Code Review 2018 Changes to International Codes IBC - GENERAL - SPECIAL OCC - SPECIAL OCC TAC

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#### **Special Occupancy TAC**

IBC-Special Occupancy Code Change No	IBC-Special Occupancy Section	Change Summary b/t 2015 IBC and 2018 IBC. Special Occupancy.	Change Summary b/t 2017 FBC and 2018 IBC. Special Occupancy.	Staff comments
G117-15	412.3.7, 909.20.6.1, [F] 913.2.2, (IFC 913.2.2), [F] 2702.3, 3007.8.1, 3008.8.1, Chapter 35	<ul> <li>Revises section 412.3.7 "Elevator protection," section 909.20.6.1 [F] "Ventilation systems," revises section 2702.3 [F] "Critical circuits," revises section 3007.8.1 "Protection of wiring cables," revises section 3008.8.1 "Protection of wiring cables" to provide consistency for the protection of cables and electrical circuits. The code change was further modified by public comment to address the addition of ASTM E 1725.</li> <li>Cost Impact: Will not increase the cost of construction. This code change will not increase the cost of construction since the intent of the code is not changed by this proposal.</li> </ul>	Same as change between 2015 IBC and 2018 IBC	
<b>YES (Select Criter</b>	def	NO:       Commission Action         Accommodate Florida Specific Need:         YES (Select Criteria)         a.       b.         b.       c.         d.       e.         others (Explain):		ion Needed
G194-15	3001.2, TABLE 3001.2 (New)	Revises section 3001.2 "Referenced standards," and revises TABLE 3001.2 "ELEVATORS AND CONVEYING SYSTEMS AND COMPONENTS" to provide standards that clarify the application of the code section. The code change was further modified by the Committee. The modification further clarifies the application of the proposal. Cost Impact: Will not increase the cost of construction. This code change proposal will not increase the cost of construction due to the code	between 2015 IBC and 2018 IBC	

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	There may be a dec	formance with these standards. rease in the cost of construction, rity on what is required for						
TAC Action Accommodate Florida Speci YES (Select Criteria)	ic Need:	Commission Action Accommodate Florida Specific Need: YES (Select Criteria)	NO:			TAC	Cmsn.	
a. b. c. d. e. Others (Explain):		a. b. c. d. e. f. Others (Explain):		No Action	n Needed			
			-	Overlap provisions	ping			
G195-15 3001.:	communication syst and speech impaired options for manufact code change was fut Committee. The contare intended to provide for manufacturers and <b>Cost Impact:</b> Will n construction. This contarease the cost of already requires cort standards. There <b>m</b>	ot increase the cost of ode change proposal will not construction due to the code of ormance with these ay be a decrease in the cost of to providing clarity on what is	Same as cha between 201 and 2018 IB	15 IBC				
TAC Action Accommodate Florida Speci		Commission Action Accommodate Florida Specific Need:		L		TAC	Cmsn.	
YES (Select Criteria) a. b. c. d. e. Others (Explain):	NO:	YES (Select Criteria) abcdef Others (Explain):	NO:	No Action	n Needed			
				Overlap provisions	ping			
G197-15 3004.2	requirements for e alterations. Cost Impact: Will n	04.2.2 "Escalators" to <b>clarify</b> scalators undergoing ot increase the cost of aception to this section	Same as cha between 201 and 2018 IB	15 IBC				

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		-	nts for escalators undergoing visions should be in the IEBC,						
TAC Action			Commission Action	ı			TAC	Cmsn.	
	orida Specific Need:		Accommodate Florida Specific Need:						
YES (Select Criteri a. b. c. Others (Explain):	a) ] def	NO:	YES (Select Criteria)	NO:	No Actio	on Needed			
					Overla	oping			
					provisions				
G201-15	1020.1.1(IFC [BE] 1020.1.1) (New), 3006.2.1 (New)	protection," and revis corridors" to provide r a rating requirement. <b>Cost Impact:</b> Will no construction. This will construction depending interpreted. This item if it had not been inter the hoistway opening	0.1.1 "Hoistway opening es section 3006.2.1 "Rated much <b>needed clarity by</b> adding t increase the cost of I not increase the cost of ng upon how this issue is being will only increase construction rpreted to require protection of in rated corridors. This would hply with Section 3006.3.	Same as ch between 20 and 2018 IE	15 IBC				
YES (Select Criteri abc	orida Specific Need: a) def	NO:	Commission Action         Accommodate Florida Specific Need:         YES (Select Criteria)         a.       b.         c.       d.       e.         other       f.	NO:	No Actio	on Needed		Cmsn.	
Others (Explain):			Others (Explain):		Overla	nning			
					provisions	5pmg			
G202-15	405.4.3, 708.1, 716.5.9.3, [F] 907.5.2.1 (IFC 907.5.2.1), 3006.4, 3007.6, 3007.6.1, 3007.6.3, 3007.9, 3007.9,1,	907.5.2.1 (IFC 907.5. 3007.6.3, 3007.9, 300 the intent of previous <b>Cost Impact:</b> Will no	t increase the cost of simply clarification of when	This change similar to th FBC. The F provides for specific cha this section	at of the BC Florida		ered dur	· ·	o be 2 of the code

<b></b>	0000 0			1				5
	3008.6						 -	
YES (Select Criteri a. b. c.	orida Specific Need: a) def	NO:	Commission Action         Accommodate Florida Specific Need:         YES (Select Criteria)         a.       b.       c.       d.       e.       f.         Other (for phice)       d.       e.       f.       d.	NO:	No Actio	n Needed	Cmsn.	
Others (Explain):			Others (Explain):		Overlap provisions	ping		
G203-15	3007.1	clarify the intent of the construction. This wi FSAE elevators from is only the portion of	ot increase the cost of Il save money by not requiring In the garage and clarifying that it the building above e department vehicle access	Same as ch between 20 and 2018 IE	15 IBC			
YES (Select Criteri	rida Specific Need: a) ] def		Commission Action         Accommodate Florida Specific Need:         YES (Select Criteria)         a.       b.       c.       d.       e.       f.         Others (Explain):	NO:	No Actio	n Needed ping	Cmsn.	
					provisions			
G204-15	3007.3, 3008.3	revises section 3008 the code that addres misinterpreted. <b>Cost Impact:</b> Will no construction. This is a savings if it was int	7.3 "Water protection," and 3.3 "Water protection" to <b>clarify</b> ses items that are commonly of increase the cost of merely a clarification. It may be terpreted to include the matic sprinkler system within or lobby.	Same as ch between 20 and 2018 IE	15 IBC			

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	orida Specific Need:		Commission Action Accommodate Florida Specific Need:			TAC	Cmsn.	
YES (Select Criteri abc Others (Explain):	a)def	NO:	YES (Select Criteria) abcdef Others (Explain):	NO:	No Action Needed			
					Overlapping provisions			
G207-15	3008.1, 3008.1.1 (New), 3008.8.1 (New)	3008.1.1 "Number of elevators," and adds "Determination of sta more reasonable pe while retaining the c more quickly than w <b>Cost Impact:</b> Will n construction. This pi of construction as it of elevators necessa	<ul> <li>08.1 "General," adds new section f occupant evacuation s new section 3008.8.1 andby power load" to provide a arformance-based approach but apacity to evacuate buildings ith stairs alone.</li> <li>ot increase the cost of roposal will decrease the cost will possibly reduce the number ary for occupant evacuation and acity necessary for standby</li> </ul>	Same as ch between 20 and 2018 IE	15 IBC			
TAC Action	I		Commission Action			TAC	Cmsn.	
	orida Specific Need:		Accommodate Florida Specific Need:					
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					Overlapping			
					provisions			
				L _				
G208-15	3008.1, 3008.6.1	section 3008.6.1 " A ramp" to help with th garages and open p <b>Cost Impact:</b> Will n construction. <b>Will de</b> construction. This w stairway. This excep additional stairway o	ot increase the cost of	Same as ch between 20 and 2018 IE	15 IBC			

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TAC Action Accommodate Flo YES (Select Criteri	rida Specific Need:	NO:	Commission Action Accommodate Florida Specific Need: YES (Select Criteria)	NO:		TAC	Cmsn.	
a. b. c. c. Others (Explain):	def		ab cdef Others (Explain):		No Action Needed			
					Overlapping provisions			
FS51-15	713.13, 713.14, 3002.1	incinerator rooms," r dumbwaiter and othe section 3002.1 "Hois because the propose 713.13, 713.14 and 3 necessary to permit contained in Section referencing only Sec could be misunderst Section 712 are not chutes and incinerat elevator, dumbwaite 713.14, or for hoistw 3002.1. Section 712 shaft enclosures wer the reference to that 713.14 and 3002.1 w code. <b>Cost Impact:</b> Will no construction. This ch the cost of construct	.13 "Waste and linen chutes and evises section 713.14 "Elevator er hoistways," and revises stway enclosure protection" ed references in Sections 3002.1 to Section 712 are the use of the exceptions 712 for shaft construction. By ction 713 from these sections it ood that the exceptions of applicable for waste and linen or rooms of Section 713.13, for r and other hoistways of Section ray enclosures of Section is where the exceptions for re relocated in the 2012 IBC and section from Sections 713.13, were overlooked for the 2015	Same as ch between 20 and 2018 IB	15 IBC			
		the use of the excep Section 712.						
TAC Action         Accommodate Floc         YES (Select Criteri         a.       b.         c.         Others (Explain):	rida Specific Need: a) ] def	NO:	Commission Action         Accommodate Florida Specific Need:         YES (Select Criteria)         a.       b.         b.       c.         d.       e.         others (Explain):	NO:	No Action Needed		Cmsn.	
G223-15	107.2.7 (New), 202 (New),		to section 202 "Relocatable ection 3101.1 "scope," adds new	This change similar to tha		pping pro	ovision to	o be

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	3101.1, 3112 (New), 3112.1 (New), 3112.1.1 (New), 3112.2 (New), 3112.3 (New), 3112.4 (New)	section 3112 "RELO new section 3112.1 " 3112.1.1 "compliance "Supplemental inform "manufacturer's data 3112.4 "Inspection a misinterpretation of t relocatable structure that are designed to <b>Cost Impact:</b> Will no construction. There is clarification as to what applicable to this sector	CATABLE BUILDINGS," adds new CATABLE BUILDINGS," adds 'General," adds new section e," adds new section 3112.2 nation," adds new section 3112 a plate," and adds new section gencies" to remedy possible a his section that is specific to s used for commercial purposes be moved. ot increase the cost of s no cost impact since it is a at types of structures are ction. The IRC addresses ng used as dwellings.	FBC. The FBC provides for Florida specific changes to this section	considered during step 2 of the code change process
YES (Select Crite	def		Commission Action         Accommodate Florida Specific Need:         YES (Select Criteria)         a.       b.       c.       d.       e.       f.         Others (Explain):	NO: No Acti	ion Needed
G12-16	202	make this definition of 2015 IRC R322.1.5 t (RB182-13) to ensur definition of the Nat Program. Cost Impact: Will no construction. Modifyi	definition "Lowest floor" to consistent with the change to that was Approved as Submitted re consistency with the tional Flood Insurance of increase the cost of ng the definition does not in is used or the requirements n.	Same as change between 2015 IBC and 2018 IBC	Flood provision

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YES (Select Criter	orida Specific Need: a) def	NO:	Commission Action         Accommodate Florida Specific Need:         YES (Select Criteria)         a.       b.       c.       d.       e.       f.         Others (Explain):	NO:	No Action Needed	Cmsn.	
			others (Explain).		Overlapping provisions		
FS74-15	1023.3.1, 3007.6.3, 3008.6.3, 3008.6.3.1, 402.8.6.1, 405.4.2, 405.4.3, 407.3.1, 408.3.8, 410.3.5, 510.2, 705.8.2, 706.8, 3104.10, 722.2.4.4, 909.20.3.1, 909.20.3.2	section 405.4.2 "Smo section 405.4.3 "Elev "Corridor doors," revi exit stairway and ram 410.3.5 "Proscenium "Horizontal building s section 705.8.2 "Prot section 706.8 "Openi "Columns built into w revises section 909.2 section 909.20.3.2 "V section 1023.3.1 "Exi 3008.6.3 "Lobby doo 3008.6.3.1 "Vision pa "Lobby doorways," au "Tunneled walkway" provide for more effe enforcement of the p	20.3.1 "Balcony doors," revises (estibule doors," adds new tension," revises section rways," revises section anel," revises section 3007.6.3 nd revises section 3104.10 to correlate references to ctive application and	Same as ch between 20 and 2018 IE	15 IBC		
YES (Select Criter	rida Specific Need: a) def		Commission Action         Accommodate Florida Specific Need:         YES (Select Criteria)         a.       b.       c.       d.       e.       f.         Others (Explain):	NO:	No Action Needed	Cmsn.	
					Overlapping provisions		
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## Code Change No: G117-15

**Original Proposal** 

Section(s): 412.3.7, 909.20.6.1, [F] 913.2.2, (IFC 913.2.2), [F] 2702.3, 3007.8.1, 3008.8.1, Chapter 35

Proponent: Robert Davidson (RJDCodeConcepts@aol.com)

#### Revise as follows:

**412.3.7 Elevator protection.** Wires or cables that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, *ventilation* and fire detecting systems to elevators shall be protected by <del>construction havingone of the following methods:</del>

- 1. Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a *fire-resistance rating* of not less than 1 hour, or.
- 2. Electrical circuit protective systems shall be circuit integrity cable having tested in accordance with ASTM E 1725 and shall have a fireresistance fire-resistance rating of not less than 1 hour. Electrical circuit protective systems shall be installed in accordance with their listing requirements.
- 3. Construction having a *fire-resistance rating* of not less than 1 hour.

**909.20.6.1 Ventilation systems.** Smokeproof enclosure ventilation systems shall be independent of other building ventilation systems. The equipment, control wiring, power wiring and ductwork shall comply with one of the following:

- 1. Equipment, control wiring, power wiring and ductwork shall be located exterior to the building and directly connected to the smokeproof enclosure or connected to the smokeproof enclosure by ductwork enclosed by not less than 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.
- 2. Equipment, control wiring, power wiring and ductwork shall be located within the smokeproof enclosure with intake or exhaust directly from and to the outside or through ductwork enclosed by not less than 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.

3. Equipment, control wiring, power wiring and ductwork shall be located within the building if separated from the remainder of the building, including other mechanical equipment, by not less than 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.

#### Exceptions Exception:

- Control wiring and power wiring <u>utilizing located outside of</u> a 2-hour rated cable or cable system fire barrier construction shall be protected using any one of the following <u>methods:</u>
  - 1.1 <u>Cables used for survivability of required critical circuits shall be listed in accordance</u> with UL 2196 and shall have a *fire-resistance rating* of not less than 2 hours.
  - 1.2 Where encased with not less than 2 inches (51 mm) of concrete.
  - <u>1.3</u> Control wiring and power wiring protected by a listed electrical Electrical circuit protective system systems tested in accordance with ASTM E 1725 and shall have a fire-resistance rating of not less than 2 hours. Electrical circuit protective systems shall be installed in accordance with their listing requirements.

[F] 913.2.2 Circuits supplying fire pumps. Cables used for survivability of circuits supplying fire pumps shall be protected using one of the following methods:

- 1. Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a *fire-resistance rating* of not less than 1 hour.
- 2. Electrical circuit protective systems shall be tested in accordance with ASTM E 1725 and shall have a fire-resistance rating of not less than 1 hour. Electrical circuit protective systems shall be installed in accordance with their listing requirements.
- 3. Construction having a *fire-resistance rating* of not less than 1 hour.

#### [F] 2702.3 Critical circuits. Required critical circuits shall be protected using one of the following methods:

- Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a fire-resistance rating of not less than 1 hour.
- 2. Electrical circuit protective systems shall be tested in accordance with ASTM E 1725 and shall have a *fire-resistance rating* of not less than 1 hour. Electrical circuit protective systems shall be installed in accordance with their listing requirements.
- 3. Construction having a *fire-resistance rating* of not less than 1 hour.

3007.8.1 Protection of wiring or cables. Wires or cables that are located outside of the elevator hoistway and machine room and that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, ventilation and fire-detecting systems to fire service access elevators shall be protected by construction having using one of the following methods:

- 1. Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a fire-resistance rating of not less than 2 hours,
- 2. Electrical circuit protective systems shall be a circuit integrity cable having tested in accordance with ASTM E 1725 and shall have a *fire-resistance rating* of not less than 2 hours-or. Electrical circuit protective systems shall be protected by a listed electrical protective system-installed in accordance with their listing requirements.
- 3. Construction having a *fire-resistance rating* of not less than 2 hours.

Exception: Wiring and cables to control signals are not required to be protected provided that wiring and cables do not serve Phase II emergency in-car operations.

3008.8.1 Protection of wiring or cables. Wires or cables that are located outside of the elevator hoistway, machine room, control room and control space and that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, ventilation and firedetecting systems to occupant evacuation evacuation elevators shall be protected by construction having using one of the following methods:

- 1. Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a fire-resistance rating of not less than 2 hours, shall be circuit integrity cable having a fire-resistance rating of not less than 2 hours or shall be protected by a listed electrical circuit protective system having a fire-resistance rating of not less than 2 hours.
- 2. Electrical circuit protective systems shall be tested in accordance with ASTM E 1725 and shall have a *fire-resistance rating* of not less than 2 hours. Electrical circuit protective systems shall be installed in accordance with their listing requirements.
- 3. Construction having a *fire-resistance rating* of not less than 2 hours.

Exception: Wiring and cables to control signals are not required to be protected provided that wiring and cables do not serve Phase II emergency in-car operation.



#### Add new standard(s) as follows:

#### ASTM E 1725 "STANDARD TEST METHODS FOR FIRE TESTS OF FIRE-RESISTIVE BARRIER SYSTEMS FOR ELECTRICAL SYSTEM COMPONENTS"

**Reason:** This series of code changes is intended to standardize the methods of protecting wiring or cables determined to be essential for the operation of systems and building services during emergency conditions. The basic intent of the code change proposals is already in the code, albeit somewhat random and inconsistent between sections. The change would permit protection of critical circuits using the most up to date technology based on current test methods while still recognizing the commonly used generic fire resistant materials constructed as an assembly already approved for use. Other than reformatting each section and adding a requirement for electrical circuit protective systems to be tested to the appropriate ASTM standard, there is no other significant change to what we believe is the intent of the code, and what the code already requires and/or permits.

**Cost Impact:** Will not increase the cost of construction This code change will not increase the cost of construction since the intent of the code is not changed by this proposal.

**Analysis:** A review of the standard proposed for inclusion in the code, ASTM E 1725 "STANDARD TEST METHODS FOR FIRE TESTS OF FIRE-RESISTIVE BARRIER SYSTEMS FOR ELECTRICAL SYSTEM COMPONENTS", , with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 2, 2015.

Report of Committee Action Hearings

#### **Committee Action:**

**Committee Reason:** The proposal provides consistency for the protection of cables and electrical circuits. The five current locations addressing this issue have five unique sets of requirements. This proposal will provide consistency. It allows other methods that have been tested and proved effective. The concern raised is the term 'critical circuit'. The term is undefined and the terms used in the NEC are different.

#### **Assembly Action:**

None

**Approved as Submitted** 

Public Comments

#### Public Comment 1:

## Jonathan Roberts, representing Underwriters Laboratories (jonathan.roberts@ul.com) requests Approve as Modified by this Public Comment.

#### Modify as follows:

**412.3.7 Elevator protection.** Wires or cables that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, *ventilation* and fire detecting systems to elevators shall be protected by one of the following methods:

- 1. Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a *fire-resistance rating* of not less than 1 hour.
- Electrical circuit protective systems shall be tested in accordance with ASTM E 1725 and shall have a fire-resistance rating of not less than 1 hour. Electrical circuit protective systems shall be installed in accordance with their listing requirements.
- 3. Construction having a *fire-resistance rating* of not less than 1 hour.

**909.20.6.1 Ventilation systems.** Smokeproof enclosure ventilation systems shall be independent of other building ventilation systems. The equipment, control wiring, power wiring and ductwork shall comply with one of the following:

- Equipment, control wiring, power wiring and ductwork shall be located exterior to the building and directly connected to the smokeproof enclosure or connected to the smokeproof enclosure by ductwork enclosed by not less than 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.
- 2. Equipment, control wiring, power wiring and ductwork shall be located within the smokeproof enclosure with intake or exhaust directly from and to the outside or through ductwork enclosed by not less than 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.

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3. Equipment, control wiring, power wiring and ductwork shall be located within the building if separated from the remainder of the building, including other mechanical equipment, by not less than 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.

#### Exception:

- 1. Control wiring and power wiring located outside of a 2-hour fire barrier construction shall be protected using any one of the following methods:
  - 1.1 Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a fire-resistance rating of not less than 2 hours.
  - 1.2 Where encased with not less than 2 inches (51 mm) of concrete.
  - 1.3 Electrical circuit protective systems tested in accordance with ASTM E 1725 and shall have a fire-resistance rating of not less than 2 hours. Electrical circuit protective systems shall be installed in accordance with their listing requirements.

[F] 913.2.2 Circuits supplying fire pumps. Cables used for survivability of circuits supplying fire pumps shall be protected using one of the following methods:

- 1. Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a *fire-resistance rating* of not less than 1 hour.
- Electrical circuit protective systems shall be tested in accordance with ASTM E 1725 and shall have a fire-resistance rating of not less than 1 hour. Electrical circuit protective systems shall be installed in accordance with their listing requirements.
- 3. Construction having a *fire-resistance rating* of not less than 1 hour.

[F] 2702.3 Critical circuits. Required critical circuits shall be protected using one of the following methods:

- 1. Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a *fire-resistance rating* of not less than 1 hour.
- Electrical circuit protective systems shall be tested in accordance with ASTM E 1725 and shall have a fire-resistance rating of not less than 1 hour. Electrical circuit protective systems shall be installed in accordance with their listing requirements.
- 3. Construction having a *fire-resistance rating* of not less than 1 hour.

**3007.8.1 Protection of wiring or cables.** Wires or cables that are located outside of the elevator hoistway and machine room and that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, *ventilation* and fire-detecting systems to fire service access elevators shall be protected using one of the following methods:

- 1. Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a *fire-resistance rating* of not less than 2 hours.
- Electrical circuit protective systems shall be tested in accordance with ASTM E 1725 and shall have a fire-resistance rating of not less than 2 hours. Electrical circuit protective systems shall be installed in accordance with their listing requirements.
- 3. Construction having a *fire-resistance rating* of not less than 2 hours.

**Exception:** Wiring and cables to control signals are not required to be protected provided that wiring and cables do not serve Phase II emergency in-car operations.

**3008.8.1 Protection of wiring or cables.** Wires or cables that are located outside of the elevator hoistway, machine room, control room and control space and that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, *ventilation* and fire-detecting systems to occupant evacuation elevators shall be protected using one of the following methods:

- 1. Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a *fire-resistance rating* of not less than 2 hours.
- Electrical circuit protective systems shall be tested in accordance with ASTM E 1725 and shall have a fire-resistance rating-of not less than 2 hours. Electrical circuit protective systems shall be installed in accordance with their listing requirements.
- 3. Construction having a *fire-resistance rating* of not less than 2 hours.

**Exception:** Wiring and cables to control signals are not required to be protected provided that wiring and cables do not serve Phase II emergency in-car operation.

**Commenter's Reason:** We agree with many of the updates in this proposal, which are reflected in this public comment. However we cannot support the addition of ASTM E 1725 in these sections.

Cables used for survivability of required critical circuits should be tested to evaluate their functionality during a period of fire exposure. UL 2196 evaluates a cable's ability to function during the fire exposure test, including having voltage and current applied to the cable during the fire exposure portion of the test. It also includes specific conditions of acceptance to verify the cable's functionality, both during and after the fire exposure and a hose stream test.



ASTM E1725, which is proposed as an alternate method for determining cable survivability does not evaluate the cable's ability to function during the fire test. Instead it includes acceptance criteria that does not allow temperatures on the cable from exceeding an average temperature 250°F above ambient or an individual thermocouple temperature from exceeding 325°F above ambient, both which are far in excess of the temperature ratings of most cables used in these applications. It also does not evaluate performance after hose stream test exposure.

	Final Hearing Results	
G117-15	AM	IPC1

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## Code Change No: G194-15

#### **Original Proposal**

#### Section: 3001.2, TABLE 3001.2 (New)

Proponent: Edward Kulik, representing Building Code Action Committee (bcac@iccsafe.org)

#### **Revise as follows:**

**3001.2 Referenced standards.** Except as otherwise provided for in this code, the design, construction, installation, *alteration*, repair and maintenance of elevators and conveying systems and their components shall conform to ASME A17.1/CSA B44, ASME A17.7/CSA B44.7, ASME A90.1, ASME B20.1, ANSI MH29.1, ALI ALCTV the applicable standard specified in Table 3001.2 and ASCE 24 for construction in flood hazard areas established in Section 1612.3.

#### Add new text as follows:

# ELEVATORS AND CONVEYING SYSTEMS AND COMPONENTSTYPESTANDARDElevators, escalators, dumbwaiters, moving walks, material liftsASME A17.1/CSA B44Belt manliftsASME A90.1Conveyors and related equipmentASME B20.1Automotive liftsALI ALCTVPlatform lifts, stairway chairlifts, wheelchair liftsASME A18.1

**TABLE 3001.2** 

**Reason:** The referenced installation and design standards do not apply to all elevators and conveying systems and their components. Each standard is for a certain type. Although covered for accessibility in Section 1109.8, the installation standard for Platform Lifts and Stairway Chairlifts, ASME A18.1, is not included in Chapter 30. ASME A18.1 is a separate standard, not covered by Section 1.1.2 of ASME A17.1.

This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

#### Cost Impact: Will not increase the cost of construction

This code change proposal will not increase the cost of construction due to the code already requires conformance with these standards. There may be a decrease in the cost of construction, due to providing clarity on what is required for specific equipment.

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#### Report of Committee Action Hearings

#### **Committee Action:**

#### Approved as Modified

#### Modify as follows:

#### TABLE 3001.2 ELEVATORS AND CONVEYING SYSTEMS AND COMPONENTS

ТҮРЕ	STANDARD
Elevators, escalators, dumbwaiters, moving walks, material lifts	ASME A17.1/CSA B44 <u>, ASME A17.7/CSA B44.7</u>
Belt manlifts	ASME A90.1
Conveyors and related equipment	ASME B20.1
Automotive lifts	ALI ALCTV
Platform lifts, stairway chairlifts, wheelchair lifts	ASME A18.1
Industrial scissors lifts	ANSI MH29.1

**Committee Reason:** This proposal adds standards that clarify the application of the code section. The modification further clarifies the application of the proposal.

#### **Assembly Action**

Final Hearing Results

G194-15

AM

None

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## Code Change No: G195-15

#### **Original Proposal**

#### Section: 3001.2 (New)

**Proponent:** Andrew Cid, representing Private Citizen for The Initiative for Emergency Elevator Communication Systems for the Deaf, Hard of Hearing and Speech Impaired (andycid99@gmail.com)

#### Add new text as follows:

#### <u>3001.2</u> <u>Emergency elevator communication systems for the deaf, hard of hearing and speech</u> <u>impaired</u> An emergency two-way communication system shall be provided that:

- 1. Is a visual text-based and a video-based live interactive system,
- 2. Is fully accessible by the deaf and hard of hearing and speech impaired, and
- 3. Is located between the elevator car and the local emergency authorities at a point outside of the hoistway.

**Reason:** The referenced installation and design standards do not apply to all elevators and conveying systems and their components. Each standard is for a certain type. Although covered for accessibility in Section 1109.8, the installation standard for Platform Lifts and Stairway Chairlifts, ASME A18.1, is not included in Chapter 30. ASME A18.1 is a separate standard, not covered by Section 1.1.2 of ASME A17.1.

This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

#### Cost Impact: Will not increase the cost of construction

This code change proposal will not increase the cost of construction due to the code already requires conformance with these standards. There may be a decrease in the cost of construction, due to providing clarity on what is required for specific equipment.

Report of Committee Action Hearings

#### **Committee Action:**

#### **Approved as Modified**

#### Modify as follows:

**3001.2 Emergency elevator communication systems for the deaf, hard of hearing and speech impaired.** An emergency twoway communication system shall be provided that:

- 1. Is a visual and text-based and a video-based 24/7 live interactive system,
- 2. Is fully accessible by the: deaf and hard of hearing and, the speech impaired, the visually impaired, and shall include voice-only options for hearing individuals.
- Is located between the elevator car The ability to communicate with emergency personnel utilizing existing video conferencing technology, and the local emergency authorities at a point outside of the hoistway-chat / text software, or other approved technology.

**Committee Reason:** This belongs in the code. A significant part of the population is serviced by this proposal where currently there is a void. Current technologies should be able to be readily adapted to meet the requirements of this proposal. The committee approved modifications are intended to provide more flexibility and options for manufacturers and for compliance.

#### **Assembly Action**

None



#### Final Hearing Results

G195-15

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## Code Change No: G197-15

#### **Original Proposal**

#### Section: 3004.2.2

Proponent: David Collins, representing The American Institute of Architects (dcollins@previewgroup.com)

#### **Revise as follows:**

3004.2.2 Escalators. Where provided in below-grade transportation stations, escalators shall have a clear width of not less than 32 inches (815 mm).

#### Exception: The clear width is not required in existing facilities undergoing alterations.

Reason: The exception to this section addresses requirements for escalators undergoing alterations. Such provisions should be in the IEBC, not the IBC.

#### Cost Impact: Will not increase the cost of construction

The exception to this section addresses requirements for escalators undergoing alterations. Such provisions should be in the IEBC, not the IBC.

> **Report of Committee Action** Hearings

#### **Committee Action:**

Committee Reason: This is appropriate for the IEBC and a corresponding/companion code change has been previously approved by the IEBC Committee.

#### Assembly Action

**Final Hearing Results** 

G197-15

AS

Back

#### **Approved as Submitted**

#### None

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## Code Change No: G201-15

#### **Original Proposal**

#### Section: 1020.1.1(IFC [BE] 1020.1.1) (New), 3006.2.1 (New)

**Proponent:** Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, ICC Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org)

#### Add new text as follows:

**1020.1.1(IFC [BE] 1020.1.1)** Hoistway opening protection Elevator hoistway openings shall be protected in accordance with Section 3006.2.1.

## **3006.2.1 Rated corridors.** Where corridors are required to be fire resistance rated in accordance with Section 1020.1, elevator hoistway openings shall be protected in accordance with Section 3006.3.

**Reason:** During the 2012 cycle the CTC submitted a code change FS88-12 to clarify that it was not the intent to require protection of a hoistway opening in rated corridors. Instead, the elevator lobby requirements themselves addressed this issue. That proposal was not approved. Based upon that disapproval, it appears that it is within the intent to require protection of elevator hoistway openings based upon the requirement for rated corridor construction. Therefore, this requirement needs to be specifically clarified within Section 3006 to avoid the requirement being missed. A new section 3006.2.1 has been written to clarify that intent. Also, to further clarify this intent a Section 1020.1.1 has been provided as a pointer to these specific lobby requirements. It should be noted that this requirement has limited application. The following summarizes the buildings not already addressed by Section 3006.2 that are required to have rated corridors.

#### Unsprinklered buildings:

Both conditions below apply to require hoistway opening protection:

- Group A, B, E, F, M, S and U occupancies with an occupant load served by a corridor greater than 30.
- Hoistways connecting only 3 stories.

Sprinklered buildings

Both conditions below apply to require hoistway opening protection:

Applicable Occupancies

o Group R greater than 10 served by corridor (.5 hr)

o Group H1, H-2, H-3 (1 hr)

o Group H4, H5 greater than 30 served by Corridor (1 hr)

Non High rise buildings

The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the Elevator Lobbies Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: http://www.iccsafe.org/cs/CTC/Pages/default.aspx.

#### Cost Impact: Will not increase the cost of construction

This will not increase the cost of construction depending upon how this issue is being interpreted. This item will only increase construction if it had not been interpreted to require protection of the hoistway opening in rated corridors. This would involve having to comply with Section 3006.3.

#### Report of Committee Action Hearings

#### **Committee Action:**

#### Approved as Submitted

**Committee Reason:** This proposed change provides much needed clarity by adding a rating requirement. Further modification in the Public Comment process may be beneficial.

#### **Assembly Action**

None



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## Code Change No: G202-15

Original Proposal

Section: 405.4.3, 708.1, 716.5.9.3, [F] 907.5.2.1 (IFC 907.5.2.1), 3006.4, 3007.6, 3007.6.1, 3007.6.3, 3007.9, 3007.9.1, 3008.6

**Proponent:** Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, ICC Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org)

#### Revise as follows:

**405.4.3 Elevators.** Where elevators are provided, each compartment shall have direct access to an elevator. Where an elevator serves more than one compartment, an <u>enclosed</u> elevator lobby shall be provided and shall be separated from each compartment by a *smoke barrier* in accordance with Section 709. Doors shall be gasketed, have a drop sill and be automatic-closing by smoke detection in accordance with Section 716.5.9.3.

708.1 General. The following wall assemblies shall comply with this section.

- 1. Separation walls as required by Section 420.2 for Groups I-1, R-1, R-2 and R-3.
- 2. Walls separating tenant spaces in *covered and open mall buildings* as required by Section 402.4.2.1.
- 3. Corridor walls as required by Section 1020.1.
- 4. Enclosed Elevator lobby separation as required by Section 3006.2.
- 5. Egress balconies as required by Section 1019.2

**716.5.9.3 Smoke-activated doors.** Automatic-closing doors installed in the following locations shall be automatic-closing by the actuation of smoke detectors installed in accordance with Section 907.3 or by loss of power to the smoke detector or hold-open device. Doors that are automatic-closing by smoke detection shall not have more than a 10-second delay before the door starts to close after the smoke detector is actuated:

- 1. Doors installed across a corridor.
- 2. Doors installed in the enclosures of *exit access stairways* and *ramps* in accordance with Sections 1019 and 1023, respectively.
- 3. Doors that protect openings in *exits* or *corridors* required to be of fire-resistance-rated construction.
- 4. Doors that protect openings in walls that are capable of resisting the passage of smoke in accordance with Section 509.4.
- 5. Doors installed in *smoke barriers* in accordance with Section 709.5.
- 6. Doors installed in *fire partitions* in accordance with Section 708.6.
- 7. Doors installed in a *fire wall* in accordance with Section 706.8.
- 8. Doors installed in shaft enclosures in accordance with Section 713.7.
- 9. Doors installed in waste and linen chutes, discharge openings and access and discharge rooms in accordance with Section 713.13. Loading doors installed in waste and linen chutes shall meet the requirements of Sections 716.5.9 and 716.5.9.1.1.
- 10. Doors installed in the walls for compartmentation of underground buildings in accordance with Section 405.4.2.
- 11. Doors installed in the <u>enclosed</u> elevator lobby walls of underground buildings in accordance with Section 405.4.3.
- 12. Doors installed in smoke partitions in accordance with Section 710.5.2.3.



**[F] 907.5.2.1 Audible alarms.** Audible alarm notification appliances shall be provided and emit a distinctive sound that is not to be used for any purpose other than that of a fire alarm.

#### **Exceptions:**

- 1. Audible alarm notification appliances are not required in critical care areas of Group I-2 Condition 2 occupancies that are in compliance with Section 907.2.6, Exception 2.
- A visible alarm notification appliance installed in a nurses' control station or other continuously attended staff location in a Group I-2 Condition 2 suite shall be an acceptable alternative to the installation of audible alarm notification appliances throughout the suite in Group I-2 Condition 2 occupancies that are in compliance with Section 907.2.6, Exception 2.
- 3. Where provided, audible notification appliances located in each <u>enclosed</u> occupant evacuation elevator lobby in accordance with Section 3008.9.1 shall be connected to a separate notification zone for manual paging only.

**3006.4 Means of egress.** Elevator lobbies shall be provided with at least one means of egress complying with Chapter 10 and other provisions in this code. Egress through an <u>enclosed</u> elevator lobby shall be permitted in accordance with Item 1 of Section 1016.2.

**3007.6 Fire service access elevator lobby.** The fire service access elevator shall open into <u>a an</u> <u>enclosed</u> fire service access elevator lobby in accordance with Sections 3007.6.1 through 3007.6.5. Egress is permitted through the <u>enclosed</u> elevator lobby in accordance with Item 1 of Section 1016.2.

**Exception:** Where a fire service access elevator has two entrances onto a floor, the second entrance shall be permitted to open into an elevator lobby be protected in accordance\_with Section 3006.3.

**3007.6.1** Access to interior exit stairway or ramp. The <u>enclosed</u> fire service access elevator lobby shall have direct access from the enclosed elevator lobby to an enclosure for an *interior exit* stairway or ramp.

**Exception:** Access to an *interior exit stairway* or *ramp* shall be permitted to be through a protected path of travel that has a level of fire protection not less than the elevator lobby enclosure. The protected path shall be separated from the enclosed elevator lobby through an opening protected by a smoke and draft control assembly in accordance Section 716.5.3.

**3007.6.3 Lobby doorways.** Other than doors to the hoistway, elevator control room or elevator control space, each doorway to <u>a an enclosed</u> fire service access elevator lobby shall be provided with a <sup>3</sup>/<sub>4</sub>-hour *fire door assembly* complying with Section 716.5. The *fire door assembly* shall comply with the smoke and draft control door assembly requirements of Section 716.5.3.1 with the UL 1784 test conducted without the artificial bottom seal.

**3007.9 Standpipe hose connection.** A Class I standpipe hose connection in accordance with Section 905 shall be provided in the *interior exit stairway* and *ramp* having direct access from the <u>enclosed</u> fire service access elevator lobby.

**3007.9.1 Access.** The *exit* enclosure containing the standpipe shall have access to the floor without passing through the <u>enclosed</u> fire service access elevator lobby.

**3008.6 Occupant evacuation elevator lobby.** Occupant evacuation elevators shall open into an <u>enclosed</u> elevator lobby in accordance with Sections 3008.6.1 through 3008.6.6. Egress is permitted through the elevator lobby in accordance with Item 1 of Section 1016.2.

**Reason:** This proposal is simply clarifying where elevator lobbies are intended to be enclosed. In some cases an elevator lobby is simply the area where the elevators open onto and no enclosure of the space is necessary. This does not necessarily mean the hoistway opening is not protected but instead that there is not a physical lobby enclosure. It should be noted that there are some sections such as Section 909.21.6 that are not necessarily intending to address whether such lobbies are enclosed or unenclosed.



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The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the Elevator Lobby Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: http://www.iccsafe.org/cs/CTC/Pages/default.aspx.

**Cost Impact:** Will not increase the cost of construction This is simply clarification of when elevator lobbies are enclosed.

Report of Committee Action						
Hearings						

#### **Committee Action:**

Committee Reason: The committee approved this proposal as it clarifies the intent of previous editions of the code.

Assembly	Action
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Final Hearing Results	ion			None
6202.15		Final Hearing Results		
G202-15 AS	G2	02-15	AS	

**Approved as Submitted** 

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## Code Change No: G203-15

#### Original Proposal

#### Section: 3007.1

**Proponent:** Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, ICC Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org)

#### **Revise as follows:**

**3007.1 General.** Where required by Section 403.6.1, every floor <u>above and including the lowest level of</u> <u>fire department vehicle access</u> of the building shall be served by fire service access elevators complying with Sections 3007.1 through 3007.9. Except as modified in this section, fire service access elevators shall be installed in accordance with this chapter and ASME A17.1/CSA B44.

**Exception:** Elevators that only service an open or enclosed parking garage and the lobby of the building shall not be required to serve as fire service access elevators in accordance with Section 3007.

**Reason:** There are two aspects that this proposal addresses. The first is that it was not the intention that FSAEs be available in the levels of the building below the lowest level of fire department access. Typically the fire department is more concerned with travelling high into the building and does not require that the same facilities be provided in the lower levels of the building. Most fire departments will likely not take an elevator below grade to a fire when the stairs are manageable. This will likely only affect buildings on steep grades where the lowest level of fire department access differs greatly from the main entrance. The second aspect addresses the issue that FSAEs are not necessary in parking garages. As noted the fire department is more likely to use FSAEs due to the height of the building. In addition, fire fighters typically are not willing to take an elevator past the fire floor. Instead in such cases they would prefer the use of the stairway.

The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the WTC Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: http://www.iccsafe.org/cs/CTC/Pages/default.aspx.

#### Cost Impact: Will not increase the cost of construction

This will save money by not requiring FSAE elevators from the garage and clarifying that it is only the portion of the building above the lowest level of fire department vehicle access that need these elevators.

<b>Report of Committee Action</b>	
Hearings	

#### **Committee Action:**

Approved as Submitted

**Committee Reason:** This proposal significantly clarifies the intent. However, the ability to move fire equiment between floors may also be a concern.



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## Code Change No: G204-15

#### **Original Proposal**

#### Section: 3007.3, 3008.3

**Proponent:** Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, ICC Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org)

#### Revise as follows:

**3007.3 Water protection.** An *approved* method to prevent water <u>Water from the operation of an</u> <u>automatic sprinkler system outside the enclosed lobby shall be prevented</u> from infiltrating into the hoistway enclosure from the operation of the *automatic sprinkler system* outside the enclosed fire service access elevator lobby shall be provided.in accordance with an approved method.

**3008.3 Water protection.** An *approved* method to prevent water-Water from the operation of an <u>automatic sprinkler system outside the enclosed lobby shall be prevented</u> from infiltrating into the hoistway enclosure from the operation of the *automatic sprinkler system* outside the enclosed occupant evacuation elevator lobby shall be provided.in accordance with an approved method.

**Reason:** As currently written it is often misinterpreted that water protection should be provided from sprinklers activating within the enclosed lobby itself. In fact, this provision is specifically looking only at sprinkler activation outside the lobby. If a sprinkler was activated within the lobby itself then there are larger concerns about the safety of the elevator operations. Also if sprinklers have activated within the lobby the lobby smoke detection would have also activated and recalled the elevators to the lobby. This section is not intended to include fire fighter hose stream.

The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the WTC Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: http://www.iccsafe.org/cs/CTC/Pages/default.aspx.

#### Cost Impact: Will not increase the cost of construction

This is merely a clarification.	It may be a savings i	f it was interpreted to	include the activation	of an automatic sprinkler	system within
the enclosed elevator lobby.					

Report of Committee Action	i
Hearings	

#### **Committee Action:**

Committee Reason: This is a necessary clarification to the code that addresses items that are commonly misinterpreted.

Assembly Action			None
	Final Hearin	g Results	
	G204-15	AS	

Approved as Submitted

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## Code Change No: G207-15

#### **Original Proposal**

#### Section: 3008.1, 3008.1.1 (New), 3008.8.1 (New)

**Proponent:** Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, ICC Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org)

#### **Revise as follows:**

**3008.1 General.** Where elevators are to be <u>Elevators</u> used for occupant self-evacuation during fires<del>, all passenger elevators for general public use</del> shall comply with Sections 3008.1 through 3008.10. Where other elevators are used for occupant self-evacuation, those elevators shall comply with these sections.

#### Add new text as follows:

3008.1.1 Number of occupant evacuation elevators. The number of elevators available for occupant evacuation shall be determined based on an egress analysis that addresses one of the following scenarios

- 1. <u>Full building evacuation where the analysis demonstrates that the number of elevators provided</u> for evacuation results in an evacuation time less than one hour.
- Evacuation of the 5 consecutive floors with the highest cumulative occupant load where the analysis demonstrates that the number of elevators provided for evacuation results in an evacuation time less than 15 minutes.

A minimum of one elevator in each bank shall be designated for occupant evacuation. Not less than two shall be provided in each occupant evacuation elevator lobby where more than one elevator opens into the lobby. Signage shall be provided to denote which elevators are available for occupant evacuation.

**3008.8.1 Determination of standby power load.** Standby power loads shall be based upon the determination of the number of occupant evacuation elevators in Section 3008.1.1.

**Reason:** The alternative to the 3rd stair in Section 403.5.2 is to use occupant evacuation elevators. This is a viable and more efficient option, but can require an excessive amount of standby power. As currently written, all passenger elevators must be used to comply with Section 3008 and Section 3008.8 would require 2 hours of standby power for every elevator simultaneously. In a building with many elevators, this becomes excessive and may be much more conservative than necessary where occupant loads are low. This proposal provides a more reasonable performance-based approach but while retaining the capacity to evacuate buildings more quickly than with stairs alone.

Two options are provided to determine the number of occupant evacuation elevators necessary to meet the performance intent. The first focuses upon full building evacuation. This does not mandate full building evacuation but instead is a benchmark to use for analysis. The use of 1 hour sets an upper limit on evacuation time and is based upon concerns during review of events such as the WTC bombing in 1993 that buildings should not take longer than an hour to evacuate. The 1 hour criterion is consistent with the upper limit that the elevator industry typically uses to determine the use of elevators during the busier times of the day within buildings during normal operation. It is also consistent with the basis for the current code language. The second option is more closely associated with a more typical phased evacuation. This 15 minute criterion intends to remove occupants from the area to which the fire department will respond. In reviewing a number resources the time of arrival of most fire departments in a typical city is likely around 4 minutes. This does not include time for set-up at the scene. NFPA 1710 specifically requires a 240 second arrival time to 90 percent of the incidents in a jurisdiction. Again this is only arrival time of the first due company. Several fire service officers have stated that an additional 10 minutes are needed to begin incident assessment, leading to the 15 minute criterion. Using the highest occupant load for 5 consecutive floors will provide a safety factor for the required number of occupant evacuation elevators.

In addition since the initial publication of occupant evacuation elevator requirements, ASME A17.1 has been updated and revised to address occupant evacuation elevators. This also includes the interface with the fire department features on elevators. Elevators can now be individually recalled by the fire department thus leaving more elevators available for evacuation if necessary.



ASME A17.1 also provides requirements for the prioritization of elevators during emergencies. This provides another level of rigor to the concept.

The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the WTC Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: http://www.iccsafe.org/cs/CTC/Pages/default.aspx.

**Bibliography:** Fire Master Plan, Olympia Washington, Chapter 4 Emergency response – response times - Chapter 4 Fire Master Plan Olympia, WA

NYC City wide fire report -2014. NYC response times NFPA 1710 – 2010

Cost Impact: Will not increase the cost of construction

This proposal will decrease the cost of construction as it will possibly reduce the number of elevators necessary for occupant evacuation and thus reduce the capacity necessary for standby power.

Report of Committee Action Hearings

#### **Committee Action:**

#### Approved as Submitted

**Committee Reason:** Where there are many elevators in a building, it should be possible to evaluate what the real need for emergency power requirements is.

The addition of the number of occupant self evacuation elevators is beneficial.

The committee recommends that the CTC or other parties submit public comments to: 1) Clarify Item 2 to give a start time for the 15 minute evacuation period; 2) Indicate the signage that is required, beyond what is already required; 3) Indicate the percentage of disabled occupants that should be assumed in the analysis.

Assembly Action			None
	Final Hearing	l Results	
	G207-15	AS	

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## Code Change No: G208-15

#### **Original Proposal**

#### Section: 3008.1, 3008.6.1

**Proponent:** Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, ICC Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org)

#### **Revise as follows:**

**3008.1 General.** Where elevators are to be used for occupant self-evacuation during fires, all passenger elevators for general public use shall comply with Sections 3008.1 through 3008.10. Where other elevators are used for occupant self-evacuation, those elevators shall comply with these sections.

**3008.6.1 Access to interior exit stairway or ramp.** The occupant evacuation elevator lobby shall have direct access from the enclosed elevator lobby to an *interior exit stairway* or *ramp*.

#### Exception Exceptions:

- 1. Access to an *interior exit stairway* or *ramp* shall be permitted to be through a protected path of travel that has a level of fire protection not less than the elevator lobby enclosure. The protected path shall be separated from the enclosed elevator lobby through an opening protected by a smoke and draft control assembly in accordance Section 716.5.3.
- 2. Elevators that only service an open parking garage and the lobby of the building shall not be required to provide direct access in accordance with this section.

**Reason:** Requiring occupant evacuation elevators to extend from a parking garages to the main lobby was not contemplated or intended to be addressed by the requirements for occupant evacuation elevators. Such elevators were intended to address portions of the building where height became an issue for evacuation. However it was felt that these elevators should still be available for occupant evacuation but the direct access requirement was felt to be overly restrictive for open parking garages. The direct access requirement often affects the location of the stairways and possibly leading to an additional stairway. There is an exception to Section 3008.6.1 if you provide protection to that stairway but in an open parking garage smoke accumulation is much less due to the open nature of the structure. The additional construction required to create that protected path would serve little benefit. The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the WTC Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: http://www.iccsafe.org/cs/CTC/Pages/default.aspx.

#### Cost Impact: Will not increase the cost of construction

Will decrease the cost of construction. This will simplify the location of the stairway. This exception eliminates the need for an additional stairway or of the creation of a protected path from the occupancy evacuation elevator lobby to the stairway.

<b>Report of Committee Action</b>	
Hearings	

#### **Committee Action:**

**Committee Reason:** It is a big challenge dealing with garages and open parking structures and this proposal helps. Open parking structures in particular are very low hazard.

-	Final Hearing	g Results	
	G208-15	AS	



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Approved as Submitted

## Code Change No: FS51-15

#### **Original Proposal**

#### Section: 713.13, 713.14, 3002.1

Proponent: Lee Kranz, City of Bellevue, WA, representing Lee Kranz

#### **Revise as follows:**

**713.13 Waste and linen chutes and incinerator rooms.** Waste and linen chutes shall comply with the provisions of NFPA 82, Chapter 5 and shall meet the requirements of Sections <u>712 and</u> 713.13.1 through 713.13.6. Incinerator rooms shall meet the provisions of Sections 713.13.4 through 713.13.5.

Exception: Chutes serving and contained within a single dwelling unit.

**713.14 Elevator, dumbwaiter and other hoistways.** Elevator, dumbwaiter and other hoistway enclosures shall be constructed in accordance with <u>Section Sections 712</u>, 713 and Chapter 30.

**3002.1 Hoistway enclosure protection.** Elevator, dumbwaiter and other hoistway enclosures shall be *shaft enclosures* complying with Section-Sections 712 and 713.

**Reason:** The proposed references in Sections 713.13, 713.14 and 3002.1 to Section 712 are necessary to permit the use of the exceptions contained in Section 712 for shaft construction. By referencing only Section 713 from these sections it could be misunderstood that the exceptions of Section 712 are not applicable for waste and linen chutes and incinerator rooms of Section 713.13, for elevator, dumbwaiter and other hoistways of Section 713.14, or for hoistway enclosures of Section 3002.1. Section 712 is where the exceptions for shaft enclosures were relocated in the 2012 IBC and the reference to that section from Sections 713.13, 713.14 and 3002.1 were overlooked for the 2015 code.

#### Cost Impact: Will not increase the cost of construction

This change will have no bearing on the cost of construction for shafts because it permits the use of the exceptions contained in Section 712.

Report of Committee Action Hearings

**Committee Action:** 

**Committee Reason:** The committee agreed that reference to Section 712 at these locations is necessary to permit the use of the exceptions contained in Section 712 for shaft construction.

**Assembly Action:** 

INTERNATIONAL CODE COUNCIL®

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Back

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Approved as Submitted

None

## Code Change No: FS74-15

#### **Original Proposal**

Section: 1023.3.1, 3007.6.3, 3008.6.3, 3008.6.3.1, 402.8.6.1, 405.4.2, 405.4.3, 407.3.1, 408.3.8, 410.3.5, 510.2, 705.8.2, 706.8, 3104.10, 722.2.4.4, 909.20.3.1, 909.20.3.2

**Proponent:** John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

#### **Revise as follows:**

**402.8.6.1 Exit passageways.** Where *exit passageways* provide a secondary *means of egress* from a tenant space, doorways to the *exit passageway* shall be protected by 1-hour *fire door assemblies* that <u>comply with Section 716 and</u> are self- or automatic-closing by smoke detection in accordance with Section 716.5.9.3.

**405.4.2 Smoke barrier penetration.** The compartments shall be separated from each other by a *smoke barrier* in accordance with Section 709. Penetrations between the two compartments shall be limited to plumbing and electrical piping and conduit that are firestopped in accordance with Section 714. Doorways shall be protected by *fire door assemblies <u>that comply with Section 716 and shall be that are automatic-closing by smoke detection in accordance with Section 716.5.9.3 and are installed in accordance with NFPA 105 and Section 716.5.3. Where provided, each compartment shall have an air supply and an exhaust system independent of the other compartments.*</u>

**405.4.3 Elevators.** Where elevators are provided, each compartment shall have direct access to an elevator. Where an elevator serves more than one compartment, an elevator lobby shall be provided and shall be separated from each compartment by a *smoke barrier* in accordance with Section 709. Doors Doorways in the smoke barrier shall be gasketed protected by fire door assemblies that comply with Section 716, have a drop sill shall comply with the smoke and draft control assembly requirements of Section 716.5.3 with the UL 1784 test conducted without an artificial bottom seal, and shall be automatic-closing by smoke detection in accordance with Section 716.5.9.3.

**407.3.1 Corridor doors.** *Corridor* doors, other than those in a wall required to be rated by Section 509.4 or for the enclosure of a vertical opening or an *exit*, shall not have a required *fire protection rating* and shall not be required to be equipped with *self-closing* or automatic-closing devices, but shall provide an effective barrier to limit the transfer of smoke and shall be equipped with positive latching. Roller latches are not permitted. Other doors shall conform to Section 716.5-716.

**408.3.8 Interior exit stairway and ramp construction.** One *interior exit stairway* or *ramp* in each building shall be permitted to have glazing installed in doors and interior walls at each landing level providing access to the *interior exit stairway or ramp*, provided that the following conditions are met:

- 1. The *interior exit stairway or ramp* shall not serve more than four floor levels.
- 2. Exit doors shall be not less than 3/4 -hour fire door assemblies complying with Section 716.5716
- 3. The total area of glazing at each floor level shall not exceed 5,000 square inches (3.2 m<sup>2</sup>) and individual panels of glazing shall not exceed 1,296 square inches (0.84 m<sup>2</sup>).
- 4. The glazing shall be protected on both sides by an *automatic sprinkler system*. The sprinkler system shall be designed to wet completely the entire surface of any glazing affected by fire when actuated.
- 5. The glazing shall be in a gasketed frame and installed in such a manner that the framing system will deflect without breaking (loading) the glass before the sprinkler system operates.



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**410.3.5 Proscenium curtain.** Where a proscenium wall is required to have a *fire-resistance rating*, the *stage* opening shall be provided with a fire curtain complying with NFPA 80, horizontal sliding doors complying with Section <u>716.5.2716</u> having a fire protection rating of at least 1 hour, or an *approved* water curtain complying with Section 903.3.1.1 or, in facilities not utilizing the provisions of smoke-protected assembly seating in accordance with Section 1029.6.2, a smoke control system complying with Section 909 or natural *ventilation* designed to maintain the smoke level not less than 6 feet (1829 mm) above the floor of the *means of egress*.

**510.2 Horizontal building separation allowance.** A building shall be considered as separate and distinct buildings for the purpose of determining area limitations, continuity of *fire walls*, limitation of number of *stories* and type of construction where all of the following conditions are met:

- 1. The buildings are separated with a *horizontal assembly* having a *fire-resistance rating* of not less than 3 hours.
- 2. The building below the *horizontal assembly* is of Type IA construction.
- 3. Shaft, stairway, ramp and escalator enclosures through the horizontal assembly shall have not less than a 2-hour fire-resistance rating with opening protectives in accordance with Section 716.5-716.

**Exception:** Where the enclosure walls below the *horizontal assembly* have not less than a 3-hour *fire-resistance rating* with opening protectives in accordance with Section <u>716.5716</u>, the enclosure walls extending above the *horizontal assembly* shall be permitted to have a 1-hour *fire-resistance rating*, provided:

- 1. The building above the *horizontal assembly* is not required to be of Type I construction;
- 2. The enclosure connects fewer than four stories; and
- 3. The enclosure opening protectives above the *horizontal assembly* have a *fire protection rating* of not less than 1 hour.
- 4. The building or buildings above the *horizontal assembly* shall be permitted to have multiple Group A occupancy uses, each with an *occupant load* of less 300, or Group B, M, R or S occupancies.
- 5. The building below the *horizontal assembly* shall be protected throughout by an *approved automatic sprinkler system* in accordance with Section 903.3.1.1, and shall be permitted to be any occupancy allowed by this code except Group H.
- 6. The maximum *building height* in feet (mm) shall not exceed the limits set forth in Section 504.3 for the building having the smaller allowable height as measured from the *grade plane*.

**705.8.2 Protected openings.** Where openings are required to be protected, *fire doors* and fire shutters <u>opening protectives</u> shall comply with Section <del>716.5</del> and *fire window assemblies* shall comply with <u>Section 716.6 716</u>.

**Exception:** Opening protectives are not required where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 and the exterior openings are protected by a water curtain using automatic sprinklers *approved* for that use.

**706.8 Openings.** Each opening through a *fire wall* shall be protected in accordance with Section  $\frac{716.5}{716}$  and shall not exceed 156 square feet (15 m<sup>2</sup>). The aggregate width of openings at any floor level shall not exceed 25 percent of the length of the wall.

#### **Exceptions:**

1. Openings are not permitted in party walls constructed in accordance with Section 706.1.1.

2. Openings shall not be limited to 156 square feet (15 m<sup>2</sup>) where both buildings are equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.

**722.2.4.4 Columns built into walls.** The minimum dimensions of Table 722.2.4 do not apply to a reinforced concrete column that is built into a concrete or masonry wall provided all of the following are met:

- 1. The *fire-resistance rating* for the wall is equal to or greater than the required rating of the column;
- 2. The main longitudinal reinforcing in the column has cover not less than that required by Section 722.2.4.2; and
- 3. Openings in the wall are protected in accordance with Table 716.5 Section 716.

Where openings in the wall are not protected as required by Section 716.5716, the minimum dimension of columns required to have a *fire-resistance rating* of 3 hours or less shall be 8 inches (203 mm), and 10 inches (254 mm) for columns required to have a *fire-resistance rating* of 4 hours, regardless of the type of aggregate used in the concrete.

909.20.3.1 Balcony doors. Where access to the *stairway* or *ramp* is by way of an open exterior balcony, the door assembly into the enclosure shall be a *fire door assembly* in accordance with Section 716.5-716.

**909.20.3.2 Vestibule doors.** Where access to the *stairway* or *ramp* is by way of a vestibule, the door assembly into the vestibule shall be a *fire doorassembly* complying with Section <del>716.5</del><u>716</u>. The door assembly from the vestibule to the *stairway* shall have not less than a 20-minute *fire protection rating* complying with Section <u>716.5</u><u>716</u>.

#### Add new text as follows:

**1023.3.1 Extension.** Where *interior exit stairways* and *ramps* are extended to an *exit discharge* or a *public way* by an *exit passageway*, the *interior exit stairway* and *ramp* shall be separated from the *exit passageway* by a *fire barrier* constructed in accordance with Section 707 or a *horizontal assembly* constructed in accordance with Section 711, or both. The *fire-resistance rating* shall be not less than that required for the *interior exit stairway* and *ramp*. A *fire door* assembly complying with Section 716 shall be installed in the fire barrier to provide a *means of egress* from the *interior exit stairway* and *ramp* to the *exit passageway*. Openings in the *fire barrier* other than the *fire door* assembly are prohibited. Penetrations of the *fire barrier* are prohibited.

#### Exceptions:

- 1. Penetrations of the *fire barrier* in accordance with Section 1023.5 shall be permitted.
- 2. Separation between an *interior exit stairway* or *ramp* and the *exit passageway* extension shall not be required where there are no openings into the *exit passageway* extension.

#### **Revise as follows:**

**3008.6.3 Lobby doorways.** Other than the doors to the hoistway, elevator machine rooms, machinery spaces, control rooms and control spaces within the lobby enclosure smoke barrier, each doorway to an occupant evacuation elevator lobby shall be provided with a <sup>3</sup>/<sub>4</sub>-hour *fire door assembly* complying with Section <del>716.5</del><u>716</u>. The *fire door assembly* shall comply with the smoke and draft control assembly requirements of Section 716.5.3.1, and tested in accordance with the UL 1784 test conducted\_without the an artificial bottom seal.

**3008.6.3.1 Vision panel.** A vision panel shall be installed in each *fire door assembly* protecting the lobby doorway. The vision panel shall consist of fire-protection-rated glazing and shall <u>comply with the</u> <u>requirements of Section 716 and shall</u> be located to furnish clear vision of the occupant evacuation elevator lobby.



**3007.6.3 Lobby doorways.** Other than doors to the hoistway, elevator control room or elevator control space, each doorway to a fire service access elevator lobby shall be provided with a <sup>3</sup>/<sub>4</sub>-hour *fire door assembly* complying with Section <del>716.5</del><u>716</u>. The *fire door assembly* shall comply with the smoke and draft control door assembly requirements of Section 716.5.3.1, and tested in accordance with the UL 1784 test conducted without the an artificial bottom seal.

**3104.10 Tunneled walkway.** Separation between the tunneled walkway and the building to which it is connected shall be not less than 2-hour fire-resistant construction and openings therein shall be protected in accordance with Table 716.5. Section 716.

Reason: This proposal is an effort to review all I-Code references that "point" IBC Section 716 and its subsections.

In many locations, the references to a subsection of IBC 716 many need only an editorial update to the new location of the references requirements based on the reorganized text.

In other locations, it seems appropriate to clarify and / slightly revise the text and the reference.

These proposed revisions may, in some cases, be considered technical revisions. But, the goal of the proposed revisions is to be consistent with what is understood to be the intent of the code.

Cost Impact: Will not increase the cost of construction

There should be no cost increase, if the proposed revisions are consistent with the intent of the code.

Report of Committee Action Hearings

#### **Committee Action:**

#### Approved as Submitted

None

**Committee Reason:** The committee agreed that the correlation of references provided for more effective application and enforcement of the provisions.

**Assembly Action:** 

Final Hearing Results

FS74-15

AS



## Code Change No: G223-15

#### **Original Proposal**

Section(s): 107.2.7 (New), 202 (New), 3101.1, 3112 (New), 3112.1 (New), 3112.1.1 (New), 3112.2 (New), 3112.3 (New), 3112.4 (New)

**Proponent:** Edward Kulik, representing Building Code Action Committee (bcac@iccsafe.org)

Add new text as follows:

**107.2.7** <u>Relocatable buildings.</u> Construction documents for relocatable buildings shall comply with this section and Section 3112.

Add new definition as follows:

**RELOCTABLE BUILDING.** A partially or completely assembled building constructed and designed to be reused multiple times and transported to different building sites.

**Revise as follows:** 

**<u>3101.1 Scope.</u>** The provisions of this chapter shall govern special building construction including membrane structures, temporary structures, *pedestrian walkways* and tunnels, automatic *vehicular gates, awnings* and *canopies, marquees*, signs, and towers, antennas, and antennas-relocatable buildings.

Add new text as follows:

#### SECTION 3112 RELOCATABLE BUILDINGS

<u>3112.1</u> <u>General.</u> The provisions of this section shall apply to relocatable buildings. Relocatable buildings manufactured after the effective date of this code shall comply with the applicable provisions of this code.

<u>3112.1.1</u> <u>Compliance.</u> A newly constructed relocatable building shall comply with this code for new construction. An existing relocatable building that is undergoing alteration, addition, change of occupancy or relocation shall comply with Chapter 13 of the *International Existing Buildings Code*.

<u>3112.2</u> <u>Supplemental information.</u> <u>Supplemental information specific to a relocatable building shall be</u> submitted to the authority having jurisdiction. It shall, as a minimum, include all of the following in addition to the information required by Section 105.

- 1. Manufacturer's name and address.
- 2. Date of manufacture.
- 3. Serial number of module.
- 4. Manufacturer's design drawings.
- 5. Type of construction in accordance with Section 602.
- 6. Design loads including: roof live load, roof snow load, floor live load, wind load and seismic site class, use group and design category.
- 7. Additional building planning and structural design data.
- 8. Site built structure or appurtenance attached to the relocatable building.



## <u>3112.3</u> <u>Manufacturer's data plate.</u> Each relocatable module shall have a data plate that is permanently attached on or adjacent to the electrical panel, and shall include the following information:

- 1. Occupancy group.
- 2. Manufacturer's name and address.
- 3. Date of manufacture.
- 4. Serial number of module.
- 5. Design roof live load, design floor live load, snow load, wind and seismic design.
- 6. Approved quality assurance agency or approved inspection agency.
- 7. Codes, and standards of construction.
- 8. Envelope thermal resistance values.
- 9. Electrical service size.
- 10. Fuel burning equipment and size.
- 11. Special limitations if any.

# <u>3112.4</u> Inspection agencies. The building official is authorized to accept reports of inspections conducted by approved inspection agencies during off-site construction of the relocatable building, and to satisfy the applicable requirements of Sections 110.3 through 110.3.10.1.

**Reason:** In July/2014 the ICC Board decided to sunset the activities of the Code Technology Committee (CTC). This is being accomplished by re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). This proposal falls under the CTC Area of Study entitled Relocatable Modular Buildings. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website.

This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

Unlike site-built buildings, which are typically intended to remain on their original site for the life of the building, relocatable modular buildings are designed and intended for relocation, reuse and/or repurposing. Many states have statutes that govern the building and relocating of relocatable modular buildings. For those that do not have state mandated requirements, much confusion and inconsistency exists about the requirements for relocatable modular buildings as existing buildings.

The Modular Building Institute (MBI) ( www.modular.org) estimates that there are over 600,000 code compliant relocatable buildings in use in North America today. While it is impossible to determine the exact amount owned by the public at large, MBI estimates that public school districts across North America collectively own and operate about 180,000 relocatable classrooms with the industry owning and leasing an additional 120,000. Additionally, the industry owns and leases approximately 280,000 relocatable buildings for various other business occupancies, including construction site offices and temporary sales offices. Unique characteristics of relocatable modular buildings that are unlike site-built buildings include:

• There are sections of the IBC that are applicable equally to both site-built and relocatable modular buildings, particularly for new construction.

• There are sections of the conflicting code sections that cannot be applied to both site-built and relocatable modular buildings, specifically related to construction documents, inspection, and relocation.

The IBC does not have specific requirements on how to treat these buildings. In the absence of clear definitions and requirements that are specific to both new and existing relocatable modular buildings, many code officials attempt to apply similar, but non-related sections of the building code intended for site built buildings to the relocatable modular industry. There are unique attributes to relocatable modular buildings that warrant their own requirements in a new chapter in this code.

Two proposals have been submitted on the subject of relocatable modular buildings. One proposal for new construction (this proposal) and a second proposal to address the relocation of modular buildings (proposal to the IEBC). This proposal includes:

• The definition has been reproduced from the definition that was added to the 2015 IEBC last cycle.

• Identification and inclusion of relocatables into Special Construction, Chapter 31. This chapter applies to new relocatable buildings, and also new site built structures.

Moving this document forward through the ICC code development process will help the modular building industry comply with the intent of the code, provide a clear and consistent path for enforcement professionals, and for compliance by owners of relocatable buildings who wish to re-use or repurpose their existing buildings.

#### Cost Impact: Will not increase the cost of construction

This code change proposal will not increase the cost of construction due to the re-usable/relocatable nature of such buildings.



#### Report of Committee Action Hearings

#### **Committee Action:**

#### Approved as Submitted

**Committee Reason:** This is consistent and needed given what was just approved regarding relocatable buildings for the International Existing Building Code. The Commonwealth of Virginia has a program that is very similar to this and it works. Guidance in the code for this welcome. We have had difficulty approving relocatable buildings and this would help significantly. We need to know what information should be required for approval for these types of structures.

#### **Assembly Action:**

None

Public Comments

#### Public Comment 1:

Vickie Lovell, InterCode Incorporated, representing Modular Building Institute (vickie@intercodeinc.com) requests Approve as Modified by this Public Comment.

Modify as follows:

107.2.7 Relocatable buildings. Construction documents for relocatable buildings shall comply with this section and Section 3112.

Exception: Manufactured housing used as dwellings.

**3112.1 General.** The provisions of this section shall apply to relocatable buildings. Relocatable buildings manufactured after the effective date of this code shall comply with the applicable provisions of this code.

Exception:-This section shall not apply to manufactured housing used as dwellings.

**Commenter's Reason:** The committee correctly identified a possible misinterpretation of this section that is specific to relocatable structures used for commercial purposes that are designed to be moved. This section should not be confused with or applied to transportable manufactured housing that is identified in Appendix E of the IRC or NFPA 501. The manufacture, use, and transport of those units are governed by other regulatory documents, including federal, state and/or local requirements.

#### Cost Impact: Will not increase the cost of construction.

There is no cost impact since it is a clarification as to what types of structures are applicable to this section. The IRC addresses manufactured housing used as dwellings.

Final Hearing Results

G223-15

AMPC1



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## Code Change No: G12-16

#### **Original Proposal**

#### Section: 202

**Proponent:** Gregory Wilson, Federal Emergency Management Agency (gregory.wilson2@fema.dhs.gov); Rebecca Quinn (rcquinn@earthlink.net)

## THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

#### Revise as follows:

**[BS] LOWEST FLOOR.** The <u>lowest</u> floor of the lowest enclosed area, including *basement*, but excluding any unfinished or floodresistant enclosure, usable solely for vehicle parking, building access or limited storage provided that such enclosure is not built so as to render the structure in violation of Section 1612.

**Reason:** This proposal is editorial. It will make this definition consistent with the change to 2015 IRC R322.1.5 that was Approved as Submitted (RB182-13) to ensure consistency with the definition of the National Flood Insurance Program.

**Cost Impact:** Will not increase the cost of construction Modifying the definition does not change how the term is used or the requirements applicable to the term.

Report of Committee Action	
Hearings	

#### **Committee Action:**

#### Approved as Submitted

**Committee Reason:** Committee's approval is based on this change to the definition of "lowest floor" providing consistency with requirements of the National Flood Insurance Program.

#### Assembly Action

None

Final Action Results

G12-16

AS



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## 2018 IBC (General) Overlapping Provisions

## G133-15

Table 1006.2.1 Space with one exist or exit access doorway. Revise as follow:

Change the "Maximum occupant load of space" for both "R-2" and "R-3" from "10" to "49".

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)	WITH SPRINKLER SYSTEM
A, E, F-1, M, R, <mark>S-</mark>	200	250 <sup>b</sup>
<u>S-1</u>	<u>200</u>	<u>400<sup>b</sup></u>

No change to the remaining text within the table and footnotes

## G137-15

#### 505.2.1 Area limitation. (No Change)

#### **Exceptions:**

- 1.-2. (No Change)
- 3. In sprinklered Group S2 occupancies of Type III construction, the enclosed and unenclosed areas under mezzanines shall be allowed to be included when calculating the permissible size of mezzanines.

#### G138-15

#### 505.2.1 Area limitation. (No Change)

#### **Exceptions:**

- 1.-2. (No Change)
- 3. In sprinklered Group S2 occupancies of Type III construction, the enclosed and unenclosed areas under mezzanines shall be allowed to be included when calculating the permissible size of mezzanines.

## **G202-15** Back

**3007.6 Fire service access elevator lobby.** The fire service access elevator shall open into a fire service access elevator lobby in accordance with Sections 3007.6.1 through 3007.6.5. Egress is permitted through the elevator lobby in accordance with Item 1 if Section 1016.2. **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 3007.6.1.
- 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.

**3007.9.1** Access. The *exit* enclosure containing the standpipe shall have access to the floor without passing through the fire service access elevator lobby.

Exception: Group R1 and R2 occupancy buildings. 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.

## G220-15

## <u>3105.3.4.1</u>

Fabric used for awnings or fabric-covered frames shall meet the flame propagation performance criteria of NFPA 701 or have a flame spread index not greater than 25 when tested in accordance with ASTM E 84 or UL 723.

Exception: Awnings or fabric-covered frames used in conjunction with Group R-3 occupancies.

#### <u>3105.3.4.2</u>

# Supports for fabric awnings and fabric-covered frame shall be of metal or similar durable material.

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#### SECTION 458 MANUFACTURED BUILDINGS

#### Change Section 458.1 to read as shown:

**458.1 General.** The following administrative requirements for inspection and plan review apply to manufactured buildings including factory-built schools. Additional technical requirements for factory-built schools can be found in Section 453.

Note: See Department of Business and Professional Regulation Rule 61-41 9B-1, *Florida* Administrative Code and Chapter 553, *Florida Statutes*.

#### G32-16

## TABLE 1604.5RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES

RISK CATEGORY	NATURE OF OCCUPANCY
	Buildings and other structures that represent a low hazard to human life in the event of failure, including but not limited to: • Agricultural facilities.
I	<ul> <li>Certain temporary facilities.</li> </ul>
	<ul> <li>Minor storage facilities.</li> <li>Screen enclosures.</li> </ul>
II	Buildings and other structures except those listed in Risk Categories I, III and IV
	Buildings and other structures that represent a substantial hazard to human life in the event of failure, including but not limited to:
111	<ul> <li>Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300.</li> </ul>
	<ul> <li>Buildings and other structures containing Group E occupancies with an occupant load greater than 250.</li> </ul>
	<ul> <li>Buildings and other structures containing educational occupancies for</li> </ul>

	students above he 12 <sup>th</sup> grade with an occupant load greater than 500.
	<ul> <li>Group I-2 occupancies with an occupant load of 50 or more resident care recipients but not having surgery or emergency treatment facilities.</li> </ul>
	• Group I-3 occupancies.
	<ul> <li>Any other occupancy with an occupant load greater than 5,000a.</li> </ul>
	<ul> <li>Power-generating stations, water treatment facilities for potable water, waste water treatment facilities and other public utility facilities not included in Risk Category IV.</li> </ul>
	<ul> <li>Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that:</li> </ul>
	Exceed maximum allowable quantities per control area as given in Table 307.1(1) or 307.1(2) or per outdoor control area in accordance with the <i>International <u>Florida</u> Fire <u>Prevention</u> Code</i> ; and
	Are sufficient to pose a threat to the public if releasedb.
	Buildings and other structures designated as essential facilities, including but not limited to:
	<ul> <li>Group I-2 occupancies having surgery or emergency treatment facilities.</li> </ul>
	<ul> <li>Fire, rescue, ambulance and police stations and emergency vehicle garages.</li> </ul>
	<ul> <li>Designated earthquake, hurricane or other emergency shelters.</li> </ul>
IV	<ul> <li>Designated emergency preparedness, communications and operations centers and other facilities required for emergency response.</li> </ul>
	<ul> <li>Power-generating stations and other public utility facilities required as emergency backup facilities for Risk Category IV structures.</li> </ul>
	<ul> <li>Buildings and other structures containing quantities of highly toxic materials that:</li> </ul>
	Exceed maximum allowable quantities per control area as given in Table 307.1(2) or per outdoor control area in accordance with the <i>International Florida Fire <u>Prevention</u> Code</i> ; and
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Are sufficient to pose a threat to the public if releasedb.
<ul> <li>Aviation control towers, air traffic control centers and emergency aircraft hangars.</li> </ul>
<ul> <li>Buildings and other structures having critical national defense functions.</li> </ul>
• Water storage facilities and pump structures required to maintain water pressure for fire suppression.

a. For purposes of occupant load calculation, occupancies required by Table 1004.1.2 to use gross floor area calculations shall be permitted to use net floor areas to determine the total occupant load.

b. Where approved by the building official, the classification of buildings and other structures as Risk Category III or IV based on their quantities of toxic, highly toxic or explosive materials is permitted to be reduced to Risk Category II, provided it can be demonstrated by a hazard assessment in accordance with Section 1.5.3 of ASCE 7 that a release of the toxic, highly toxic or explosive materials is not sufficient to pose a threat to the public.