be reduced linearly from 1.5 to 1.0 as the value of A_f is increased from (0.1BL) to (BL).

553.883 Smoke alarms in one-family and two-family dwellings and townhomes.—One-family and two-family dwellings and townhomes undergoing a repair, or a level 1 alteration as defined in the Florida Building Code, may use smoke alarms powered by 10-year nonremovable, nonreplaceable batteries in lieu of retrofitting such dwelling with smoke alarms powered by the dwelling's electrical system. Effective January 1, 2015, A battery-powered smoke alarm that is newly installed or replaces an existing battery-powered smoke alarm as a result of a level 1 alteration must be powered by a nonremovable, nonreplaceable battery that powers the alarm for at least 10 years. The battery requirements of this section do not apply to a fire alarm, smoke detector, smoke alarm, or ancillary component that is electronically connected as a part of a centrally monitored or supervised alarm system; that uses a low-power, radio frequency wireless communication signal; or that contains multiple sensors, such as a smoke alarm combined with a carbon monoxide alarm or other multi-sensor devices, and is approved and listed by a nationally recognized testing laboratory.

[To be reviewed by the Fire TAC]

5th Edition (2014) Florida Building Code, Existing Building

CHAPTER 4 Prescriptive Compliance

403.7 Smoke alarms in one-family and two-family dwellings and townhomes. Revise Section 403.7 to read as follows:

403.7 Smoke alarms in one-family and two-family dwellings and townhomes. One-family and two-family dwellings and townhomes undergoing a repair, or a Level 1 alteration as defined in the *Florida Building Code*, may use smoke alarms powered by 10-year nonremovable, nonreplaceable batteries in lieu of retrofitting such dwelling with smoke alarms powered by the dwelling's electrical system. Effective January 1, 2015, A battery-powered smoke alarm that is newly installed or replaces an existing battery-powered smoke alarm as a result of a level lalteration must be powered by a nonremovable, nonreplaceable battery that powers the alarm for at least 10 years. The battery requirements of this section do not apply to a fire alarm, smoke detector, smoke alarm, or ancillary component that is electronically connected as a part of a centrally monitored or supervised alarm system, that uses a low-power, radio frequency wireless communication signal; or that contains multiple sensors, such as a smoke alarm combined with a carbon monoxide alarm or other multi-sensor devices, and is approved and listed by a nationally recognized testing laboratory.

CHAPTER 7 Alterations – Level 1

SECTION 703 FIRE PROTECTION

703.2 Smoke alarms in one-family and two-family dwellings and townhomes. Revise Section 703.2 to read as follows:

703.2 Smoke alarms in one-family and two-family dwellings and townhomes. One-family and two-family dwellings and townhomes undergoing a repair, or a Level 1 alteration as defined in the *Florida Building Code*, may use smoke alarms powered by 10-year nonremovable, nonreplaceable batteries in lieu of retrofitting such dwelling with smoke alarms powered by the dwelling's electrical system. Effective January 1, 2015, A battery-powered smoke alarm that is newly installed or replaces an existing battery-powered smoke alarm as a result of a level lalteration must be powered by a nonremovable, nonreplaceable battery that powers the alarm for at least 10 years. The battery requirements of this section do not apply to a fire alarm, smoke detector, smoke alarm, or ancillary component that is electronically connected as a part of a centrally monitored or supervised alarm system, that uses a low-power, radio frequency wireless communication signal; or that contains multiple sensors, such as a smoke alarm combined with a carbon monoxide alarm or other multi-sensor devices, and is approved and listed by a nationally recognized testing laboratory.

HB 535 - Section 25

553.908 Inspection.—Before construction or renovation is completed, the local enforcement agency shall inspect buildings for compliance with the standards of this part. Notwithstanding any other provision of the code or law, effective July 1, 2016, section R402.4.1.2 of the Florida Building Code, 5th Edition (2014) Energy Conservation, which became effective on June 30, 2015, shall increase the building's or dwelling unit's maximum tested air leakage measure from "not exceeding 5 air changes per hour" to "not exceeding 7 air changes per hour" in Climate Zones 1 and 2. The mandatory blower door testing for residential buildings or dwelling units as contained in section R402.4.1.2 of the Florida Building Code, 5th Edition (2014) Energy Conservation, shall not take effect until July 1, 2017, and shall not apply to construction permitted before July 1, 2017. Additionally, section M401.2 of the Florida Building Code, 5th Edition (2014) Mechanical, and section R303.4 of the Florida Building Code, 5th Edition (2014) Residential, which became effective on June 30, 2015, shall not require mandatory mechanical ventilation unless the air infiltration rate in a dwelling is less than 3 air changes per hour when tested with a blower door at a pressure of 0.2-inch water column (50 Pascals) in accordance with section R402.4.1.2 of the Florida Building Code, 5th Edition (2014) Energy Conservation.

[To be reviewed by the Energy TAC/Mechanical TAC]

5th Edition (2014) Florida Building Code, Energy Conservation

Chapter 1 [RE] Scope and Administration

R101.5 Applicability. Add a new section R 101.4.9 to read as follows:

R101.4.9 Blower door testing. The mandatory blower door testing for residential buildings or dwelling units as contained in section R402.4.1.2 of the Florida Building Code, 5th Edition (2014) Energy Conservation, shall not take effect until July 1, 2017, and shall not apply to construction permitted before July 1, 2017.

Chapter 4 [RE] Residential Energy Efficiency

R402.4.1.2 Testing. Revise Section R402.4.1.2 to read as follows:

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 7 air changes per hour in Climate Zones 1 and 2, and 3 air changes per hour in Climate Zones 3 through 8. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Where required by the *code official*, testing shall be conducted by an *approved* third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope*. During testing:

No change to the remaining text

Table R405.5.2(1) Specification For The Standard Reference And Proposed Designs. Revise Table R4-5.5.2(1) to read as follows:

Air exchange rate	Air leakage rate of $\frac{5}{7}$ air changes per hour in climate zones 1 and 2, and 3 air changes per hour inclimate zones 3 through 8 at a pressure of 0.2 inches w.g. (50 Pa). The mechanical ventilation rate shall be in addition to the air leakage rate and the same as in the proposed design, but no greater than 0.01 x $CFA + 7.5$ x $(Nbr + 1)$ where: $CFA =$ conditioned floor area $Nbr =$ number of bedrooms Energy recovery shall not be assumed for mechanical ventilation.	For residences that are not tested, the same air leakage rate as the standard reference design. For tested residences, the measured air exchange rate ^a . The mechanical ventilation rate ^b shall be in addition to the air leakage rate and shall be as proposed.
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No change to the remaining text

5th Edition (2014) Florida Building Code, Mechanical

Chapter 4 Ventilation

401.2 Ventilation required. Revise Section 401.2 to read as follows:

401.2 Ventilation required. Every occupied space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with Section 403. Where the air infiltration rate in a dwelling unit is less than 5 3 air changes per hour when tested with a blower door at a pressure of 0.2-inch water column (50 Pa) in accordance with Section 402.4.1.2 of the *Florida Building Code*, *Energy Conservation*, the dwelling unit shall be ventilated by mechanical means in accordance with Section 403.

5th Edition (2014) Florida Building Code, Residential

Chapter 3 Building Planning

R303.4 Mechanical ventilation. Revise Section R303.4 to read as follows:

R303.4 Mechanical ventilation. Where the air infiltration rate of a dwelling unit is less than $5\,\underline{3}$ air changes per hour when tested with a blower door at a pressure of 0.2 inch w.c (50 Pa) in accordance with Section R402.4.1.2 of the *Florida Building Code*, *Energy Conservation* the dwelling unit shall be provided with whole-house mechanical ventilation in accordance with Section M1507.3.

5th Edition (2014) Florida Building Code, Building

Chapter 12 Interior Environment

1203.1 General. Revise Section 1203.1 to read as follows:

1203.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1203.4, or mechanical ventilation in accordance with the *Florida Building Code, Mechanical*. Where the air infiltration rate in a *dwelling unit* is less than $5\underline{\ }3$ air changes per hour when tested with a blower door at a pressure 0.2 inch w.c. (50 Pa) in accordance with Section R402.4.1.2 of the *Florida Building Code, Energy Conservation—Residential Provisions*, the *dwelling unit* shall be ventilated by mechanical means in accordance with Section 403 of the *Florida Building Code, Mechanical*.

HB 535 - Section 26

553.998 Florida Statutes

553.998 Compliance.—All ratings must be determined using tools and procedures developed by the systems recognized under this part and must be certified by the rater as accurate and correct and in compliance with procedures of the system under which the rater is certified. The local enforcement agency shall accept duct and air infiltration tests conducted in accordance with the Florida Building Code, 5th Edition (2014) Energy Conservation, by individuals as defined in s. 553.993(5) or (7) or individuals licensed as set forth in s. 489.105(3)(f), (g), or (i). The local enforcement agency may accept inspections in whole or in part by individuals as defined in s. 553.993(5) or (7).

[To be reviewed by the Energy TAC]

5th Edition (2014) Florida Building Code, Energy Conservation

Chapter 1 [RE] Scope and Administration

R104.5 Approved inspection agencies. Revise Section R104.5 to read as follows:

R104.5 Approved inspection agencies. The *code official* is authorized to accept <u>inspection</u> reports in whole or in part of from either individuals as defined in Section 553.993(5) or (7), <u>Florida Statutes or approved</u> inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

Chapter 1 [CE] Scope and Administration

C104.5 Approved inspection agencies. Revise Section C104.5 to read as follows:

C104.5 Approved inspection agencies. The *code official* is authorized to accept <u>inspection</u> reports in whole or in part of from either individuals as defined in Section 553.993(5) or (7), <u>Florida Statutes or approved</u> inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability

Chapter 4 [RE] Residential Energy Efficiency

R402.4.1.2 Testing. Revise Section R402.4.1.2 to read as follows:

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 7 air changes per hour in Climate Zones 1 and 2, and 3 air changes per hour in Climate Zones 3 through 8. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Where required by the *code official*, testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), Florida Statutes or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope*. During testing:

No change to the remaining text

R403.2.2 Sealing (Mandatory). Revise Section R403.2.2 to read as follows:

R403.2.2 Sealing (Mandatory). All ducts, air handlers, and filter boxes and building cavities that form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section C403.2.7.2 of the Commercial Provisions of this code and shall be shown to meet duct

tightness criteria below. Duct tightness shall be verified by testing to Section 803 of the RESNET Standards by either an energy rater certified in accordance with individuals as defined in Section 553.9903(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i), as authorized by Florida Statutes, to be "substantially leak free" by either of the following:

No change to the remaining text

HB 535 - Section 32.

The Florida Building Commission shall define the term "fire separation distance" in Chapter 2, Definitions, of the Florida Building Code, 5th Edition (2014) Residential, as follows:

 $\underline{\mbox{"FIRE SEPARATION DISTANCE.}}$ The distance measured from the building face to one of the following:

- 1. To the closest interior lot line;
- 2. To the centerline of a street, an alley, or a public way;
- 3. To an imaginary line between two buildings on the lot; or
- 4. To an imaginary line between two buildings when the exterior wall of one building is located on a zero lot line.

The distance shall be measured at a right angle from the face of the wall."

[To be reviewed by the Fire TAC]

5th Edition (2014) Florida Building Code, Residential

Chapter 2 Definitions

Section R202 Definitions

Revise the definition of the term "Fire Separation Distance" to read as follows:

FIRE SEPARATION DISTANCE. The distance measured from the building face to one of the following:

- 1. To the closest interior lot line; or
- 2. To the centerline of a street, an alley or public way; or
- 3. To an imaginary line between two buildings on the *lot*; or
- 4. To an imaginary line between two buildings when the exterior wall of one building is located on a zero lot line.

The distance shall be measured at a right angle from the face of the wall.

The Florida Building Commission shall amend the Florida Building Code, 5th Edition (2014) Residential, to allow openings and roof overhang projections on the exterior wall of a building located on a zero lot line, when the building exterior wall is separated from an adjacent building exterior wall by a distance of 6 feet or more and the roof overhang projection is separated from an adjacent building projection by a distance of 4 feet or more, with 1-hour fire-resistive construction on the underside of the overhang required, unless the separation between projections is 6 feet or more.

[To be reviewed by the Fire TAC]

5th Edition (2014) Florida Building Code, Residential

Chapter 3 Building Planning

SECTION R302 FIRE-RESISTANT CONSTRUCTION R302.1 Exterior walls.

Construction, projections, openings and penetrations of *exterior walls* of *dwellings* and accessory buildings shall comply with Table R302.1(1); or *dwellings* equipped throughout with an *automatic sprinkler system* installed in accordance with Section P2904 shall comply with Table R302.1(2).

Exceptions:

1 – 6 No change

7. Openings and roof overhang projections shall be permitted on the exterior wall of a building located on a zero lot line when the building exterior wall is separated from an adjacent building exterior wall by a distance of 6 feet or more, and the roof overhang projection is separated from an adjacent building projection by a distance of 4 feet or more, with 1 hour fire resistive construction on the underside of the overhang required, unless the separation between projections is 6 feet or more.

HB 535 - Section 34.

The Florida Building Commission shall adopt into the Florida Building Code, 5th Edition (2014) Energy Conservation, the following:

"Section 406 relating to the Alternative Performance Path, Energy Rating Index of the 2015 International Energy Conservation Code (IECC) may be used except as follows for Table R406.4 as an option for demonstrating compliance with the Florida Building Code, Energy Conservation. TABLE R406.4 MAXIMUM ENERGY RATING INDEX shall reflect the following energy rating index: for Climate Zone 1, an index of 58; for Climate Zone 2, an index of 58. The Florida Building Commission shall continue its current adoption process of the 2015 IECC and determine by October 1, 2016, whether onsite renewable power generation may be used for compliance. The commission must also determine whether onsite renewable power generation may be used for a period longer than three years but not more than six consecutive years."

[To be reviewed and determined by the Energy TAC]

5th Edition (2014) Florida Building Code, Energy Conservation

Chapter 4 [RE] Residential Energy Efficiency

R406 Energy Rating Index Compliance Alternative. Add Section R406 to read as follows:

SECTION R406 ENERGY RATING INDEX COMPLIANCE ALTERNATIVE

R406.1 Scope. This section establishes criteria for compliance using an Energy Rating Index (ERI) analysis.

R406.2 Mandatory requirements. Compliance with this section requires that the provisions identified in Sections R401 through R404 labeled as "mandatory" and Section R403.5.3 of the <u>2015 International Energy Conservation Code</u> be met. The building thermal envelope shall be greater than or equal to levels of efficiency and Solar Heat Gain Coefficient in Table 402.1.1 or 402.1.3 of the 2009 *International Energy Conservation Code*.

Exception: Supply and return ducts not completely inside the building thermal envelope shall be insulated to a minimum of R-6.

R406.3 Energy Rating Index. The Energy Rating Index (ERI) shall be a numerical integer value that is based on a linear scale constructed such that the *ERI reference design* has an Index value of 100 and a *residential building* that uses no net purchased energy has an Index value of 0. Each integer value on the scale shall represent a 1-percent change in the total energy use of the rated design relative to the total energy use of the *ERI reference design*. The ERI shall consider all energy used in the *residential building*.

R406.3.1 ERI reference design. The *ERI reference design* shall be configured such that it meets the minimum requirements of the 2006 *International Energy Conservation Code* prescriptive requirements.

The proposed *residential building* shall be shown to have an annual total normalized modified load less than or equal to the annual total loads of the *ERI reference design*.

R406.4 ERI-based compliance. Compliance based on an ERI analysis requires that the *rated design* be shown to have an ERI less than or equal to the appropriate value listed in Table R406.4 when compared to the *ERI reference design*.

R406.5 Verification by approved agency. Verification of compliance with Section R406 shall be completed by an *approved* third party.

R406.6 Documentation. Documentation of the software used to determine the ERI and the parameters for the residential building shall be in accordance with Sections R406.6.1 through R406.6.3.

R406.6.1 Compliance software tools.

Documentation verifying that the methods and accuracy of the compliance software tools conform to the provisions of this section shall be provided to the code official.

R406.6.2 Compliance report. Compliance software tools shall generate a report that documents that the ERI of the *rated design* complies with Sections R406.3 and R406.4.

The compliance documentation shall include the following information:

- 1. Address or other identification of the residential building.
- 2. An inspection checklist documenting the building component characteristics of the *rated design*. The inspection checklist shall show results for both the *ERI reference design* and the *rated design*, and shall document all inputs entered by the user necessary to reproduce the results.
- 3. Name of individual completing the compliance report.
- 4. Name and version of the compliance software tool.

Exception: Multiple orientations. Where an otherwise identical building model is offered in multiple orientations, compliance for any orientation shall be permitted by documenting that the building meets the performance requirements in each of the four (north, east, south and west) cardinal orientations.

TABLE R406.4 MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
1	52 <u>58</u>
2	52 <u>58</u>
3	51
4	54
5	55

6	54
7	54 53 53
8	53

R406.6.3 Additional documentation. The *code official* shall be permitted to require the following documents:

- 1. Documentation of the building component characteristics of the ERI reference design.
- 2. A certification signed by the builder providing the building component characteristics of the *rated design*.
- 3. Documentation of the actual values used in the software calculations for the *rated design*.

R406.7 Calculation software tools. Calculation software, where used, shall be in accordance with Sections R406.7.1 through R406.7.3.

R406.7.1 Minimum capabilities. Calculation procedures used to comply with this section shall be software tools capable of calculating the ERI as described in Section R406.3, and shall include the following capabilities:

1. Computer generation of the *ERI reference design* using only the input for the *rated design*.

The calculation procedure shall not allow the user to directly modify the building component characteristics of the *ERI reference design*.

The calculation procedure shall not allow the user to directly modify the building component characteristics of the ERI reference deisgn.

- 2. Calculation of whole building, as a single *zone*, sizing for the heating and cooling equipment in the *ERI reference design* residence in accordance with Section R403.7.
- 3. Calculations that account for the effects of indoor and outdoor temperatures and part-load ratios on the performance of heating, ventilating and air-conditioning equipment based on climate and equipment sizing.
- 4. Printed *code official* inspection checklist listing each of the *rated design* component characteristics determined by the analysis to provide compliance, along with their respective performance ratings.

R406.7.2 Specific approval. Performance analysis tools meeting the applicable sections of Section R406 shall be *approved*. Tools are permitted to be *approved* based on meeting a specified threshold for a jurisdiction. The *code official* shall approve tools for a specified application or limited scope.

R406.7.3 Input values. When calculations require input values not specified by Sections R402, R403, R404 and R405 of the <u>2015 International Energy Conservation Code</u>, those input values shall be taken from an approved source.

The Florida Building Commission shall adopt into the Florida Building Code, 5th Edition (2014) Residential, the following, which shall become effective on July 1, 2016:

- "Notwithstanding any other provision of code or law, the section setting forth shower lining requirements will include the following exceptions:
- 1. Floor surfaces under showerheads provided for rinsing laid directly on the ground.
- 2. Shower compartments in which the finished shower drain is depressed a minimum of 2 inches (51 mm) below the surrounding finished floor on the first floor level and the shower recess is poured integrally with the adjoining floor."

[To be reviewed by the Plumbing TAC]

5th Edition (2014) Florida Building Code, Residential

Chapter 27 Plumbing Fixtures

P2709.2 Lining required. Revise Section P2709.2 to read as follows:

P2709.2 Lining required. The adjoining walls and floor framing enclosing on-site built-up shower receptors shall be lined with one of the following materials:

- 1. Sheet lead;
- 2. Sheet copper;
- 3. Plastic liner material that complies with ASTM D 4068 or ASTM D 4551;
- 4. Hot mopping in accordance with Section P2709.2.3; or
- 5. Sheet-applied load-bearing, bonded waterproof membranes that comply with ANSI A118.10.

The lining material shall extend not less than 2 inches (51 mm) beyond or around the rough jambs and not less than 2 inches (51 mm) above finished thresholds. Sheet-applied load bearing, bonded waterproof membranes shall be applied in accordance with the manufacturer's instructions.

Exceptions:

- 1. Floor surfaces under showerheads provided for rinsing laid directly on the ground.
- 2. Shower compartments in which the finished shower drain is depressed a minimum of 2 inches (51 mm) below the surrounding finished floor on the first floor level and the shower recess is poured integrally with the adjoining floor.

The Florida Building Commission shall amend the Florida Building Code, 5th Edition (2014) Residential, to provide that the minimum fire separation distance for non-fire resistant rated exterior walls shall be 3 feet or greater and non-fire resistant rated projections shall have a minimum fire separation distance of 3 feet or greater. Projections within 2 feet and less than 3 feet shall include a 1-hour fire-resistance rate on the underside. Projections less than 2 feet are not permitted. Penetrations of the exterior wall within less than 3 feet shall comply with Dwelling Unit Rated Penetration. Penetrations 3 feet or greater are not required to have a fire-resistance rating. Openings in walls shall be unlimited with a fire separation distance of 3 feet or greater.

[To be reviewed by the Fire TAC]

Chapter 3 Building Planning

Delete Tables R302.1(1) and replace with new table as follows:

TABLE R302.1(1) EXTERIOR WALLS

EXTERIOR W	/ALL ELEMENT	MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION
Walls	Fire-resistance rated	1 hour—tested in accordance with ASTM E 119 or UL 263 with exposure from both sides	0 feet
	Not fire-resistance rated	0 hours	3 feet
Projections	Not allowed	N/A	< 2 feet
	Fire-resistance rated	1 hour on the underside	2 feet
	Not fire-resistance rated	0 hours	3 feet
Openings in walls	Not allowed	N/A	< 3 feet
	Unlimited	0 hours	3 feet

Penetrations	All	Comply with Section R302.4	< 3 feet
. Gridianorio		None required	3 feet

For SI: 1 foot = 304.8 mm. N/A = Not Applicable

HB 535 - Section 37

Notwithstanding any law, rule, or regulation to the contrary, a restaurant, cafeteria, or similar dining facility, including an associated commercial kitchen, is required to have sprinklers only if it has a fire area occupancy load of 200 patrons or more.

[To be reviewed by the Fire TAC]

5th Edition (2014) Florida Building Code, Building Chapter 9 Fire Protection Systems

903.2.1.2 Group A-2. Revise Section 903.2.1.2 to read as follows:

[F] 903.2.1.2 Group A-2. An *automatic sprinkler system* shall be provided for Group A-2 occupancies where one of the following conditions exists:

- 1. The *fire area* exceeds 5,000 square feet (464.5 m2);
- 2. The fire area has an occupant load of 100 or more; or
- 3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.

Exception: A restaurant, cafeteria, or similar dining facility, including an associated commercial kitchen, is required to have sprinklers only if it has a fire area occupancy load of 200 patrons or more.

HB 535 - Section 39

Effective October 1, 2017, subsection (1) of section 553.79, Florida Statutes, is amended to read:

(b) A local enforcement agency shall post each type of building permit application on its website. Completed applications must be able to be submitted electronically to the appropriate building department. Accepted methods of electronic submission include, but are not limited to, e-mail submission of applications in portable document format or submission of applications through an electronic fill-in form available on the building department's website or through a third-party submission management software. Payments, attachments, or drawings required as part of the permit application may be submitted in person in a nonelectronic format, at the discretion of the building official.

[To be reviewed by the Code Admin TAC]

5th Edition (2014) Florida Building Code, Building

CHAPTER 1 Scope and Administration

105.3 Application for permit. Revise 105.3 to read as follows:

[A] 105.3 Application for permit. To obtain a *permit*, the applicant shall first file an application therefor in writing on a form furnished by the building department for that purpose.

Permit application forms shall be in the format prescribed by a local administrative board, if applicable, and must comply with the requirements of Section 713.135(5) and (6), *Florida Statutes*.

Each application shall be inscribed with the date of application, and the code in effect as of that date. For a building *permit* for which an application is submitted prior to the effective date of the *Florida Building Code*, the state minimum building code in effect in the permitting jurisdiction on the date of the application governs the permitted work for the life of the *permit* and any extension granted to the *permit*.

Effective October 1, 2017, a local enforcement agency shall post each type of building permit application on its website. Completed applications must be able to be submitted electronically to the appropriate building department. Accepted methods of electronic submission include, but are not limited to, e-mail submission of applications in portable document format or submission of applications through an electronic fill-in form available on the building department's website or through a third-party submission management software.

Payments, attachments, or drawings required as part of the permit application may be submitted in person in a nonelectronic format, at the discretion of the building official.

SB 1602

Section 1. Section 399.031, Florida Statutes, is created to read:

- 399.031 Clearance requirements between elevator doors for elevators inside a private residence.—
- (1) This section may be cited as the "Maxwell Erik 'Max' Grablin Act."
- (2) For elevators installed in a private residence:
- (a) The distance between the hoistway face of the hoistway doors and the hoistway edge of the landing sill may not exceed 3/4 inch for swinging doors and 2 1/4 inches for sliding doors.
- (b)1. Horizontal sliding car doors and gates shall be designed and installed to withstand a force of 75 pounds applied horizontally on an area 4 inches by 4 inches at right angles to

and at any location on the car door without permanent deformation. The deflection may not exceed 3/4 inch and may not displace the door from its guides or tracks. The force must be applied while the door is in the fully closed position.

- 2. Folding car doors shall be designed and installed to withstand a force of 75 pounds applied horizontally using a 4- inch-diameter sphere at any location within the folds on the car door without permanent deformation. The deflection may not 38 exceed 3/4 inch and may not displace the door from its guides or tracks. The force must be applied while the door is in the fully closed position.
- (c) The distance between the hoistway face of the landing door and the hoistway face of the car door or gate shall conform to one of the following:
- 1. If a power-operated horizontally sliding hoistway and car doors are used, the measurement between the leading edge of the doors or sight guard, if provided, may not exceed 4 inches. If it is possible for a user to detach or disconnect either door from the operator and such detachment or disconnection allows the user to operate the door manually, the requirement in subparagraph 5. applies.
- 2. If swinging hoistway doors and folding car doors are used and both doors are in the fully closed position, the space between the hoistway door and the folding door must reject a 4- inch-diameter sphere at all points.
- 3. If swinging hoistway doors and car gates are used, the 56 space between the hoistway door and the car gate must reject a 4-inch-diameter sphere at all points.
- 4. If the car doors are powered and arranged so that they cannot be closed until after the hoistway door is closed, and the car doors automatically open when the car is at a landing and the hoistway door is opened, the measurement between the hoistway face of the hoistway door and the hoistway face of the car door at its leading edge may not exceed 4 inches. If it is possible for a user to detach or disconnect either door from the operator and such detachment or disconnection allows the user to operate the door manually, the requirement in subparagraph 5. applies.
- 5. If swinging or horizontally sliding hoistway doors and manual horizontally sliding car doors are used and both doors are in the fully closed position, the space between the swinging or horizontally sliding hoistway door and the manual horizontally sliding car doors must reject a 4-inch-diameter sphere at all points.
- (3) The underside of the platform of an elevator car shall be equipped with a device that, if the platform of the elevator car is obstructed anywhere on its underside in its downward travel, interrupts the electric power to the driving machine motor and brake, if provided, and stops the elevator car's downward motion within 2 inches. The stroke of the device may not be less than the stopping distance of the platform of the elevator car. The force required to operate the device may not exceed 15 pounds. Downward motion shall be permitted to resume only after the elevator has been manually reset.
- (4) This section applies to all new elevators in a private residence.

Section 2. By October 1, 2016, the Florida Building Commission shall adopt s. 399.031, Florida Statutes, into the Florida Building Code pursuant to s. 553.73(8), Florida Statutes.

Section 3. This act shall take effect July 1, 2016.

[To be reviewed by the Fire TAC/Special Occupancy TAC]

5th Edition (2014) Florida Building Code, Residential

Chapter 3 Building Planning

R321.4 Clearance requirements between elevator doors for elevators inside a private residence. Add Section R321.4 to read as follows:

SECTION R321 ELEVATORS AND PLATFORM LIFTS

R321.1 Elevators. Where provided, passenger elevators, limited-use/limited-application elevators or private residence elevators shall comply with ASME A17.1/CSA B44.

R321.2 Platform lifts. Where provided, platform lifts shall comply with ASME A18.1.

R321.3 Accessibility. Reserved.

R321.4 Clearance requirements between elevator doors for elevators inside a private residence.

R321.4.1 For elevators installed in a private residence:

- (a) The distance between the hoistway face of the hoistway doors and the hoistway edge of the landing sill may not exceed 3/4 inch for swinging doors and 2 1/4 inches for sliding doors.
- (b) 1. Horizontal sliding car doors and gates shall be designed and installed to withstand a force of 75 pounds applied horizontally on an area 4 inches by 4 inches at right angles to and at any location on the car door without permanent deformation. The deflection may not exceed 3/4 inch and may not displace the door from its guides or tracks. The force must be applied while the door is in the fully closed position.
 - 2. Folding car doors shall be designed and installed to withstand a force of 75 pounds applied horizontally using a 4- inch-diameter sphere at any location within the folds on the car door without permanent deformation. The deflection may not 38 exceed 3/4 inch and may not displace the door from its guides or tracks. The force must be applied while the door is in the fully closed position.
- (c) The distance between the hoistway face of the landing door and the hoistway face of the car door or gate shall conform to one of the following:
 - 1. If a power-operated horizontally sliding hoistway and car doors are used, the measurement between the leading edge of the doors or sight guard, if provided, may not exceed 4 inches. If it is possible for a user to detach or disconnect either door from the

operator and such detachment or disconnection allows the user to operate the door manually, the requirement in subparagraph 5. applies.

- 2. If swinging hoistway doors and folding car doors are used and both doors are in the fully closed position, the space between the hoistway door and the folding door must reject a 4- inch-diameter sphere at all points.
- 3. If swinging hoistway doors and car gates are used, the 56 space between the hoistway door and the car gate must reject a 4-inch-diameter sphere at all points.
- 4. If the car doors are powered and arranged so that they cannot be closed until after the hoistway door is closed, and the car doors automatically open when the car is at a landing and the hoistway door is opened, the measurement between the hoistway face of the hoistway door and the hoistway face of the car door at its leading edge may not exceed 4 inches. If it is possible for a user to detach or disconnect either door from the operator and such detachment or disconnection allows the user to operate the door manually, the requirement in subparagraph 5. applies.
- 5. If swinging or horizontally sliding hoistway doors and manual horizontally sliding car doors are used and both doors are in the fully closed position, the space between the swinging or horizontally sliding hoistway door and the manual horizontally sliding car doors must reject a 4-inch-diameter sphere at all points.

R321.4.2 The underside of the platform of an elevator car shall be equipped with a device that, if the platform of the elevator car is obstructed anywhere on its underside in its downward travel, interrupts the electric power to the driving machine motor and brake, if provided, and stops the elevator car's downward motion within 2 inches. The stroke of the device may not be less than the stopping distance of the platform of the elevator car. The force required to operate the device may not exceed 15 pounds. Downward motion shall be permitted to resume only after the elevator has been manually reset.

R321.4.3 This section applies to all new elevators in a private residence.

5th Edition (2014) Florida Building Code, Building

CHAPTER 30 Elevators and Conveying Systems

3013 Clearance requirements between elevator doors for elevators inside a private residence. Add new Section 3013 to read as follows:

<u>Section 3013</u> <u>Clearance requirements between elevator doors for elevators inside a private residence.</u>

3013.1 For elevators installed in a private residence:

- (a) The distance between the hoistway face of the hoistway doors and the hoistway edge of the landing sill may not exceed 3/4 inch for swinging doors and 2 1/4 inches for sliding doors.
- (b) 1. Horizontal sliding car doors and gates shall be designed and installed to withstand a force of 75 pounds applied horizontally on an area 4 inches by 4 inches at right angles to and at any location on the car door without permanent deformation. The deflection may not exceed 3/4 inch and may not displace the door from its guides or tracks. The force must be applied while the door is in the fully closed position.
 - 2. Folding car doors shall be designed and installed to withstand a force of 75 pounds applied horizontally using a 4- inch-diameter sphere at any location within the folds on the car door without permanent deformation. The deflection may not 38 exceed 3/4 inch and may not displace the door from its guides or tracks. The force must be applied while the door is in the fully closed position.
- (c) The distance between the hoistway face of the landing door and the hoistway face of the car door or gate shall conform to one of the following:
 - 1. If a power-operated horizontally sliding hoistway and car doors are used, the measurement between the leading edge of the doors or sight guard, if provided, may not exceed 4 inches. If it is possible for a user to detach or disconnect either door from the operator and such detachment or disconnection allows the user to operate the door manually, the requirement in subparagraph 5. applies.
 - 2. If swinging hoistway doors and folding car doors are used and both doors are in the fully closed position, the space between the hoistway door and the folding door must reject a 4- inch-diameter sphere at all points.
 - 3. If swinging hoistway doors and car gates are used, the 56 space between the hoistway door and the car gate must reject a 4-inch-diameter sphere at all points.
 - 4. If the car doors are powered and arranged so that they cannot be closed until after the hoistway door is closed, and the car doors automatically open when the car is at a landing and the hoistway door is opened, the measurement between the hoistway face of the hoistway door and the hoistway face of the car door at its leading edge may not exceed 4 inches. If it is possible for a user to detach or disconnect either door from the operator and such detachment or disconnection allows the user to operate the door manually, the requirement in subparagraph 5. applies.
 - 5. If swinging or horizontally sliding hoistway doors and manual horizontally sliding car doors are used and both doors are in the fully closed position, the space between the swinging or horizontally sliding hoistway door and the manual horizontally sliding car doors must reject a 4-inch-diameter sphere at all points.

3013.2 The underside of the platform of an elevator car shall be equipped with a device that, if the platform of the elevator car is obstructed anywhere on its underside in its downward travel, interrupts the electric power to the driving machine motor and brake, if provided, and stops the elevator car's downward motion within 2 inches. The stroke of the device may not be less than the stopping distance of the platform of the elevator car. The force required to operate the device may not exceed 15 pounds. Downward motion shall be permitted to resume only after the elevator has been manually reset.

3013.4 This section applies to all new elevators in a private residence.