

## **Proposed Code Modifications**

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850-487-1824**

**WITH COMMENTS**

# TAC: Fire

Total Mods for Fire in No Affirmative Recommendation with a Second: 6

Total Mods for report: 6

## Sub Code: Building

F6383

1

Date Submitted	8/3/2015	Section	407.5	Proponent	Amanda Hickman
Chapter	4	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	No Affirmative Recommendation with a Second				
Commission Action	Pending Review				

### Comments

General Comments	Yes	Alternate Language	No
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#### Related Modifications

#### Summary of Modification

The revision is more consistent with the current level of safety in 2014 FL code.

#### Rationale

See attached.

#### Fiscal Impact Statement

##### Impact to local entity relative to enforcement of code

None. The revision is more consistent with the current level of safety in 2014 FL code.

##### Impact to building and property owners relative to cost of compliance with code

This proposal will have not any impact on cost of smoke compartments in I-2 occupancies that are 22,500 sq. ft. It will reduce the cost of construction of smoke compartments that are permitted to be up to 40,000 sq. ft where permitted by this proposal.

##### Impact to industry relative to the cost of compliance with code

This proposal will have not any impact on cost of smoke compartments in I-2 occupancies that are 22,500 sq. ft. It will reduce the cost of construction of smoke compartments that are permitted to be up to 40,000 sq. ft where permitted by this proposal.

##### Impact to small business relative to the cost of compliance with code

This proposal will have not any impact on cost of smoke compartments in I-2 occupancies that are 22,500 sq. ft. It will reduce the cost of construction of smoke compartments that are permitted to be up to 40,000 sq. ft where permitted by this proposal.

#### Requirements

##### Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Yes. The revision is more consistent with the current level of safety in 2014 FL code.

##### Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes. The revision is more consistent with the current level of safety in 2014 FL code.

##### Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No. The revision is more consistent with the current level of safety in 2014 FL code.

##### Does not degrade the effectiveness of the code

No. The revision is more consistent with the current level of safety in 2014 FL code.

Is the proposed code modification part of a prior code version? No

## 2nd Comment Period

Proponent	Amanda Hickman	Submitted	6/21/2016	Attachments	No
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#### Comment:

There are many elder care facilities in Florida. The base code language greatly increases travel distance for patient egress. Because there is no staff to patient minimum set by healthcare industry, egress time during a fire event could be tremendous for the vulnerable, disabled, sick and elderly. This modification offers a compromised approach in order to maintain safe travel distance while still allowing flexibility in meeting the code.

F6383-G1

**407.5 Smoke barriers.** Smoke barriers shall be provided to subdivide every story used by persons receiving care, treatment or sleeping and to divide other stories with an occupant load of 50 or more persons, into no fewer than two smoke compartments. Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2092 m<sup>2</sup>) in Group I-2, ~~Condition 1, and not more than 40,000 square feet (3716 m<sup>2</sup>) in Group I-2, Condition 2, and.~~ The distance of travel from any point in a smoke compartment to a smoke barrier door shall be not greater than 200 feet (~~60.960 m~~ 60.96 m). The smoke barrier shall be in accordance with Section 709.

Exceptions:

1. A smoke compartment in Group 1-2, Condition 2, is permitted to have an area of not more than 40,000 square feet (3716 m<sup>2</sup>) provided all patient sleeping rooms within that smoke compartment are configured for single patient occupancy and any suite within the smoke compartment complies with Section 407.4.4 .
2. A smoke compartment in Group 1-2, Condition 2, without patient sleeping rooms is permitted to have an area of not more than 40,000 square feet (3716 m<sup>2</sup>).

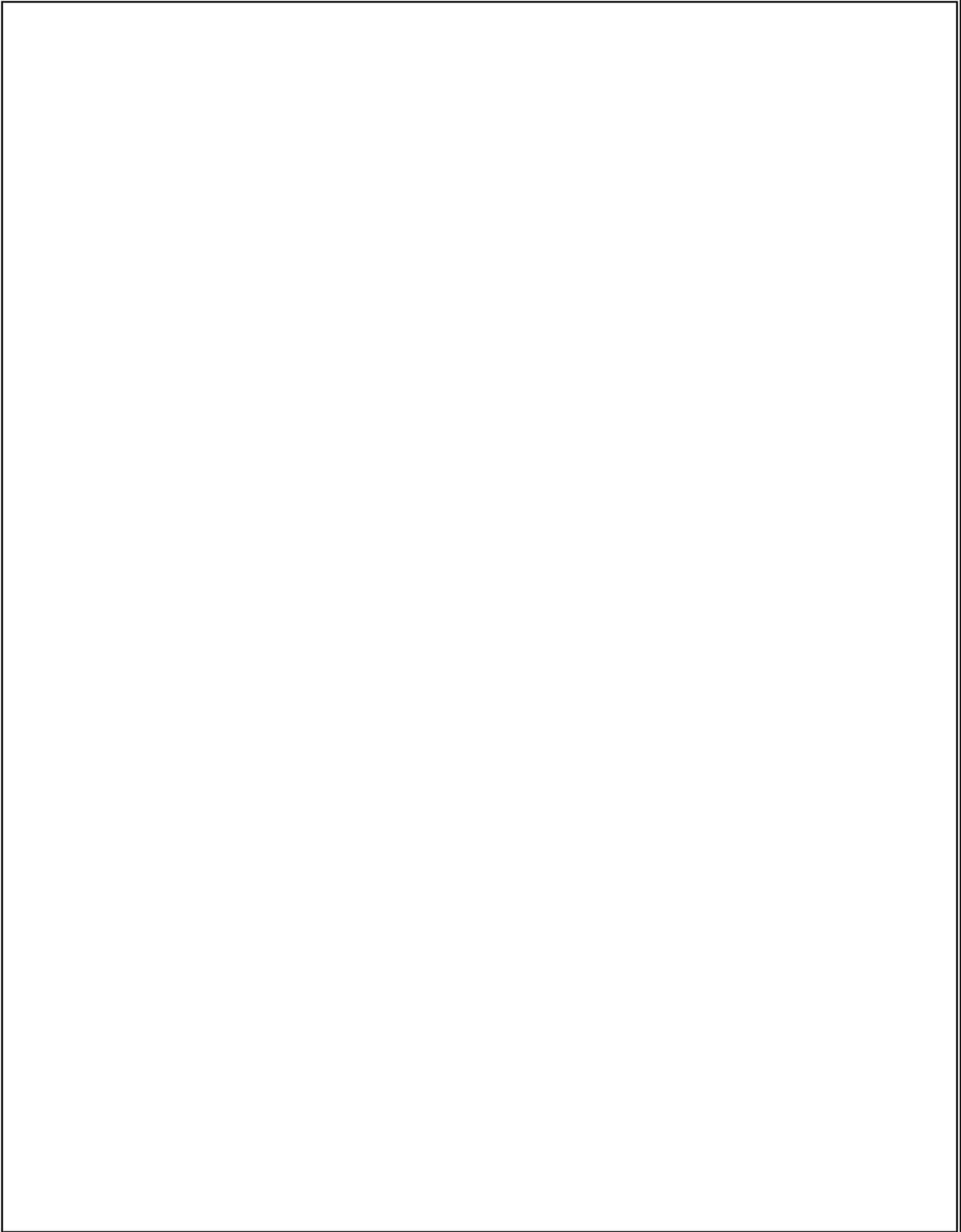
For the past 3 cycles of the ICC code development process, there has been debate over the appropriate size of a smoke compartment in a health care occupancy.

In the 2012 International Building Code, the size in a smoke compartment was 22, 50 sq. ft. with a travel distance to an smoke barrier door of 200 ft. This size was unsatisfactory for the health care industry. The 2015 International Building Code was revised by the health care industry to permit a smoke compartment to be increased to 40,000 sq. ft with the same travel distance. This change was unacceptable to fire service professionals and other fire and life safety advocates. In the 2018 International Building Code development cycle , all parties agreed on compromise language which is based on a comprehensive study by the Fire Protection Engineering Department at Worcester Polytechnic Institute (WPI) that studied patient egress times by hospital staff in various sizes of smoke compartments. The study indicated that the size of the compartment does have an impact on the egress times, but so does number of patients and more importantly, staff-to-patient ratios.

Most concerns were resolved which resulted in the following proposal. Although this proposal does not represent the answer to every question about the size of a smoke compartment, the American Society of Health Care Engineers, the National Association of State Fire Marshals, and the members of Fire Safe North America were able to reach an agreement that resolves the major concerns of most of the interested parties. This proposal was nearly unanimously recommended for approval by the ICC voting membership at the Public Comment Hearing held in Long Beach CA in September 2015. (The results of the Online Governmental Consensus was not known at the time of submittal of this process. )

This proposal addresses the following:

1. Limits the increase of smoke compartment size to hospitals only, which is what the current language states.
2. The travel distance to an exit is not permitted to exceed 200 feet inside the smoke compartment regardless of the size of the smoke compartment.
3. It allows the increase to 40,000 ft<sup>2</sup> to smoke compartments that have single occupancy sleeping rooms -or- smoke compartments without any patient sleeping rooms.
4. Allows the use of suites (which might contain multiple sleeping rooms) in all smoke compartments. However, it limits those smoke compartments that contained multiple patient sleeping rooms (whether they be inside of a suite or outside of a suite) to 22,500 ft<sup>2</sup>.
5. Clarifies that arrangements for single vs. multiple-occupancy rooms is intended to be by design, rather than an administrative decision. Thus, we have used the term "configured for single patient occupancy".



<b>Date Submitted</b> 8/3/2015	<b>Section</b> 717.5.5	<b>Proponent</b> Amanda Hickman
<b>Chapter</b> 7	<b>Affects HVHZ</b> No	<b>Attachments</b> No
<b>TAC Recommendation</b> No Affirmative Recommendation with a Second		
<b>Commission Action</b> Pending Review		

**Comments**

<b>General Comments</b> Yes	<b>Alternate Language</b> No
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**Related Modifications**

**Summary of Modification**

Deletes exception 2 of section 717.5.5 Smoke barriers in order to maintain the current level of protection provided under the 5th edition of the Florida Building Code.

**Rationale**

Deleting exception 2 maintains the current level of protection provided under the 5th edition of the Florida Building Code Section 717.5.5.

HVAC duct is vulnerable to puncture, leakage, and disconnection due to falling debris, thermal damage, and other trauma associated with emergency events. Once the duct is breached, smoke is prone to enter the duct through such breaches and move past (or through) the smoke barrier to otherwise unaffected zones of the building. Thus negating and short-circuiting the intended protection provided by the smoke barrier.

Deleting Exception 2 maintains the requirement for smoke dampers at each point a duct penetrates a smoke barrier and as such protects those penetrations in the smoke barrier against smoke migration through the duct.

**Fiscal Impact Statement**

**Impact to local entity relative to enforcement of code**

None. Already exists in previous code.

**Impact to building and property owners relative to cost of compliance with code**

Using accepted methods of calculating construction costs the estimated installation cost of smoke dampers should not increase the cost of construction by more than one 100th of one percent of the cost of the building.

**Impact to industry relative to the cost of compliance with code**

Using accepted methods of calculating construction costs the estimated installation cost of smoke dampers should not increase the cost of construction by more than one 100th of one percent of the cost of the building.

**Impact to small business relative to the cost of compliance with code**

Using accepted methods of calculating construction costs the estimated installation cost of smoke dampers should not increase the cost of construction by more than one 100th of one percent of the cost of the building.

**Requirements**

**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Yes. Improves safety.

**Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**

Yes. Improves safety.

**Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**

No. Already in previous FL code.

**Does not degrade the effectiveness of the code**

No. Already in previous FL code.

Is the proposed code modification part of a prior code version? No

**2nd Comment Period**

<b>Proponent</b> Amanda Hickman	<b>Submitted</b> 6/21/2016	<b>Attachments</b> No
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**Comment:**

F6382-G1

The current language is a blanket exception for removing all smoke dampers in all smoke barriers. This change was not based on any technical data. It is far too big of a trade-off particularly for Florida. There is a real likelihood of power and water supplies being interrupted during and following a hurricane, along with the potential for multiple simultaneous structure fires and also uncontrollable building-to-building fire spread. History has shown that increased incidents of fires after a disaster can be more destructive to life and property than the disaster itself. We urge the TAC and the Commission to reconsider this modification, as it offers a compromise while still providing appropriate protection.

**717.5.5 Smoke barriers.** A listed smoke damper designed to resist the passage of smoke shall be provided at each point a duct or air transfer opening penetrates a smoke barrier. Smoke dampers and smoke damper actuation methods shall comply with Section 717.3.3.2.

**Exceptions:**

1. Smoke dampers are not required where the openings in ducts are limited to a single smoke compartment and the ducts are constructed of steel.

~~2. Smoke dampers are not required in smoke barriers required by Section 407.5 for Group I-2, Condition 2— where the HVAC system is fully ducted in accordance with Section 603 of the International Mechanical Code and where buildings are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and equipped with quick response sprinklers in accordance with Section 903.3.2.~~

F6799

3

<b>Date Submitted</b>	12/27/2015	<b>Section</b>	302.1	<b>Proponent</b>	Joseph Belcher
<b>Chapter</b>	3	<b>Affects HVHZ</b>	Yes	<b>Attachments</b>	Yes
<b>TAC Recommendation</b>	No Affirmative Recommendation with a Second				
<b>Commission Action</b>	Pending Review				

## Comments

<b>General Comments</b>	Yes	<b>Alternate Language</b>	No
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### Related Modifications

- Table R302.1(1)
- Table R302.1(2)

### Summary of Modification

Delete Tables R302.1(1) and R302.1(2) and add Table R302.1

### Rationale

Thousands of houses have been built in Florida and around the country using the 3 feet fire separation distance standard and there is no indication or information demonstrating that there is a problem with fire spread by exposure to neighboring fires due to inadequate fire separation. The changes to the fire separation distance provisions of the foundation code were not justified. The reasons given in the ICC Code Change Hearings were unsupported. The proponent stated several times the reason for the changes was to provide an incentive to provide fire sprinklers. Stated differently, the reason could just as easily have been "Make one type of construction more expensive so the builder will provide sprinklers". Mention is made that a separation of 5 feet is safer than a separation of 3 feet, but no justification of the statement is provided. (See Reason RB184-09/10 following.) Again, thousands, if not tens of thousands, of homes have been built around the country using the fire separation distance standard of 3 feet and with no reported problems of fire spread by exposure to neighboring fires due to inadequate fire separation.

In addition, thousands of lots throughout Florida have been platted and subdivisions approved at the local level. The change of the fire separation distance provisions in the code have resulted in millions of dollars in costs to allowed continued development. Whether the costs be for fire rating the underside of soffits or adding sprinklers, they were not costs considered during the planning of the subdivisions. Once again, there is no demonstrated need for the increase in the minimum fire separation distance.

### Fiscal Impact Statement

#### Impact to local entity relative to enforcement of code

There is no impact to the local entity relative to enforcement of the code.

#### Impact to building and property owners relative to cost of compliance with code

Reverting to the 3 feet versus 5 feet fire separation distance will lower costs \$2000.00 to \$3000.00 per house without sacrificing safety.

#### Impact to industry relative to the cost of compliance with code

The industry conservatively estimates a cost of \$2000.00 to \$3000.00 per house to provide a fire resistance rating to the underside of projections. The proposed change will eliminate the cost.

#### Impact to small business relative to the cost of compliance with code

Adoption of the foundation code without the requested modification potentially could impact the small builder by causing a loss of sales and in cases where properties are already platted and contracts already signed, create the potential for the company to fail.

### Requirements

#### Has a reasonable and substantial connection with the health, safety, and welfare of the general public

The proposal provides for public health, safety and welfare by reducing the cost of construction while maintaining the time proven fire separation distance requirements and providing options to the builder and the public desiring fire sprinkler protection.

#### Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The proposal improves the code by providing time proven fire separation distance requirements while including options to builders or the public desiring to provide fire sprinkler systems.

#### Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The proposal does not discriminate against materials, products, methods, or systems of construction.

#### Does not degrade the effectiveness of the code

The proposal does not degrade the effectiveness of the code as proven safety measures are reinstated.

Is the proposed code modification part of a prior code version? No

## 2nd Comment Period

<b>Proponent</b>	Joseph Belcher	<b>Submitted</b>	6/20/2016	<b>Attachments</b>	Yes
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**Comment:**

F6799 FHBA requests the Fire TAC recommend approval of the modification as submitted. Please see uploaded Comment File.

**F6799-G1**

Delete Tables R302.1(1) and R302.1(2) and replace with new table.

**SEE UPLOADED SUPPORT FILE**

**Delete Tables R302.1(1) and R302.1(2) and replace with new table.**

**TABLE R302.1 EXTERIOR WALLS**

EXTERIOR WALL 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 the outside or calculated per Florida Building Code Building	0 feet
	Not fire-resistance rated	0 hours	3 feet <sup>a</sup>
Projections	Not allowed	N/A	< 2 feet
	Fire-resistance rated	1 hour on the underside <sup>b, c</sup>	2 feet <sup>a</sup>
	Not fire-resistance rated	0 hours	3 feet
Openings in walls	Not allowed	N/A	< 3 feet
	Unlimited	0 hours	3 feet <sup>a</sup>
Penetrations	All	Comply with Section R302.4	< 3 feet
		None required	3 feet <sup>a</sup>

For SI: 1 foot = 304.8 mm.

N/A = Not Applicable

a. For residential subdivisions where all *dwelling*s are equipped throughout with an automatic sprinkler system installed in a c c o r d a n c e with Section P2904, the *fire separation distance* for nonrated exterior walls and rated projections shall be permitted to be reduced to 0 feet, and unlimited unprotected openings and penetrations shall be permitted, where the adjoining *lot* provides an open setback *yard* that is 6 feet or more in width on the opposite side of the property line.

b. The roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave if fireblocking is provided from the wall top plate to the underside of the roof sheathing.

c. The roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided that gable vent openings are not installed.

F6799 FHBA requests the Fire TAC recommend approval of the modification as submitted. A TAC member stated the changes were not technically justified. In fact, the reason given for making the change in the base code contained no technical justification. A recent report commissioned by the Florida Building Commission and authored by the University of Florida did not demonstrate any fire spread problem based on the code specified Fire Separation Distances contained in all the previous editions of the Florida Building Code. (*Evaluation of Fire Separation Requirements for Zero Lot Line Residential Developments, UF*) The study does, however, indicate installing sprinklers is less costly than providing fire resistant walls and fire rated soffits as required by the base code where fire separation distance is less than five feet. The additional cost to meet the increased fire separation distance, in our opinion, was the whole intent of the change in the base code: make existing proven methods more expensive to “provide the incentive” for adding fire sprinklers. This is not a valid basis for a code change.

Excerpt from REASON Statement for ICC Code Change RB184-09/10:

“Reason: In the last code cycle, Proposal RB67-07/08 (which was withdrawn at the Final Action Hearings) provided as one of its sprinkler alternatives a reduction in exterior wall fire ratings that we believe still is a reasonable and justifiable sprinkler incentive. This proposal will provide a reasonable sprinkler alternative in the RC (*sic*) when residential sprinkler systems are installed.

**This proposal provides a significant financial and design incentive for residential sprinklers.** From a financial perspective, the proposal permits cost reductions related to exterior wall construction and, in the case of a planned community, could result in more developable lots. From a design advantage perspective, the proposal permits homes to have larger footprints without triggering fire-rated exterior walls and permits more flexible use of windows on walls facing property lines.” (Emphasis provided.)

A comment received during the Public Hearings before the Fire TAC cited the destruction of homes in the Pidgeon Forge, TN fire. That fire was a wildland/urban interface fire (WUI) and it is unknown if any compliance with the ICC or NFPA standards for mitigating WUI fires were in place. The WUI standards are not adopted in Florida or by the base code.

The Florida Legislature recognizing the flawed basis of this change to the base code, mandated the Florida Building Commission revise the FBC-R, 5<sup>th</sup> Edition, (2014) to reflect the fire separation distance requirements of the FBC-R 2010. These fire separation distances have been in place since the first adoption of the FBC-R with no demonstrated fire spread problem. FHBA does not believe the Florida Legislature intended this to be a change applicable for twelve to eighteen months. FHBA believes the revisions are meant to be carried forward to the FBC-R 6<sup>th</sup> Edition (2017). The recommendation of the Fire TAC (5-3 vote) is counter to the to the desires expressed in the legislation enacted by the 2016 Legislative Session.

Thousands of houses have been built in Florida and around the country using the 3 feet fire separation distance standard and there is no indication or information demonstrating that there is a problem with fire spread by exposure to neighboring fires due to inadequate fire separation. The changes to the fire separation distance provisions of the foundation code were not justified. The reasons given in the ICC Code Change Hearings were unsupported. The proponent stated several times the reason for the changes was to provide an incentive to provide fire sprinklers. Stated differently, the reason could just as easily have been "Make one type of construction more expensive so the builder will provide sprinklers". Mention is made that a separation of 5 feet is safer than a separation of 3 feet, but no justification of the statement is provided. (See Reason RB184-09/10 following.) Again, thousands, if not tens of thousands, of homes have been built around the country using the fire separation distance standard of 3 feet and with no reported problems of fire spread by exposure to neighboring fires due to inadequate fire separation.

The reason is further flawed when considering Florida's specific circumstances. The reason for the change as submitted to the foundation code stated the provision would reduce construction costs. While doubtful in any case, this may be true in states where the IRC is adopted as published since all dwellings are all required to have fire sprinklers. However, the Florida Legislature has prohibited the adoption the sprinkler provisions as contained in the foundation code at the state and local level. This provision is considered an attempt to avoid the direction of the Florida Legislature.

The Reason provided with the change to the foundation code states the provision will reduce the cost of construction. The requirement to provide fire sprinklers in single family dwellings is conservatively estimated at \$1.50 to \$1.75 per square foot under ideal conditions. The foundation code is not a reduction in the cost of construction in Florida, but is a major increase in the cost of dwelling construction. The industry estimates the added cost of providing a fire resistance rating to the underside of soffits to be \$2000.00 to \$3000.00 per house. Another problem is there are no properly tested methods to provide the fire resistance rating on the underside of soffits for residential construction. The other alternate, fire sprinklers, cost \$1.50 to \$1.75 or more per square foot under ideal conditions such as adequate water supply. While the alternate to provide fireblocking of the eave space at the wall line may be less costly, in conditions where the attic is not sealed, the fireblocking creates problems with other code sections requiring a percentage of attic ventilation openings to be in the bottom portion of the attic space.

In addition, thousands of lots throughout Florida have been platted and subdivisions approved at the local level. The change of the fire separation distance provisions in the code have resulted in millions of dollars in costs to allowed continued development. Whether the costs be for fire rating the underside of soffits or adding sprinklers, they were not costs considered during the planning of the subdivisions. Once again, there is no demonstrated need for the increase in the minimum fire separation distance.

The proposed change eliminates the problems by reverting to the time proven fire separation distance provisions of the FBC 2010 and earlier editions and includes the options provided in the foundation code for sprinklers and fireblocking. In addition, the proposal adds the calculated fire resistance provisions of the Florida Building Code-Building and permits NFPA 13D sprinkler systems as an acceptable method when providing fire sprinklers.

REASON Code Change RB184-09/10:

“Reason: In the last code cycle, Proposal RB67-07/08 (which was withdrawn at the Final Action Hearings) provided as one of its sprinkler alternatives a reduction in exterior wall fire ratings that we believe still is a reasonable and justifiable sprinkler incentive. This proposal will provide a reasonable sprinkler alternative in the IRC when residential sprinkler systems are installed.

**This proposal provides a significant financial and design incentive for residential sprinklers.**

From a financial perspective, the proposal permits cost reductions related to exterior wall construction and, in the case of a planned community, could result in more developable lots. From a design advantage perspective, the proposal permits homes to have larger footprints without triggering fire-rated exterior walls and permits more flexible use of windows on walls facing property lines.

From a fire safety perspective, the proposed requirements under new Table R302.1(2) generally put the code back where it was in 2000 and 2003, so there is essentially no concession compared to how homes have been built under the IRC since the code was first published in 2000. In 2006, the IRC's fire separation distances for non-rated exterior walls were increased from 3 feet to 5 feet for the purpose of coordinating the IRC's residential separation distances with those in the IBC (Code Change G128-03/04).

History shows that residential sprinklers reliably limit fire spread to the room of origin, and with such protection, allowing the code to revert to a 3-foot separation distance provides a reasonable compensation for sprinklers. Certainly, the probability of a favorable outcome in the event of a fire is much better for a sprinklered building with a 3-foot separation versus a nonsprinklered building with a 5-foot separation, so encouraging sprinklers is a preferred approach.

The proposed garage requirement for R309.5 provides a limitation on the application of new Table R302.1(2) by only allowing use of sprinkler incentives in areas where sprinklers are provided. Normally, garages aren't required to have sprinklers; however, where a designer chooses to take advantage of reduced separation requirements for a garage wall, it is appropriate for the garage to be provided with sprinklers as a means of property protection. Proposed design criteria for sprinklers were derived from NFPA 13R Section 6.8.3.3, which addresses sprinkler protection for garages in buildings protected by NFPA 13R sprinkler systems. Often, garage protection is provided by dry pendent or dry sidewall sprinklers connected to a wet pipe sprinkler system.

The original Table R302.1(1) has been retained for jurisdictions that may adopt this edition of the Code without the mandatory sprinkler requirements that are presently in the 2009 IRC and for cases where there are additions or modifications to an existing non-sprinklered property.

**Cost Impact:** This code change proposal will decrease the cost of construction.”

<b>Date Submitted</b>	12/27/2015	<b>Section</b>	312.1.1	<b>Proponent</b>	Joseph Belcher
<b>Chapter</b>	3	<b>Affects HVHZ</b>	No	<b>Attachments</b>	No
<b>TAC Recommendation</b>	No Affirmative Recommendation with a Second				
<b>Commission Action</b>	Pending Review				

**Comments**

**General Comments** No **Alternate Language** Yes

**Related Modifications****Summary of Modification**

Modify measurement for determining where guards are required.

**Rationale**

The requirement to measure the difference in elevation between a walking surface and the adjacent grade has been in the code for many years. When the requirement was changed in the base code there was no justification or proof that a problem existed. At no time during the public hearing, nor the Final Action Hearing was any technical justification presented to substantiate the change requiring the building official to measure 36 inches away from the leading edge of the walking surface or tread to determine when a guardrail should or should not be required. There are no studies that can support claims that this will have an effect on reducing possible injuries. While the proponent promoted this as a means for consistent enforcement of the guard requirements, there is no evidence of increased risk to the safety of the occupant if measuring from the edge of the walking surface to grade below as has been the practice for many, many years. This proposal is consistent with the intent expressed in Florida Statute of providing requirements which will allow effective and reasonable protection for public safety, health, and general welfare for all the people of Florida at the most reasonable cost to the consumer. [Ch. 553.72(1), F.S.]

**Fiscal Impact Statement****Impact to local entity relative to enforcement of code**

The proposed change would reduce the time required for the inspection thereby reducing the cost to provide the inspection.

**Impact to building and property owners relative to cost of compliance with code**

The cost of compliance would be reduced in cases where the difference in elevation was not located in an area posing an immediate fall danger.

**Impact to industry relative to the cost of compliance with code**

The cost of compliance to industry would be reduced in cases where the difference in elevation was not located in an area posing an immediate fall danger.

**Impact to small business relative to the cost of compliance with code**

The cost of compliance to small business would be reduced in cases where the difference in elevation was not located in an area posing an immediate fall danger.

**Requirements****Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

The proposal has a reasonable connection with the safety of the general public by continuing to require guards where an immediate danger from a fall is presented by the difference in elevation between a walking surface and the adjoining grade.

**Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**

The proposal strengthens the code by eliminating the unnecessary extension of the horizontal distance from a walking surface to a difference in elevation to a point where no danger is presented.

**Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**

The proposal does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

**Does not degrade the effectiveness of the code**

The proposal does not degrade the effectiveness of the code.

Is the proposed code modification part of a prior code version? No

**2nd Comment Period**

6801-A3

<b>Proponent</b>	Joseph Belcher	<b>Submitted</b>	6/20/2016	<b>Attachments</b>	Yes
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**Rationale**

One member of the Fire TAC provided an example of a six-inch space between a floor (deck) and a change of elevation greater than thirty inches. While considered a draconian example, with no horizontal dimension specified, it could be claimed the code permits such an arrangement. The proposed alternate language changing the dimension from thirty-six inches to twenty-four inches is seen a reasonable requirement which will provide adequate protection. The specified dimension will be almost the width of two stair treads providing ample space to recognize a large change in elevation. The requirement to measure the difference in elevation between a walking surface and the adjacent grade has been in the code for many years. When the requirement was changed in the base code there was no justification or proof that a problem existed. At no time during the public hearing, nor the Final Action Hearing was any technical justification presented to substantiate the change requiring the building official to measure 36 inches away from the leading edge of the walking surface or tread to determine when a guardrail should or should not be required. There are no studies that can support claims that this will have an effect on reducing possible injuries. While the proponent promoted this as a means for consistent enforcement of the guard requirements, there is no evidence of increased risk to the safety of the occupant if measuring from the edge of the walking surface to grade below as was the practice for many, many years is used. This proposal is consistent with the intent expressed in Florida Statute of providing requirements which will allow effective and reasonable protection for public safety, health, and general welfare for all the people of Florida at the most reasonable cost to the consumer.

**Fiscal Impact Statement**

**Impact to local entity relative to enforcement of code**

The proposed change would reduce the time required for the inspection thereby reducing the cost to provide the inspection.

**Impact to building and property owners relative to cost of compliance with code**

The cost of compliance would be reduced in cases where the difference in elevation was not located in an area posing an immediate fall danger.

**Impact to industry relative to the cost of compliance with code**

The cost of compliance to industry would be reduced in cases where the difference in elevation was not located in an area posing an immediate fall danger.

**Impact to Small Business relative to the cost of compliance with code**

The cost of compliance to small business would be reduced in cases where the difference in elevation was not located in an area posing an immediate fall danger.

**Requirements**

**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

The proposal has a reasonable connection with the safety of the general public by continuing to require guards where an immediate danger from a fall is presented by the difference in elevation between a walking surface and the adjoining grade using a reasonable horizontal measurement.

**Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**

The proposal strengthens the code by eliminating the unnecessary extension of the horizontal distance from a walking surface to a difference in elevation to a point where no danger is presented.

**Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**

The proposal does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

**Does not degrade the effectiveness of the code**

The proposed change does not degrade the effectiveness of the code and eliminates an unnecessary cost to Florida citizens presented by the base code with no appreciable increase in safety

**Is the proposed code modification part of a prior code version? No**

**R312.1.1 Where required. Guards shall be located along open-sided walking surfaces of all decks, porches, balconies, including stairs, ramps and landings that are located more than 30 inches measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be counted as a guard.**

R312.1.1 Where required. Guards shall be located along open-sided walking surfaces of all decks, porches, balconies, including stairs, ramps and landings that are located more than 30 inches measured vertically to the floor or grade below at any point within ~~36~~ 24 inches (914 610 mm) horizontally to the edge of the open side. Insect screening shall not be counted as a guard.

<b>Date Submitted</b>	12/28/2015	<b>Section</b>	302.1	<b>Proponent</b>	Joseph Belcher
<b>Chapter</b>	3	<b>Affects HVHZ</b>	Yes	<b>Attachments</b>	No
<b>TAC Recommendation</b>	No Affirmative Recommendation with a Second				
<b>Commission Action</b>	Pending Review				

**Comments**

<b>General Comments</b>	<b>Yes</b>	<b>Alternate Language</b>	<b>No</b>
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**Related Modifications**

Table R302.1(1)

Table R302.1(2)

**Summary of Modification**

Reinstates exception for zero lot line fire separation distance; Substitutes reference to Table R302.1 for reference to Tables R302.1(1) and R302.1(2).

**Rationale**

The proposal reinstates a previously adopted Florida specific amendment that was inadvertently not resubmitted for the current code. The escalating cost of real estate was the original reason zero lot line subdivisions were created. Zero lot line subdivisions allow a greater density of construction without increasing fire hazards or fire risks. The proposed modification will allow the continued development of previously approved zero lot line subdivisions and allow the approval and development of future zero lot line subdivisions without an added burden and cost for which there has been no demonstrated need. There are thousands of units built in zero lot line subdivisions and there has been no demonstrated fire problem with the fire separation distance measured between building walls and projections versus a lot line.

The FBC-R 2007 with 2009 Supplements and the FBC-R 2010 contained this Florida specific amendment permitting the measurement of fire separation distance to be between building walls and/or projections for zero lot line subdivisions. The Florida specific amendment was unintentionally not resubmitted for the FBC-R 5th Edition. Thousands of lots in subdivisions throughout the state were approved and are developed or are undergoing development based on the provisions related to zero lot lines of the former Florida specific amendment. The estimated cost caused by this unintended consequence in the southern portion of Florida alone is estimated to exceed \$50M for no demonstrated need. The proposed change to the definition will rectify this problem by reinstating the Florida specific amendment allowing the fire separation distance to be measured between buildings for zero lot line subdivisions as previously permitted.

**Fiscal Impact Statement****Impact to local entity relative to enforcement of code**

No impact on enforcement of code.

**Impact to building and property owners relative to cost of compliance with code**

Will result in decreased cost of \$2000 to \$3000 per unit.

**Impact to industry relative to the cost of compliance with code**

Will allow continued development of previously approved zero lot line subdivisions without added burden and cost of providing fire resistance rated walls and soffits.

**Impact to small business relative to the cost of compliance with code**

No fiscal impact to small business.

**Requirements****Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

The change will allow keeping the cost of housing down, thereby allowing more members of the public the opportunity to purchase a home.

**Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**

The change to the code was not intentional on the part of the original proponent or the Florida Building Commission. Adoption of the proposed change will strengthen the code by readopting a proven method of construction while maintaining fire safety.

**Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**

The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

**Does not degrade the effectiveness of the code**

The proposed change does not degrade the effectiveness of the code. Thousands of units have been constructed as permitted by the proposed code change and there has been no demonstrated problem of fire spread in such subdivisions due to exposure from neighboring buildings.

Is the proposed code modification part of a prior code version?

YES

The provisions contained in the proposed amendment are addressed in the applicable international code?

NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?

OTHER

**Explanation of Choice**

The base code does not address the construction of zero lot line subdivisions. A considerable number of such subdivisions exist in South Florida and other regions of Florida. Thousands of lots have been previously approved through local development review processes. The cost of real estate was the original reason for the creation of zero lot line subdivisions to keep housing within the means of the public. The continued high cost of real estate, the fact that the base code does not address the situation, and the thousands of existing platted lots which have been approved at the local level demonstrate that there is a need to expand the foundation code to address zero lot line subdivisions.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?

NO

## 2nd Comment Period

Proponent	Joseph Belcher	Submitted	6/21/2016	Attachments	No
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**Comment:**

F6822 FHBA requests the Fire TAC recommend approval of the modification as submitted

RATIONALE: The tracking chart gives no reason for the NAR vote. As a dissenting vote on the Fire TAC, I can only believe that the intent is to go around the legislative prohibition of mandating fire sprinklers in one- and two- family dwellings and townhouses. Certain members of the Fire TAC continue to act in opposition to legislative directives. The proposal as presented is verbatim from the FBC-R 2010 and FBC-R 2009 Supplement to the FBC-R 2007. The proposal is also verbatim from Chapter 2016-129 LOF which directs the Florida Building Commission to modify the FBC-R 5th Edition (2014) to adopt the Exception for zero lot line developments. While the law stipulates the FBC-R 5th Edition, it is imprudent to believe the Florida Legislature intended the provisions to apply only until the next edition of the code.

Regardless of the actions of the legislature, the zero lot line provisions have been employed in thousands of dwellings in Florida. There are no reported fire problems based on the fire separation distance requirements contained in all the previous editions of the Florida Building Code-Residential or Building. The provision is a long standing Florida specific amendment which was not re-submitted because the original proponent was not aware of the passage of the legislation expiring such amendments with the triennial update of the code

F6822-G1

**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. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the *fire separation distance*.
2. Walls of *dwellings* and *accessory structures* located on the same *lot*.
3. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits are not required to provide wall protection based on location on the *lot*. Projections beyond the *exterior wall* shall not extend over the *lot line*.
4. Detached garages accessory to a *dwelling* located within 2 feet (610 mm) of a *lot line* are permitted to have roof eave projections not exceeding 4 inches (102 mm).
5. Foundation vents installed in compliance with this code are permitted.
6. 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.

<b>Date Submitted</b>	12/28/2015	<b>Section</b>	302.2	<b>Proponent</b>	Joseph Belcher
<b>Chapter</b>	3	<b>Affects HVHZ</b>	Yes	<b>Attachments</b>	No
<b>TAC Recommendation</b>	No Affirmative Recommendation with a Second				
<b>Commission Action</b>	Pending Review				

**Comments****General Comments** Yes**Alternate Language** No**Related Modifications****Summary of Modification**

Modifies townhouse fire separation requirements to retain Florida specific amendment.

**Rationale**

The proposal: 1. Brings forward the provisions of the current code; 2. Incorporates statutory provisions related to townhouse construction and fire separation; 3. Clarifies that when providing walls per Section R302.1 the requirement is for separate walls meeting the requirements for zero clearance from the property line between units; 4. Brings the definition of townhouse in line with that contained in Florida Statute; and 5. Deletes an Exception to the requirements for structural independence for consistency with the other changes to the townhouse provisions and to agree with Florida Statute.

The statutory provisions related to townhouses must be considered by the code because adopting contrary provisions within the code creates a conflict for designers of townhouse projects. Townhouses are defined in Florida Statute and the statutory definition contains provisions addressing the property line between units, the fire resistant separation required, and the exception permitting a single two-hour fire resistance-rated wall. [Ch. 781.203(7)] There is no provision in statute permitting a reduction in the required two-hour fire resistance-rating of the common wall or the use of a when used to separate townhouses. There is no provision in statute permitting the use of a single one-hour fire resistance-rated wall to separate townhouse units. The Florida Legislature has spoken prohibiting the efforts to require fire sprinkler systems in single family dwelling construction.

**Fiscal Impact Statement****Impact to local entity relative to enforcement of code**

None. Proposed language is consistent with the Florida Building Code, 5th Edition (2014).

**Impact to building and property owners relative to cost of compliance with code**

None. Proposed language is consistent with the Florida Building Code, 5th Edition (2014).

**Impact to industry relative to the cost of compliance with code**

None. Proposed language is consistent with the Florida Building Code, 5th Edition (2014).

**Impact to small business relative to the cost of compliance with code**

None. Proposed language is consistent with the Florida Building Code, 5th Edition (2014).

**Requirements****Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Yes. Proposed language is consistent with the Florida Building Code, 5th Edition (2014).

**Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**

Yes. Proposed language is consistent with the Florida Building Code, 5th Edition (2014).

**Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**

No. Proposed language is consistent with the Florida Building Code, 5th Edition (2014).

**Does not degrade the effectiveness of the code**

No. The proposed amendment does not degrade the effectiveness of the code. Proposed language is consistent with the Florida Building Code, 5th Edition (2014).

Is the proposed code modification part of a prior code version?

YES

The provisions contained in the proposed amendment are addressed in the applicable international code?

NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?

OTHER

**Explanation of Choice**

The amendment incorporates statutory provisions related to town house construction.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?

NO

## 2nd Comment Period

<b>Proponent</b>	Joseph Belcher	<b>Submitted</b>	6/21/2016	<b>Attachments</b>	No
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**Comment:**

**F6852-G1** F6852 The Masonry Association of Florida (MAF) and the Florida Independent Concrete and Associated Products (FICAP) request the Fire TAC recommend approval as submitted.

RATIONALE: TAC members opposing the modification maintained there is no Florida specific need for the change. The proponent contends the base code provisions violate the requirements for townhouses established in the definition of townhouse contained in Florida Statute and this provides the Florida specific need. (Ch. 481.201, F.S.) The base code maintains the provisions for a common two-hour fire rated wall, but contains a provision allowing reduction to one-hour if fire sprinklers are installed. In addition, the base code does not require structural stability for the common wall. The reduction in fire resistance rating is not permitted by Florida Statute. Further, Florida Statute requires the common two hour wall to be designed and constructed to maintain its structural integrity independent of the unit on the opposite side of the wall. Adoption of the base code provisions effectively modifies the provisions of Florida Statute.

~~R302.2 Townhouses. Common walls separating townhouses shall be assigned a fire-resistance rating in accordance with Section R302.2, Item 1 or 2. The common wall shared by two townhouses shall be constructed without plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be in accordance with Chapters 34 through 43. Penetrations of the membrane of common walls for electrical outlet boxes shall be in accordance with Section R302.4.~~

~~1. Where a fire sprinkler system in accordance with Section P2904 is provided, the common wall shall be not less than a 1-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263.~~

~~2. Where a fire sprinkler system in accordance with Section P2904 is not provided, the common wall shall be not less than a 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E~~

~~119 or UL 263.~~

Each townhouse shall be considered a separate building and shall be separated by separate fire-resistance rated exterior wall assemblies meeting the requirements of zero clearance from property lines of Section R302.1 for exterior walls.

Exception: A common 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119, UL 263, or in accordance with the *Florida Building Code-Building* Section 727 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall unless such materials and methods of penetration comply with Section R302.4. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.

**R302.2.4 Structural independence. Each individual *townhouse* shall be structurally independent.**

**Exceptions:**

- 1. Foundations supporting *exterior walls* or common walls.**
- 2. Structural roof and wall sheathing from each unit fastened to the common wall framing.**
- 3. Nonstructural wall and roof coverings.**
- 4. Flashing at termination of roof covering over common wall.**
- 5. ~~Townhouses separated by a common wall as provided in Section R302.2, Item 1 or 2.~~**