### Adhoc Health Committee Report – Means of Egress Group A changes:

There are 4 areas of study currently listed under Adhoc .

- 1. Fire/Fire Safety
- 2. General
- 3. Means of Egress
- 4. Occupancy

Following are code change proposals submitted through Adhoc Health from MOE study group.

		()	Position			on		
Code Change #	Section	Adhoc (x) or Related (	Oppose & Testify	oppose	No Position	Support	Support & Testify	Comments
E022	1006.1	0						
E023	1006.1	0						
E024	1006.1	0						
E025	1006.1.1	x						
E026	1006.2	0						
E027	1006.2	x						
E028	1006.2	0						
E029	1006.2	0						
E030	1006.2	0						
E031	1006.2	0						
E032	1006.2.1	0						
E033	1006.2.1	х						
E034	1006.3	0						
E067	1008.1.9.6	х						
E068	1008.1.9.6	0						
E069	1008.1.9.6	х						
E070	1008.1.9.7	х						
E071	1008.1.9.7	0						
E072	1008.1.9.7	x						
E074	1008.1.9.7	x						
E075	1008.1.9.7	0						
E076	1008.1.9.7	0						
E078	1008.1.9.8	х						

### **Means of Egress**

E079	1008.1.9.8	0				
E081	1008.1.9.9	х				
E082	1008.1.9.9	х				
E083	1008.1.9.9	0				
E103	1011.6.3	х				
E118	1017.3	0			Aisles	
E119	1017.3	x			Aisles	
E120	1017.5	0			Related to E119 and E120	
E122	1018.2	x				
E123	1018.2	0				
E125	1018.6	0				
E149	1024.5	0				
E151	1025.1	0				
E152	1025.4	0				
E179	1104.3	x			Hospital doors	
E199	1109.2	х				
G033	308	0			Lockups in other than I-3	
G058	404.9	0			Exit access travel distance in atrium	
G065	407.2.5	0				
G067	407.3	0				
G069	407.4.1	0				
G070	407.4.2	х				
G072	407.4.3.5	0				
G074	407.4.3.2	0				
G075	407.4.3.6.1	0				
G174	3007.7	0				
G219	3404.7	х				

# E22 – 12 1006.1 (IFC [B] 1006.1)

Proponent: Walter Vernon, representing Mazzetti Nash Lipsey Burch (walterv@mazzetti.com)

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

**1006.1 (IFC [B] 1006.1) Illumination required.** The means of egress, including the exit discharge, shall be <u>automatically controlled</u>, or illuminated at all times the building space served by the means of egress is occupied. Where automatic controls are provided, the automatic control system shall fail in the on position and loss of power within the space shall energize the egress lighting.

#### Exceptions:

- 1. Occupancies in Group U.
- 2. Aisle accessways in Group A.
- 3. Dwelling units and sleeping units in Groups R-1, R-2 and R-3.
- 4. Sleeping units of Group I occupancies.

**Reason:** There are two reasons for this proposed change.

1. To reduce the energy used, illuminating unoccupied areas within an occupied space

2. Ensure the lamps of the egress fixtures operate for the same duration as the non-egress fixtures, so eliminating the need to replace lamps in the same fixture or area at different times

E22-12				
Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				1006.1-E-Vernon.doc

# E23 – 12 1006.1 (IFC [B] 1006.1)

**Proponents:** Jack Bailey, One Lux Studio, representing The International Association of Lighting Designers (jbailey@oneluxstudio.com)

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

**1006.1 (IFC [B] 1006.1) Illumination required.** The means of egress, including the exit discharge, shall be illuminated by either daylight or artificial light at all times the building space served by the means of egress is occupied. Lighting controls in the means of egress shall be configured so that the failure of any single lighting control device cannot leave any room, or any landing in a stairway, in complete darkness.

#### **Exceptions:**

- 1. Occupancies in Group U.
- 2. Aisle accessways in Group A.
- 3. Dwelling units and sleeping units in Groups R-1, R-2 and R-3.
- 4. Sleeping units of Group I occupancies.

**Reason:** Many designers and building code officials do not know if the code allows interior lighting to be turned off when sufficient daylight is present in the means of egress to allow for a safe and orderly evacuation of the building. However, most assume that lighting for the exterior means of egress can be turned off when sufficient daylight is present, and in fact exterior lighting is usually turned off during the day.

Because of this confusion it is quite common to see emergency lights burning continuously in daylighted interior spaces where adjacent non-emergency lights have been shut off by automatic controls to conserve energy.

There is no reason why the use of automatic controls should make it less likely that sufficient illumination is present for emergency egress, as long as control systems are designed to eliminate any single point of failure. The proposed language, "so that the failure of any single lighting control device cannot leave any room, or any landing in a stairway, in complete darkness" is similar to the language in NFPA 70 (700.16): "Emergency lighting systems shall be designed and installed so that the failure of any individual lighting element, such as the burning out of a lamp, cannot leave in total darkness any space that requires emergency illumination."

As currently written, the code requires the lighting system to perform as described, but does not detail how this should occur. The use of automatic controls will not change this paradigm: building code officials and fire marshals will still inspect emergency lighting systems in buildings, and if these systems do not perform as required for **any** reason (power system or battery failure, burned out light bulb, bad ballast, improper wiring, or failed daylight sensor) they will require that the defect be fixed. And it is easy to verify that daylight sensor controls are functioning properly during daytime inspections: cover the photosensor, and see if the lights turn on.

Daylight sensor controls will eventually fail and need to be replaced, but their failure rate is about the same as the failure rate for ballasts, lower than the failure rate of battery packs, and much lower than the failure rate for lamps. In fact, by keeping lights off much of the time during the day the required maintenance for lamps and ballasts will be dramatically reduced, making it easier to keep the overall means of egress lighting system in working order.

E23-12					
Public Hearing: Co	ommittee:	AS	AM	D	
As	ssembly:	ASF	AMF	DF	
					1006.1 #2-E-Bailey.doc

### E24 – 12 1006.1, 1024.5 (IFC [B] 1006.1, 1024.5)

**Proponents:** Jack Bailey, One Lux Studio, representing The International Association of Lighting Designers (jbailey@oneluxstudio.com)

#### Revise as follows:

**1006.1 (IFC [B] 1006.1) Illumination required.** The *means of egress*, including the *exit discharge*, shall be illuminated at all times the building space served by the *means of egress* is occupied.

#### **Exceptions:**

- 1. Occupancies in Group U.
- 2. Aisle accessways in Group A.
- 3. Dwelling units and sleeping units in Groups R-1, R-2 and R-3.
- 4. Sleeping units of Group I occupancies.
- 5. Where occupant sensor controls are provided in the means of egress which automatically turn lights on when any occupant movement is sensed in the area served by those lights, and which keep those lights on for at least 15 minutes after the occupant motion ceases.

**1024.5 (IFC [B] 1024.5) Illumination.** Where *photoluminescent* exit path markings are installed, they shall be provided with the minimum *means of egress* illumination required by Section 1006 for at least 60 minutes prior to periods when the building is occupied, and continuously during building occupancy.

Reason: A lot of energy is wasted lighting unoccupied means of egress.

In practice, the code is usually interpreted to mean that interior lights providing illumination in the means of egress cannot ever be turned off. We believe that the code should specifically allow the use of occupant sensors to control these lights.

There is precedent for this in NFPA 101 (2012), Section 7.8.1.2.2 which specifically allows the use of occupant sensor controls, but which provides a list of requirements for those sensors which no products currently on the market comply with.

There is no reason why the use of occupant sensor controls should make it less likely that sufficient illumination is present for evacuation of the building during emergencies, as long as control systems are designed to eliminate any single point of failure. The proposed language, "so that the failure of any single lighting control device cannot leave any room, or any landing in a stairway, in complete darkness" is similar to the language in NFPA 70 (700.16): "Emergency lighting systems shall be designed and installed so that the failure of any individual lighting element, such as the burning out of a lamp, cannot leave in total darkness any space that requires emergency illumination."

As currently written, the code requires the lighting system to perform as described, but does not detail how this should occur. The use of occupant sensor controls will not change this paradigm: building code officials and fire marshals will still inspect emergency lighting systems in buildings, and if these systems do not perform as required for **any** reason (power system or battery failure, burned out light bulb, bad ballast, improper wiring, or failed occupant sensor) they will require that the defect be fixed. It is easy to verify that occupant sensor controls are functioning properly during inspections: if you are in the space and the lights are off, then the occupant sensor is not working.

Occupant sensor controls will eventually fail and need to be replaced, but their failure rate should be about the same as the failure rate for ballasts, lower than the failure rate of battery packs, and much lower than the failure rate of lamps. In fact, by keeping lights off much of the time the maintenance required for lamps and ballasts will be dramatically reduced, making it easier to keep the overall means of egress lighting system in working order.

The revisions to Section 1024.5 are necessary so that occupant sensor controls **are not** used to control means of egress illumination that is used to charge photoluminescent exit path markings.

Illumination sources for photoluminescent, internally illuminated, and externally illuminated exit signs are already required to operate continuously (Sections 1011.5 and 1011.6), so this proposal will have no impact on exit signs. And likewise there will be no impact on required directional path markings in Special Amusement Buildings (Section 411.7) since these have their own separate lighting requirements.

E24-12				
Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				1006.1 #1-E-Bailey.doc

# E25-12 1006.1.1 (New) [IFC [B] 1006.1.1(New)]

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

### Add new text as follows:

# **1006.1.1 (IFC [B] 1006.1.1) Occupancy sensors.** Occupancy sensors shall be permitted to activate the required illumination for the means of egress provided they meet all of the following conditions:

- 1. The occupancy sensors operate as fail safe devices when the occupancy sensor fails;
- 2 Where the occupancy sensor is activated by an occupant the area served is illuminated for a minimum duration of 15 minutes;
- 3. The occupancy sensor operates as a fail safe device in the event of a power supply failure to the emergency lighting system required by Section 1006.3.
- 4. The means of egress is not required to have illumination to charge luminous egress path markings in accordance with Section 1024.5

**Reason:** This change permits the use of occupancy sensors which has been allowed in some jurisdictions. It also helps reduce energy as mandated by DOE. There are several proposals from the Adhoc Health Care Committee dealing with Section 1006. The proposals can be accepted individually, however, the proposals can work together.

This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx .

Cost Impact: None

#### E25-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
-				1006.1-E-Williams-Adhoc.docx

### E26 - 12 1006.2 (IFC [B] 1006.2)

**Proponent:** Randall R. Dahmen, P.E. Wisconsin licensed Commercial Building Inspector, representing self

#### Revise as follows:

**1006.2 (IFC [B] 1006.2) Illumination level.** The *means of egress* illumination level shall not be less than 1 footcandle (11 lux) at the walking surface. <u>The illumination level at an elevator landing shall not be less</u> than 10 footcancles (100 lux) measured at the elevator sill.

**Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 footcandle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.

**Reason:** IBC 3001.2 adopts ASME A17.1 for the design construction, installation, alteration, repair and maintenance of elevators and conveying systems and their components. ASME A17.a states, "**ASME A17.1, 2.11.10.2 Illumination at Landing Sills.** The building corridors shall be so lighted that the illumination at the landing sills, when an elevator is in service, shall be not less than 100 lx (10 fc)". At present, the IBC does not address this minimum illumination requirement using normal power.

E26-12					
Public Hearing:	Committee:	AS	AM	D	
-	Assembly:	ASF	AMF	DF	
	•				1006.2-E-DAHMEN.doc

# E27-12 1006.2, 1024.5 (IFC [B] 1006.2, 1024.5)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

### **Revise as follows:**

**1006.2 (IFC [B] 1006.2) Illumination level.** The *means of egress* illumination level shall not be less than 1 foot-candle (11 lux) at the walking surface. <u>The *means of egress* illumination level shall not be less than 10 foot-candle (110 lux) at the walking surface where luminous egress path markings are required by Section 1024.1.</u>

**Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 foot-candle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.

**1024.5 (IFC [B] 1024.5) Illumination.** Where *photoluminescent* exit path markings are installed they shall be provided with the minimum *means of egress* illumination required by Section <u>1006</u> <u>1006.2</u> for at least 60 minutes prior to periods when the building is occupied.

**Reason:** The change to Section 1006.2 is the light level needed to charge approved luminous markings. The change to 1024.5 is coordination with lighting levels required in 1006.2 and more specific pointer for this unique area.

This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx .

**Cost Impact:** The code change proposal should not increase the cost of construction because compliance with the standard is already required by facility licensure requirements.

E27-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				1006.2-E3-Williams-Adhoc.docx

### E28 - 12 1006.2, 1024.5 (IFC [B] 1006.2, 1024.5)

**Proponent:** Glenn Heinmiller, Lam Partners Architectural Lighting Design representing self (glenn@lampartners.com)

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

**1006.2 (IFC [B] 1006.2) Illumination level.** The *means of egress* illumination level shall not be less than 1 footcandle (11 lux) at the walking surface an average of 1 footcandle (11 lux) and not less than of 0.2 footcandle (2 lux) at any point. The illumination level shall be measured along the path of egress at floor level. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

**Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 footcandle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.

**1024.5 (IFC [B] 1024.5) Illumination.** Where *photoluminescent* exit path markings are installed, they shall be provided with the minimum *means of egress* illumination required by Section 1006 not less than 1 footcandle (11 lux) of illumination for at least 60 minutes prior to periods when the building is occupied, and continuously during building occupancy.

**Reason:** The code should specify the minimum amount of illumination required for people to safely egress from buildings during an emergency. Requiring more light than is necessary reduces the energy efficiency of buildings, and is in direct conflict with the energy saving goals of the IECC and IGCC.

- 1. European Norm EN 1838 (Emergency Lighting) requires a **minimum** of 1 lux (0.1 footcandle) for safety lighting in escape routes, and a **minimum** of 0.5 lux (0.05 footcandles) of anti-panic lighting. The maximum-to-minimum uniformity ratio must be less than 40 to 1.
- The Ninth Edition of the IESNA Handbook recommends a minimum of 0.1 footcandle in the means of egress, with a maximum-to-minimum uniformity ratio less than 40 to 1.
- 3. Section 1006.3.1 requires that an **average** of 1 footcandle and a **minimum** of 0.1 footcandle be provided at the beginning of an emergency involving the loss of normal power. The maximum-to-minimum uniformity ratio must be less than 40 to 1.
- 4. NFPA 101 (7.9.2.1) also requires that an **average** of 1 footcandle and a **minimum** of 0.1 footcandle be provided at the beginning of an emergency involving the loss of normal power. The maximum-to-minimum uniformity ratio must be less than 40 to 1.

This proposal would reduce the amount of illumination required in means of egress from a minimum of 1.0 footcandle to a minimum of 0.2 footcandle, which should still be twice as much light as we need, based on the references cited above.

Cost Impact: The code change proposal will not increase the cost of construction.

### E28-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				1006.2 #1-E-Heinmiller.doc

# E29 - 12 1006.2 (IFC [B] 1006.2)

**Proponent:** Gene Boecker, AIA, Code Consultants, Inc, representing self (geneb@codeconsultants.com)

### **Revise as follows:**

**1006.2 (IFC [B] 1006.2) Illumination level.** The means of egress illumination level shall not be less than 1 footcandle (11 lux) at the walking surface.

**Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 footcandle (2.15 lux), by one of the following methods provided that the required illumination is automatically restored upon activation of a premises' fire alarm system.

- <u>1.</u> Externally illuminated walking surfaces shall be permitted to be illuminated to not less than 0.2 footcandle (2.15 lux),
- 2. <u>Steps, landings and the sides of ramps shall be permitted to be marked in accordance with</u> <u>Sections 1024.2.1, 1024.2.2 and 1024.2.4 by systems listed in accordance with UL 1994.</u>

**Reason:** The exception is divided into two parts. The first is a relocation of the existing text of the exception. The second part adds the allowance for use of the self-luminous marking system already in the code in Section 1024. Because the illumination levels within an auditorium may not be brought up to sufficiently high levels between performances to charge the photoluminescent markings, only internally illuminated systems are addressed. The light levels produced would be the same as those required for the emergency egress identification provided by the markings in Section 1024. Handrail marking is not included in this proposal because it was not a part of the external illumination concept previously and because it would be distracting to individuals seated at essentially the same eye level as the handrails.

The UL standard is already included in the code. It recognizes internal illumination as one means of achieving the illumination levels desired and provides a method for assuring reliability.

#### Cost Impact: None

#### E29-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
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# E30 - 12 1006.2 (IFC [B] 1006.2)

**Proponent:** Glenn Heinmiller, Lam Partners Architectural Lighting Design representing self (glenn@lampartners.com)

### **Revise as follows:**

**1006.2 (IFC [B] 1006.2) Illumination level.** The *means of egress* illumination level shall not be less than 1 footcandle (11 lux) at the walking surface.

#### **Exception** Exceptions:

- For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 footcandle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.
- 2. For exterior means of egress the illumination at the walking surface is permitted to be reduced to not less than 0.2 footcandle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system.

**Reason:** The IBC should specify the minimum amount of illumination required for people to safely egress from buildings during an emergency. Requiring more light than is necessary reduces the energy efficiency of buildings, and is in direct conflict with the energy saving goals of the IECC and IGCC.

In addition to the energy used by these lighting systems, excessive exterior lighting also contributes to light trespass, which the IGCC seeks to limit.

This proposal would allow buildings with fire alarm systems to operate **exterior** means of egress lighting at a lower level of 0.2 footcandle minimum, provided that light levels automatically increase to 1.0 footcandle minimum when triggered by the fire alarm system.

Many exterior lighting applications require far less than 1.0 footcandle minimum illumination, including most pedestrian walkways. Building owners who wish to invest in a control system which allows them to operate their exterior lighting at lower levels when there is no emergency that requires evacuation of the building should be allowed to do so.

Cost Impact: The code change proposal will not increase the cost of construction.

E30-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
•				1006.2 #2-E-Heinmiller.doc

# E31 – 12 1006.2 (IFC [B] 1006.2)

**Proponents:** Jack Bailey, One Lux Studio, representing The International Association of Lighting Designers (jbailey@oneluxstudio.com)

### **Revise as follows:**

**1006.2 (IFC [B] 1006.2) Illumination level.** The *means of egress* illumination level shall not be less than 1 footcandle (11 lux) at the walking surface.

#### Exceptions:

- 1. For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 footcandle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.
- For exterior means of egress illumination shall average not less than 1 footcandle (11 lux) and not less than of 0.1 footcandle (1 lux) at any point. The illumination level shall be measured along the path of egress at floor level. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

**Reason:** Exterior light levels are typically much lower than interior light levels, and this should be recognized by the code. The code requires that all exit discharges be illuminated to the public way, or to a safe dispersal area on the building site, with illumination levels as specified in Section 1006.2. For larger buildings or campuses distant from a public way, this can mean

hundreds of feet of exterior pathways that are required to be illuminated at all times the building is occupied. It is good that emergency illumination is required for exterior means of egress, but the illumination requirement must be

appropriate.

The proposed light levels are copied from 1006.3.1, and we would suggest that if this is sufficient light for a safe and orderly evacuation of the building when normal power is lost, it should also be sufficient when normal power is available. Excessive exterior lighting is problematic for several reasons:

1. It wastes energy.

- 2. It encourages overlighting for other areas of the site (because you may not want an infrequently used egress path to be the brightest area on site), which wastes even more energy.
- 3. It contributes to light pollution, which has been shown to harm both human and animal health.

E31-1	12
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Public Hearing: Commi	ttee: AS	AM	D	
Assem	bly: ASF	AMF	DF	
	•			1006.2 #1-E-Bailey.doc

### E32 – 12 1006.2.1, 1006.3.1 (IFC [B] 1006.2.1, 1006.3.1)

**Proponents:** Jack Bailey, One Lux Studio, representing The International Association of Lighting Designers (jbailey@oneluxstudio.com)

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

**1006.2 (IFC [B] 1006.2) Illumination level.** The *means of egress* illumination level shall not be less than 1 footcandle (11 lux) at the walking surface average not less than of 1 footcandle (11 lux) and not less than 0.1 footcandle (1 lux) at any point. The illumination level shall be measured along the path of egress at floor level. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

**Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.1 <u>footcandle (1 lux)</u> <del>0.2 footcandle (2.15 lux)</del>, provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.

**1006.3.1 (IFC [B] 1006.3.1) Illumination level under emergency power.** Emergency lighting facilities shall be arranged to provide initial illumination <u>in accordance with Section 1006.2.</u> that is at least an average of 1 footcandle (11 lux) and a minimum at any point of 0.1 footcandle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 footcandle (6 lux) average and a minimum at any point of 0.06 footcandle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

**Reason:** IBC 2012 has two different standards for light levels in the means of egress, which is confusing to many people. Under normal power, a **minimum** of 1 footcandle of illumination is required. Under emergency power, an **average** of 1 footcandle of illumination is required, with a **minimum** of 0.1 footcandle. This proposal would simplify these requirements to require one light level at all times. Section 1006.3.1 is still required, to allow illumination levels from battery powered lighting equipment to decline as the batteries run down.

We do not believe that this proposal will have any impact on photoluminescent or externally illuminated exit signs (Sections 1011.5 and 1011.6.2), or directional path markings in Special Amusement Buildings (Section 411.7) since these have their own separate lighting requirements.

We believe that this change is necessary for several reasons:

First, the current code allows light levels to decline by up to 90% at the start of an emergency that involves loss of normal power, and this is a time when people are likely to panic. Keeping light levels consistent at the beginning of an emergency should enhance safety.

Second, we believe that the current IBC requirement for an average of 1 footcandle and a minimum of 0.1 footcandle under emergency power is sufficient for a safe and orderly evacuation of the building, so why should more light be required under normal operating conditions?

Third, 1 footcandle minimum illumination is excessive for many types of uses. Most bars, night clubs, and fine dining restaurants do not provide 1 footcandle minimum illumination because it is inappropriately high. Most movie theaters do not provide a minimum of 0.2 footcandle in aisles during projections for the same reason. And most exterior lighting applications require less than a minimum of 1.0 footcandle. We would rather see a reasonable requirement consistently complied with than an unreasonable requirement regularly ignored.

And finally, higher light levels have an environmental impact. Excessive lighting wastes energy. And when emergency light fixtures are provided with integral battery packs (which is the most common solution in many jurisdictions), those battery packs always contain either lead or cadmium, which are toxic, and they often end up in municipal landfills because of improper disposal.

It is vitally important that buildings are provided with sufficient illumination to allow a safe and orderly evacuation during emergencies. But excessive lighting does not improve safety, and does harm the environment.

E32-12				
Public Hearing: Committee: Assembly:	AS ASF	AM AMF	D DF	
				1006.2 #2-E-Bailey.doc

# E33-12 1006.2.1 (New), 1006.3.1 [IFC [B] 1006.2.1(New), 1006.3.1]

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

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

**1006.2.1 (IFC [B] 1006.2.1) Exit discharge.** In Group I-2 occupancies, at the exit discharge, exterior landings as required by Section 1008.1.6 for *exit discharge* doorways in buildings required to have two or more *exits*, failure of any single lighting unit shall not reduce the illumination level to less than 1 foot-candles (11 lux).

**1006.3.1 (IFC [B] 1006.3.1) Illumination level under emergency power.** Emergency lighting facilities shall be arranged to provide initial illumination that is at least an average of 1 foot-candle (11 lux) and a minimum at any point of 0.1 foot-candle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 foot-candle (6 lux) average and a minimum at any point of 0.06 foot-candle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded. In Group I-2 occupancies, failure of any single lighting unit shall not reduce the illumination level to less than 0.2 foot-candles (2.2 lux).

**Reason:** The intent of new Section 1006.2.1 is to assure that the failure of a single lighting unit will not comprise the minimum lighting levels needed to safely egress during exit discharge.

The revision in Section 1006.3.1 is to assure performance of the lighting system during an emergency. The requirement creates a level of redundancy needed to assure lighting levels.

The limitation to Group I-2 is due to the scope of the Adhoc Health committee. There are no reasons why this would not be a good change for a majority of occupancies.

This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx .

Cost Impact: None

### E33-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				1006.2.1-E-Williams-Adhoc.docx

# E34 – 12 1006.3 (IFC [B] 1006.3)

**Proponent:** Gene Boecker, Code Consultants, Inc., representing self (geneb@codeconsultants.com); Maureen Traxler, City of Seattle Department of Planning and Development, representing City of Seattle Department of Planning and Development (maureen.traxler@seattle.gov)

### Revise as follows:

**1006.3 (IFC [B] 1006.3) Emergency power for illumination.** The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.

**1006.3.1 (IFC [B] 1006.3.1) Rooms and spaces.** In the event of power supply failure, <u>in rooms and spaces that require two or more means of egress</u> an emergency electrical system shall automatically illuminate all of the following areas:

- 1. Aisles and unenclosed egress stairways in rooms and spaces that require two or more means of egress.
- 2. Corridors, interior exit stairways and ramps and exit passageways in buildings required to have two or more exits.
- 3. Exit access stairways and ramps

**1006.3.2 (IFC [B] 1006.3.2) Buildings.** In the event of power supply failure, in buildings that require two or more means of egress, an emergency electrical system shall automatically illuminate all of the following areas:

- 1. Interior exit access stairways and ramps
- 2. Interior and exterior exit stairways and ramps
- 3. Exit passageways
- 3. Exterior egress components at other than their levels of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.
- Interior exit discharge elements <u>Vestibules and areas on the level of discharge used for exit</u> <u>discharge in accordance with</u>, as permitted in Section 1027.1, in buildings required to have two or more exits.
- Exterior landings as required by Section 1008.1.6 for exit discharge doorways that lead directly to the exit discharge in buildings required to have two or more exits.

**1006.3.3 (IFC [B] 1006.3.3) Duration.** The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2702.

### 1006.3.1 1006.3.4 (IFC [B] 1006.3.1 1006.3.4) Illumination level under emergency power. (no change)

**Reason:** This proposal corrects a small glitch in the 2012 code, and is otherwise editorial. The glitch is that a space for which two means of egress are required might not have an aisle or corridors, for example a gymnasium or horse practice arena. Therefore, Section 1006.3 would not require emergency lighting. The provision that requires emergency lighting when two or more exits are required is moved out of the list so that all such spaces will have emergency lighting. In addition, the proposal updates the terminology used for stairways and ramps.

Cost Impact: None

AS	AM	D	
ASF	AMF	DF	1006 3 1(new)-E-Boecker-Travler doc
	AS ASF	AS AM ASF AMF	AS AM D ASF AMF DF

# E67-12 1008.1.9.6 (IFC [B] 1008.1.9.6)

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

### **Revise as follows:**

**1008.1.9.6 (IFC [B] 1008.1.9.6)** Special Controlled egress locking arrangements in doors in Group I-2. Approved, Electric special egress locks, including electro-mechanical locks and electromagnetic locks, shall be permitted to be locked in the means of egress in a Group I-2 occupancy where the clinical needs of persons receiving care require their containment. such locking. Special egress locks Controlled egress doors shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic-smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with Items 1 through 7 8 below.

- 1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
- 2. The doors unlock upon loss of power controlling the lock or lock mechanism.
- The door locks shall have the capability of being unlocked by a <u>switch that directly breaks power</u> to the lock, located signal from <u>at</u> the fire command center, a nursing station or other approved location.
- 4. A building occupant shall not be required to pass through more than one door equipped with a special controlled egress lock before entering an exit.
- The procedures for the operation(s) of the unlocking system of the doors shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.
- All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.
- 7. Emergency lighting shall be provided at the door.
- 8. All components of the door locking system shall be listed in accordance with UL 294.

**Exception:** Items 1 through 4 shall not apply to doors to areas where persons which because of clinical needs require restraint or containment as part of the function of a psychiatric treatment area.

**Reason:** This section deals with the use of electric locks to enhance the capabilities of egress control. Egress control serves three primary purposes. These are to control the elopement of ambulatory patients not capable of self preservation; the containment of patients that, due to their mental condition, could do harm to others; the prevention of the abduction of babies and children. Exceptions allow for the use of listed child abduction security systems and even mechanical locks (non-electric.)

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None	e				
E67-12					
Public Hearing:	Committee:	AS	AM	D	
	Assembly:	ASF	AMF	DF	
	,				1008.1.9.6#2-E-WILLIAMS-ADHOC.doc

### E68 – 12 1008.1.9.6 (IFC [B] 1008.1.9.6)

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

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

#### 1008.1.9.6 (IFC [B] 1008.1.9.6) Special locking arrangements Controlled egress doors in Group I-2.

Approved special egress Electric locks including electro-mechanical locks and electromagnetic locks shall be permitted to be locked in the means of egress in a Group I-2 occupancy where the clinical needs of persons receiving care require their containment. such locking. Special egress locks Controlled egress doors shall be permitted in such occupancies where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with Items 1 through 7<u>8</u>.

- 1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
- 2. The doors unlock upon loss of power controlling the lock or lock mechanism.
- 3. The door locks shall <u>be installed to have the capability of being unlocked by a signal from switch</u> <u>located at the fire command center</u>, a nursing station or other *approved* location. <u>The switch shall</u> <u>directly break power to the lock</u>.
- 4. A building occupant shall not be required to pass through more than one door equipped with a <u>special controlled</u> egress lock before entering an *exit*.
- 5. The procedures for the operation(s) of the unlocking of the doors system shall be described and *approved* as part of the emergency planning and preparedness required by Chapter 4 of the *International Fire Code*.
- All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.
- 7. Emergency lighting shall be provided at the door.
- 8. The components of the door locking system shall be listed in accordance with UL 294.

**Exception:** Items 1 through 4 shall not apply to doors to areas where persons, which because of clinical needs, require restraint or containment as part of the function of a psychiatric treatment area.

**Reason:** Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. Further revisions are recommended to Items 3 and 8. The further revisions are essentially editorial or help to clarify the intent.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando ICC AHC meeting for a final look-see at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

#### Cost Impact: None.

E68-12			
Public Hearing: Committee:	AS	AM	D
Assembly:	ASF	AMF	DF

1008.1.9.6-E-Woestman.doc

# E69-12 1008.1.9.6 (IFC [B] 1008.1.9.6)

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

### **Revise as follows:**

**1008.1.9.6 (IFC [B] 1008.1.9.6) Special locking arrangements in Group I-2.** Approved, special egress locks shall be permitted in a Group I-2 occupancy where the clinical needs of persons receiving care require such locking. Special egress locks shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with Items 1 through 7 below.

- 1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
- 2. The doors unlock upon loss of power controlling the lock or lock mechanism.
- 3. The door locks shall have the capability of being unlocked by a signal from the fire command center, a nursing station or other approved location.
- 4. A building occupant shall not be required to pass through more than one door equipped with a special egress lock before entering an exit.
- 5. The procedures for the operation(s) of the unlocking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.
- 6. All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.
- 7. Emergency lighting shall be provided at the door.

### Exception Exceptions:

- Items 1 through 4 shall not apply to doors to areas where persons which because of clinical needs require restraint or containment as part of the function of a psychiatric treatment area.
- 2. <u>Items 1 through 4 shall not apply to doors to areas where a listed egress control system</u> is utilized to reduce the risk of child abduction.

**Reason:** This section deals with the use of electric locks to enhance the capabilities of egress control. Egress control serves three primary purposes. These are to control the elopement of ambulatory patients not capable of self preservation; the containment of patients that, due to their mental condition, could do harm to others; the prevention of the abduction of babies and children. Exceptions allow for the use of listed child abduction security systems and even mechanical locks (non-electric.)

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E69-12					
Public Hearing:	Committee:	AS	AM	D	
-	Assembly:	ASF	AMF	DF	
	•				1008.1.9.6#1-E-WILLIAMS-ADHOC.doc

# E70-12 1008.1.9.7 (IFC [B] 1008.1.9.7)

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

### **Revise as follows:**

**1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks**. *Approved, listed,* Delayed egress locks locking systems, shall be permitted to be installed on doors serving any occupancy except Group A, E, and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907<sub>7</sub>. The locking system shall allow immediate free egress and shall be installed and operated provided that the doors unlock in accordance with Items 1 through 6 <u>7</u> below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit*.

- 1. The <u>delay electronics shall deactivate</u> <del>doors unlock</del> upon actuation of the *automatic sprinkler* system or automatic fire detection system, <u>allowing immediate</u>, free egress.
- 2. The doors unlock delay electronics shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
- 3. The door locks <u>delay electronics</u> shall have the capability of being <u>unlocked by a signal from</u> <u>deactivated at</u> the fire command center <u>and other approved locations</u>.
- <u>4.</u> <u>An attempt to egress</u> <u>The initiation of shall initiate</u> an irreversible process which <u>will release the shall allow such egress</u> in not more than 15 seconds when a force of not more than 15 pounds (67 N) <u>physical effort to exit</u> is applied <u>to the egress side door hardware</u> for <u>not more than 4.3</u> <u>second seconds</u> to the release device. <u>The effort to open the door shall not require a force</u> <u>greater than 30 pounds (133N)</u>. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the <u>delay electronics</u> <del>door lock has</del> <u>have</u> been <del>released</del> <u>deactivated</u>, by the application of force to the releasing device, relocking rearming <u>the delay electronics</u> shall be by manual means only.

**Exception:** Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

- A sign shall be provided on the door located above and within 12 inches (305mm) of the release device door exit hardware reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 (30) SECONDS. The sign shall comply with the visual character requirements in ICC A117.1.
- 6. Emergency lighting shall be provided at on the egress side of the door.
- 7. All components of the door locking system shall be listed in accordance with UL 294.

**Reason:** The intent of this proposal is to clarify the delayed egress locking system requirements. The intent is for all proposals for Section 1008.1.9.7 to work together. Three changes are submitted in order to keep the discussions separate.

The term "delayed egress lock" is proposed to be changed to "delayed egress locking system." Delayed egress always requires a system of electronic devices that work together to perform the delayed egress task. Sometimes they are contained within an electromagnetic lock or a bar and sometimes they are separate components, but they are never just a lock.

The term 'unlock" is proposed to change to "allow immediate free egress." Immediate free egress can be accomplished without unlocking the door. Merchants, offices and health care facilities are hesitant to use delayed egress because an "after hours" egress event will leave their building unlocked. Addressing the "delay" as a separate issue from "locked", this modification will allow the door to relock FROM THE OUTSIDE after a delayed egress event, but change the operation of the door to free egress until the system is manually reset. The intent of the code is not to keep people out. Instead, it is to let them out.

In Item 4 it is proposed to change the delay from one second to three seconds. One second is not enough time for a fully cognizant person to recognize that their action is what is causing the alarm and decide to abort the exit attempt. Dementia patients tend to wander toward doors when not otherwise engaged. Since staffing cannot be 1:1, it means that the nurses are attending other issues. Reducing these "nuisance" alarm issues can greatly reduce the need to drop everything and go check and reset the door.

In Item 4 it is proposed to make the force requirement consistent with Section 1008.1.3. There are three ways to initiate a delay sequence that are in common use, today. The code has never been changed to accommodate two of these. The original one,

an electromagnetic lock with delay electronics and a switch built into the case, is not addressed. It allows the use of existing door hardware and should be used with exit only applications. Otherwise, it can be triggered from both sides. The second means of delay initiation includes switches in cylindrical and mortise locks that begin the sequence when the inside lever is turned. This method has become possible with the ADA changes made to these locks to accommodate levers. The third method is the one the code seems to reference. It uses a switch bar (aka active dummy with switch), a panic bar with a switch, or fire-exit hardware with a switch. Depending on the manufacturer and the model number, the switch may either signal an external delay timer that controls an electromagnetic lock or signal a self-contained delayed egress system that controls a latch.

In Item 5 it is proposed to require a contrasting color for signage. Manufacturers typically supply the sign with their product, but often the sign blends in with the color of the door. The reference to ICC A117.1 visual requirements would not require engraved letters or Braille, but would require readable text, with good finish and contrast.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

#### E70-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
5				1008.1.9.7#2-E-WILLIAMS-ADHOC.doc

### E71 – 12 1008.1.9.7 (IFC [B] 1008.1.9.7)

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

### **Revise as follows:**

**1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks.** *Approved, listed,* Delayed egress locks locking systems, shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, The locking system shall be installed and operated provided that the doors unlock-in accordance with Items 1 through 67 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit*.

- 1. The <u>delay electronics shall deactivate</u> doors unlock upon actuation of the *automatic sprinkler system* or automatic fire detection system, <u>allowing immediate</u>, free egress.
- 2. The doors unlock delay electronics shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
- 3. The door locks <u>delay electronics</u> shall have the capability of being <u>unlocked by a signal from</u> <u>deactivated at</u> the fire command center <u>and other approved locations</u>.
- 4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. A force of not more 15 pounds applied to the egress side release device for not more than 3 seconds shall initiate an irreversible process which shall allow egress in not more than 15 seconds. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. The door shall be set in motion when subjected to a force of not more than 30 pounds (133 N). The door shall be able to swing to a full open position when subjected to a force of not more than 15 pounds (67 N). Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only. Once the delay electronics have been deactivated, rearming the delay electronics shall be by manual means only.

Exception: Where approved, a delay of not more than 30 seconds is permitted.

- A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
- 6. Emergency lighting shall be provided at the door.
- 7. The components of the door locking system shall be listed in accordance with UL 294.

**Reason:** Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. Additional revisions are suggested to the main paragraph, Item 4 and Item 7.

Item 4 will benefit from a clarification of where and how the maximum 15 pound force is applied to initiate the delay "count down". Also in Item 4, the maximum force allowed to set the door in motion, and to swing to the full open position, comes from Section 1008.1.3. The other revisions are essentially editorial or help to clarify the intent.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando AHC meeting for a final looksee at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

Cost Impact: None.

E71-12				
Public Hearing: Comm	ittee: AS	AM	D	
Assem	bly: ASF	AMF	DF	
	-			1008.1.9.7 #1-E-Woestman.doc

# E72-12 1008.1.9.7 (IFC [B] 1008.1.9.7)

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

### **Revise as follows:**

**1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks**. Approved, listed, delayed egress locking systems, shall be permitted to be installed on doors serving any occupancy except Group A, E, and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 <u>7</u> below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *oxit*.

- 1. The doors unlock upon actuation of the *automatic sprinkler system* or automatic fire detection system.
- 2. The doors unlock upon loss of power controlling the lock or lock mechanism.
- 3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
- 4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for *1 second* to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.

**Exception:** Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. The egress path from any point shall pass through no more than one delayed egress door.

**Exception:** In Group I-2 or I-3 occupancies, the egress path from any point in the building shall be permitted to pass through no more than two delayed egress doors provided the combined delay does not exceed 30 seconds.

- A sign shall be provided on the door located above and within 12 inches (305mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 (30) SECONDS.
- 7. Emergency lighting shall be provided at the door.

**Reason:** This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The intent is for both proposals for Section 1008.1.9.7 to work together. Two changes are submitted in order to keep the discussions separate.

Since delayed egress was developed in two separate theaters for two separate reasons, pilfering was a reason that is perfect for *one* 15 second delay. Back then, sprinkler requirements were not like they are today. On the other hand, delayed egress for health care in a fully sprinklered facility should be recognized as being different. A delay of thirty seconds is appropriate for this situation and so should two 15 second delays when used for good purpose, as they delay the person for no more time and often for less time. Following are two good purposes:

- 1. Property, especially in cities, is at a premium in both price and availability. For this reason, we see more and more two and three story ambulatory health care facilities as a result of needing to build up instead of out. This comes with a need to keep Alzheimer's disease and Head Injury patients on the floor **and** in the building. Currently, the facility is tasked with having to make a dangerous and unnecessary choice.
- 2. Most large (60+) single story dementia facilities have a perimeter fence surrounding the back and sides of the building. All exits except the front door are into a protected yard. The front door controls entry into the office/lobby area and reception. It is a small area requiring only the front door as an exit. A second door leading from the front office area into the core of the facility keeps the residents from eloping and strangers from entering. Originally, this door was not an exit and the facility side of the door was disguised as a wall so residents (patients) would not try to get out. Since it was not an exit, a delayed egress system was placed on that door and another one on the front door. Keypads were on both sides and both systems would unlock upon activation of the fire alarm. It was a mantrap designed so that if the lobby to core door went into alarm, the front door would instantly become delayed egress. Pursuant to the "discovery" and subsequent enforcement of the idea that if people exit the way they entered, the lobby to core door was an exit, should not be disguised and the front door could no longer be delayed. Without exceptions for those with health issues, the patients were now less safe than before. Allowing two 15 second delays would return them to a safe environment. This reasoning could also be applied toward doors leading into a common lobby with a stair tower door. The stair tower door would be free egress unless someone had triggered the ward delay in an attempt to elope from the ward. This would set off the alarm and arm the stair tower door's delayed egress system.

#### Cost Impact: None

### E72-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
•				1008.1.9.7#3-E-WILLIAMS-ADHOC.doc

# E74-12 1008.1.9.7 (IFC [B] 1008.1.9.7)

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

### **Revise as follows:**

**1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks.** *Approved, listed*, delayed egress locks locking systems, shall be permitted to be installed on doors serving any occupancy except Group A, E, and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit*.

- 1. The doors unlock upon actuation of the *automatic sprinkler system* or automatic fire detection system.
- 2. The doors unlock upon loss of power controlling the lock or lock mechanism.
- 3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
- 4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for *1 second* to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released, by the application of force to the releasing device, relocking rearming shall be by manual means only.

**Exception:** Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

 A sign shall be provided on the door located above and within 12 inches (305mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 (30) SECONDS.

**Exception:** Where approved, the installation of a sign is not required when it interferes with the safety of the residents in Group I occupancies.

6. Emergency lighting shall be provided at the door.

**Reason:** The intent is for all proposals for Section 1008.1.9.7 to work together. Three changes are submitted in order to keep the discussions separate.

The new exception to Item 5 - Providing escape instructions to first stage Alzheimer's disease patients who often still can read is unwise. Staff is there to assist in a fire.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E74-12					
<b>Public Hearing:</b>	Committee:	AS	AM	D	
-	Assembly:	ASF	AMF	DF	
	•				1008.1.9.7#1-E-WILLIAMS-ADHOC.doc

### E75 – 12 1008.1.9.7 (IFC [B] 1008.1.9.7)

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

### **Revise as follows:**

**1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks.** *Approved, listed*, delayed egress locks locking systems, shall be permitted to be installed on doors serving any occupancy except Group A, E, and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit*.

- 1. The doors unlock upon actuation of the *automatic sprinkler system* or automatic fire detection system.
- 2. The doors unlock upon loss of power controlling the lock or lock mechanism.
- 3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
- 4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for *1 second* to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released, by the application of force to the releasing device, relocking rearming shall be by manual means only.

**Exception:** Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

 A sign shall be provided on the door located above and within 12 inches (305mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 (30) SECONDS.

**Exception:** Where approved, the installation of a sign is not required when the instructions compromise the safety of the residents in Group I occupancies.

6. Emergency lighting shall be provided at the door.

**Reason:** Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. The further proposed revisions are essentially editorial and help to clarify the intent.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando AHC meeting for a final looksee at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

Cost Impact: None.

E75-12					
Public Hearing:	Committee:	AS	AM	D	
	Assembly:	ASF	AMF	DF	
					1008.1.9.7 #2-E-Woestman.doc

# E76 – 12 1008.1.9.7(New) [IFC [B] 1008.1.9.7(New)]

**Proponent:** Bryan M Romney, Building Official, University of Utah, Salt Lake City, Utah, representing self

### Add new text as follows:

**1008.1.9.7 (IFC [B] 1008.1.9.7) Security locking arrangements.** Approved special security egress locking systems shall be permitted on Group A occupancies including, but not limited to, museums, art galleries, special collections libraries and courtrooms; and Group B or M occupancies; for doors in the means of egress serving rooms or spaces where security needs of persons or building contents required such locking. Special egress locks shall be permitted in these occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with all of the following:

- 1. <u>The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection</u> <u>system.</u>
- 2. The doors unlock upon loss of power controlling the lock or lock mechanism.
- 3. The door locks shall have the capability of being unlocked by a signal from an approved location that is constantly attended when the building is occupied.
- 4. Doors equipped with a security locking arrangement are monitored by either direct line of sight or remote monitoring from the constantly attended station.
- 5. A building occupant shall not be required to pass through more than one door equipped with a special security egress locking system before entering an exit.
- 6. The procedures for the operation of the special security egress locking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.
- 7. All security staff or persons identified in the procedures for Item 6 shall have the keys, codes, or other means necessary to operate the locking devices.
- 8. Emergency lighting shall be provided at the door.

(Renumber subsequent sections)

**Reason:** Chapter 10 does not provide a method for special locking or controlled egress except for Group I-1 and I-3 Occupancies. Other occupancy groups have needs for special locking arrangements either for securing persons or building contents. Examples include courtrooms where people poising a flight risk need special secure egress considerations. Research labs and animal housing facilities frequently require controlled egress systems such as card of biometric ingress and egress control systems. Libraries with rare book collections, art galleries, museums or mercantile occupancies where building contents area at risk of being stolen have needs for special security egress locking systems. This code addition would permit the code official to approve special locking arrangements in other occupancy groups where a demonstrated need exists. The procedure by which the special locking arrangement functions is to be reviewed and approved by the code official as outlined in Item 6. This item would allow the code official to approve special security egress locking systems under prescriptive requirement of Chapter 10 without having to approve an alternate design or method outlined in Section 104.11. This code addition allows an already existing code provisions for controlled egress doors in Group I-2 occupancies to be allowed for other occupancy groups where a demonstrated need exists. No new or unproven code protocol is created in this code addition, only an existing, proven, and verified provision is being extended to other occupancy groups which for years have had critically security needs not allowed by the code.

**Cost Impact:** No initial construction cost impact. The IFC may require ongoing inspections of the Chapter 4 emergency planning and preparedness protocol compliance.

E76-12				
Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				1008.1.9.7-E-ROMNEY.doc

# E77-12 1008.1.9.8, 1008.1.9.9 (IFC [B] 1008.1.9.8, 1008.1.9.9)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

### **Revise as follows:**

**1008.1.9.8 (IFC [B] 1008.1.9.8) Access controlled egress doors.** The entrance doors in a means of egress in buildings with an occupancy in Groups A, B, E, <u>I-1</u>, I-2, <u>I-4</u>, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in groups A, B, E, <u>I-1</u>, I-2, <u>I-4</u>, M, R-1 or R-2 are permitted to be equipped with an approved entrance and egress access control system, listed in accordance with UL 294, which shall be installed in accordance with all of the following criteria:

- 1. A sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
- 2. Loss of power to that the part of the access control system which locks the doors shall automatically unlock the doors.
- 3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016mm to 1219mm) vertically above the floor and within 5 feet (1524mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of the access control system electronics—and the doors shall remain unlocked for a minimum of 30 seconds.
- 4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
- Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
- 6. Entrance doors in buildings with an occupancy in Group A, B, E, or M shall not be secured from the egress side during periods that the building is open to the general public.

**1008.1.9.9 (IFC [B] 1008.1.9.9) Electromagnetically locked egress doors.** Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, <u>I-1, I-2, I-4</u>, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, <u>I-1, I-2, I-4</u>, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meets the requirements below:

- 1. The listed hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
- 2. The listed hardware is capable of being operated with one hand.
- 3. Operation of the listed hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
- 4. Loss of power to the listed hardware automatically unlocks the door.
- 5. Where panic or *fire exit hardware* is required by Section 1008.1.10, operation of the listed panic or *fire exit hardware* also releases the electromagnetic lock.

**Reason:** Group I-1 and I-2 include patients where they may be a concern for elopement. In day care, there is the concern of children perhaps leaving the facility. These types of systems allow for some control, while at the same time allowing free egress during an emergency.

If the correlative change for Group R-4, Condition 1 and Condition 2 is successful, a public comment regarding the application of these types of locking arrangements may be submitted.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: Increase

E77-12					
Public Hearing:	Committee:	AS	AM	D	
-	Assembly:	ASF	AMF	DF	
	•				1008.1.9.8-E-BALDASSARRA-CTC.docx

### E78-12 1008.1.9.8 (IFC [B] 1008.1.9.8)

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

### **Revise as follows:**

**1008.1.9.8 (IFC [B] 1008.1.9.8)** Access controlled Motion sensor release of electromagnetically <u>locked</u> egress doors. <u>Electromagnetically locked The entrance</u> doors <u>located</u> in a means of egress in buildings with an occupancy in Groups A, B, E, I-2, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in groups A, B, E, I-2, M, R-1 or R-2 are permitted to be equipped with an approved entrance and egress access control system, listed in accordance with UL 294, which shall be where installed <u>and operated</u> in accordance with all of the following criteria:

- A motion sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
- 2. Loss of power to that the lock part of the access control system which locks the doors shall automatically unlock the doors.
- 3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016mm to 1219mm) vertically above the floor and within 5 feet (1524mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of the access control system other electronics—and the doors shall remain unlocked for a minimum of 30 seconds.
- 4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
- Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
- Entrance doors in buildings with an occupancy in Group A, B, E, or M shall not be secured from the <u>always allow immediate free</u> egress side during periods that the building is open to the general public.
- 7. All components of the door locking system shall be listed in accordance with UL 294.

**Reason:** This code was originally proposed to NFPA, UBC/UFC, and BOCA as an **alternative** way to release electromagnetic locks. It came from Washington, D.C. security contractors in the early 1980s when faced with installing electromagnetic locks on hundreds of all glass doors on defense contractors' facilities. There was no way to install bars with switches and no way to conceal the wiring. The title, Access Controlled Egress Doors, **meant** that access to free egress was controlled. It had nothing to do with the (then) new *electronic access control systems*.

The code addressed fire safety by taking aspects of devices not allowed and making them safer when used together. Buttons, once special knowledge, were given specific placement parameters and requirements to break the power to the lock, <u>directly</u>; the somewhat unreliable motion sensor was backed up by the button; the 30 second re-triggerable and independent timer attached to the button protected against CPU failure and allowed 30 seconds before relocking so the disabled could get through the door; and the connection to the fire system meant that the door would unlock upon alarm. It was an alternate code, designed to be used sparingly and in certain situations.

This code is used heavily in hospitals, but its application is often misunderstood. It is time to clean up this code by eliminating confusing references to *access control systems*, directly or implied. Access has never been an issue for the codes, except in high-rise stair towers.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

#### Cost Impact: None

#### E78-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
-				1008.1.9.8-E-WILLIAMS-ADHOC.doc

### E79 – 12 1008.1.9.8 (IFC [B] 1008.1.9.8)

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

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

**1008.1.9.8 (IFC [B] 1008.1.9.8)** Access controlled Electrically locked egress doors. Electically <u>locked</u> The entrance doors <u>without a door mounted manual lock release located</u> in a means of egress in buildings with an occupancy in Groups A, B, E, I-2, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in groups A, B, E, I-2, M, R-1 or R-2 are <u>shall be</u> permitted to be equipped with an approved entrance and egress access control system, listed in accordance with UL 294, which shall be <u>where</u> installed <u>and operated</u> in accordance with all of the following criteria:

- 1. A sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
- Loss of power to that the lock part of the access control system which locks the doors shall automatically unlock the doors.
- 3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016mm to 1219mm) vertically above the floor and within 5 feet (1524mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of the access control locking system electronics—and the doors shall remain unlocked for a minimum of 30 seconds.
- 4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
- 5. Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
- 6. Entrance doors in buildings with an occupancy in Group A, B, E, or M shall not be secured from the <u>always allow immediate free</u> egress side during periods that the building is open to the general public.
- 7. The components of the door locking system shall be listed in accordance with UL 294.

**Reason:** Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. Revisions are to the main paragraph, Items 1, 3 and 7.

The doors included in this section utilize electrical components in their locking systems to help ensure egress. These systems use a sensor to recognized the presence of a pedestrian, and then unlock the electrical lock (such as an electromagnetic lock) but these electrical locking systems are also required to be unlockable by a manually operated button mounted on the wall on the egress side of the door (Item 3 of the criteria). Regarding the sensors, the sensor technologies used with these doors may not technically be a motion sensor.

Access-controlled egress doors are commonly configured without a door-mounted manual lock release on the egress side such as panic hardware. These doors usually require a magnetic card or similar instrument for authorized entry, and the absence of the door-mounted manual lock release on the egress side prevents a person on the outside from inserting a wire or similar tool between the gaps in the door edges to release the lock.

The other revisions are essentially editorial or help to clarify the intent.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando ICC AHC meeting for a final look-see at the proposed language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.
Cost Impact: None.

E79-12					
Public Hearing: (	Committee:	AS	AM	D	
- 4	Assembly:	ASF	AMF	DF	
	•				1008.1.9.8-E-Woestman.doc

## E80 – 12 1008.1.9.8 (IFC [B] 1008.1.9.8)

**Proponent:** Robert Trotter, representing Tennessee Code Development Committee (bobtrotter1023@aol.com)

### Revise as follows:

**1008.1.9.8 (IFC [B] 1008.1.9.8) Access-controlled egress doors.** The entrance doors in a means of egress in buildings with an occupancy in Group A, B, E, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in Groups A, B, E, M, R-1 and R-2 are permitted to be equipped with an approved entrance and egress access control system, listed in accordance with UL 294, which shall be installed in accordance with all of the following criteria:

- 1. A sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
- 2. Loss of power to that part of the access control system which locks the doors shall automatically unlock the doors.
- 3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016 mm to 1219 mm) vertically above the floor and within 5 feet (1524 mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of the access control system electronics—and the doors shall remain unlocked for a minimum of 30 seconds.
- 4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
- Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
- 6. Entrance doors in buildings with an occupancy in Group A, B, E or M shall not be secured from the egress side during periods that the building is open to the general public.

**Reason:** The sixth criterion is redundant and should be removed from the code. The first five requirements satisfactorily meet the needs for access-controlled egress doors. The doors are not secured from the egress side when the first five criterions are met.

Cost Impact: The code change proposal will not increase the cost of construction.

E80-12				
Public Hearing: Corr	nmittee: AS	AM	D	
Asse	embly: ASF	AMF	DF	
	•			1008.1.9.8-E-Trotter.doc

## E81-12 1008.1.9.9 (IFC [B] 1008.1.9.9)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

### **Revise as follows:**

**1008.1.9.9 (IFC [B] 1008.1.9.9) Electromagnetically locked egress doors.** Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, <u>I-2</u>, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, <u>I-2</u>, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meet the requirements below :

- 1. The listed hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
- 2. The listed hardware is capable of being operated with one hand.
- 3. Operation of the listed hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
- 4. Loss of power to the listed hardware automatically unlocks the door.
- 5. Where panic or *fire exit hardware* is required by Section 1008.1.10, operation of the listed panic or *fire exit hardware* also releases the electromagnetic lock.

**Reason:** The addition of I-2 is necessary since so many of these health care facilities use electromagnetic locks for security and personnel safety, something that 1008.1.9.8 cannot provide.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx.

Cost Impact: None

E81-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
-				1008.1.9.9#2-E-WILLIAMS-ADHOC.doc

## E82-12 1008.1.9.9 (IFC [B] 1008.1.9.9)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

### **Revise as follows:**

### 1008.1.9.9 (IFC [B] 1008.1.9.9) Door hardware release of electromagnetic locks on

**Electromagnetically locked egress doors.** Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meet the requirements below are installed and operated in accordance with Items 1 through 6 below:

- 1. The listed hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
- 2. The listed hardware is capable of being operated with one hand.
- 3. Operation of the listed hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
- 4. Loss of power to the listed hardware automatically unlocks the door.
- 5. Where panic or *fire exit hardware* is required by Section 1008.1.10, operation of the listed panic or *fire exit hardware* also releases the electromagnetic lock.
- 6. All components of the door locking system shall be listed in accordance with UL 294.

**Reason:** The title change is to prevent confusion between the two types of releasing systems for electromagnetic locks as both codes, 1008.1.9.8 and 1008.1.9.9, detail these requirements which are very different from each other. The remainder of the change is editorial for consistency with other sections.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx.

### Cost Impact: None

### E82-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
-				1008.1.9.9-E-WILIAMS-ADHOC.doc

## E83 – 12

### 1008.1.9.9 (IFC [B] 1008.1.9.9)

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

### **Revise as follows:**

**1008.1.9.9 (IFC [B] 1008.1.9.9) Electromagnetically locked egress doors.** Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with <del>listed</del> hardware that incorporates a built-in switch and <del>meet the requirements below are installed and operated</del> in accordance with Items 1 through 6 below:

- 1. The listed hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
- 2. The listed hardware is capable of being operated with one hand.
- Operation of the listed hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
- 4. Loss of power to the listed hardware automatically unlocks the door.
- 5. Where panic or *fire exit hardware* is required by Section 1008.1.10, operation of the listed panic or *fire exit hardware* also releases the electromagnetic lock.
- 6. The components of the door locking system shall be listed in accordance with UL 294.

**Reason:** Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. After further review, BHMA members suggest leaving the name of the section as it is in the 2012 IBC. There is a slight change to Item 6 – 'the' instead of 'all'.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando AHC meeting for a final looksee at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

### Cost Impact: None.

### E83-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
•				1008.1.9.9-E-Woestman.doc

## E103-12 1011.6.3 (IFC [B] 1011.6.3)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

### **Revise as follows:**

**1011.6.3 (IFC [B] 1011.6.3) Power source.** *Exit* signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes in case of primary power loss, the sign illumination means shall be connected to an emergency power system provided from storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Chapter 27.

### Exceptions:

- 1. Approved exit sign illumination means that provide continuous illumination independent of external power sources for a duration of not less than 90 minutes, in case of primary power loss, are not required to be connected to an emergency electrical system.
- 2. Group I-2 hospital exit sign illumination shall not be provided by unit equipment battery only.

**Reason:** The IBC and IFC both have the same requirements. NFPA is less restrictive for UL listings of equipment. NFPA 70 is not referenced by IBC/IFC as does NFPA 99. IBC/IFC permit batteries.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

E103-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
•				1017 3-E-WILLIAMS-ADHOC doc

## E118-12 1017.3, 1017.5 (IFC [B] 1017.3, 1017.5)

Proponent: S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

### **Revise as follows:**

### SECTION 1017 AISLES

**1017.1 (IFC [B] 1017.1) General.** Aisles and aisle accessways serving as a portion of the exit access in the means of egress system shall comply with the requirements of this section. Aisles or aisle accessways shall be provided from all occupied portions of the exit access which contain seats, tables, furnishings, displays and similar fixtures or equipment. The required width of aisles shall be unobstructed.

Exception: Encroachments complying with Section 1005.7.

**1017.2 (IFC [B] 1017.2) Aisles in assembly spaces.** Aisles and aisle accessways serving a room or space used for assembly purposes shall comply with Section 1028.

**1017.3 (IFC [B] 1017.3) Aisles in Groups B and M.** In Group B and M occupancies, the minimum clear aisle width shall be determined by Section 1005.1 for the occupant load served, but shall not be less than 36 inches (914 mm) that required for corridors by Section 1018.2.

**Exception:** Nonpublic aisles serving less than 50 people and not required to be accessible by Chapter 11 need not exceed 28 inches (711 mm) in width.

### 1017.4 (IFC [B] 1017.4) Aisle accessways in Group M. (no change)

**1017.5 (IFC [B] 1017.5) Aisles in other than assembly spaces and Groups B and M.** In other than rooms or spaces used for assembly purposes and Group B and M occupancies, the minimum clear aisle width shall be determined by Section 1005.1 for the occupant load served, but shall not be less than <del>36</del> inches (914 mm) that required for corridors by Section 1018.2.

**Exception:** Nonpublic aisles serving less than 50 people and not required to be accessible by Chapter 11 need not exceed 28 inches (711 mm) in width.

**Reason:** This 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 3 open meetings and over 15 workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

Aisles are the main paths for means of egress through many types of spaces, such as between cubicles in open office plans, between merchandise pads in display areas in stores, between shelving in storage areas and between equipment in factories. While not confined by walls as corridors are, they should still be sized consistently with corridors so occupants could exit the building safely. The 2012 IBC has a Table in 1018.2 that provides minimum corridor widths in a clear manner. The exception currently in 1017.3 is repeated in 1017.5 for consistency between use groups.

BCAC has code changes in dealing with aisles in 1005, 1009, 1017 and 1028 as well as a transition between aisle stairs and stairways. The intent is for all four proposals to correlate; however this change can stand by itself.

Cost Impact: This code change proposal will not increase the cost of construction.

E118-12				
Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				1017.3-E-BAJNAI-BCAC.docx

## E119-12 1017.3, 1017.5 (IFC [B] 1017.3, 1017.5 )

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

### **Revise as follows:**

**1017.3 (IFC [B] 1017.3) Aisles in Groups B and M.** In Group B and M occupancies, the minimum clear *aisle* width shall be determined by Section 1005.1 for the *occupant load* served, but shall not be less than <del>36 inches (914 mm). that required for corridors by Section 1018.2.</del>

**Exception:** Nonpublic *aisles* serving less than 50 people and not required to be *accessible* by Chapter 11 need not exceed 28 inches (711 mm) in width.

**1017.5 (IFC [B] 1017.5)** Aisles in other than assembly spaces and Groups B and M. In other than rooms or spaces used for assembly purposes and Group B and M occupancies, the minimum clear *aisle* width shall be determined by Section 1005.1 for the *occupant load* served, but shall not be less than <del>36</del> <del>inches (914 mm). that required for corridors by Section 1018.2.</del>

**Reason:** The change for aisles in IBC Sections 1107.3 and 1017.5 is for coordination with the new corridor width Table 1018.2 and the language for ramp width in Section 1010.6.1. Also, aisles, corridors and ramps are all using the same capacity numbers in Section 1005.3.2. Aisle used for movement of patient beds should also meet 96".

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E119-12				
Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				1017.3-E-WILLIAMS-ADHOC.doc

## E120 – 12 1017.5 (IFC [B] 1017.5)

**Proponent:** Lynn W. Manley, Staff Architect, Illinois Department of Public Health (IDPH), Health Care Facilities and Programs (HCF&P) representing self (lynn.manley@illinois.gov)

### **Revise as follows:**

**1017.5 (IFC [B] 1017.5)** Aisles in hospitals, ambulatory care facilities and end stage renal dialysis units. The clear aisle width for hospitals, ambulatory care facilities and end stage renal dialysis units shall be not less than 44 inches (1118 mm). The clear aisle width of areas where patient movement is by wheelchair shall be not less than 60 inches (1524 mm). The clear aisle width of areas where patient movement is by gurney or bed shall be not less than 72 inches (1829 mm).

**Exception:** For areas that do not provide patient access, patient treatment or means of egress for patients, the minimum clear aisle width shall be determined by Section 1005.1, based upon the occupant load served, but shall not be less than 36 inches (914 mm).

**1017.5** <u>1017.6</u> (IFC [B] <u>1017.5</u> <u>1017.6</u>) Aisles in other than assembly spaces and Groups B and M <u>occupancies</u>. In other than rooms or spaces used for assembly purposes and Group B and M occupancies <u>not falling within the purview of Section 1017.2</u>, 1017.3 or 1017.5, the minimum clear aisle width shall be determined by Section 1005.1 for the occupant load served, but shall be not less than 36 inches (914 mm).

**Reason:** This change is proposed as a requirement for new construction. However, similar requirements may be proposed in the International Fire Code for existing facilities. The 36 inch and 44 inch dimensions are consistent with the requirements of NFPA 101 for the same occupancies. The 60 inch requirement is consistent with the minimum requirements of A.D.A. The 72 inch requirement is needed to provide space for patient movement by bed or gurney for means of egress but also for patient treatment where quick movement may be critical. The 72 inch clear dimension is really needed where aisles are provided for surgical suites, for emergency departments, intensive care units, etc. Most of these spaces are typically designed with 8'-0" aisles by experienced health care designers; however the aisles quickly become obstructed by furniture, equipment supplies and/or patients. The minimum 72" clear aisle dimension also provides space for patients during extreme emergency events.

This proposal is also intended to limit the use of aisles in new construction. Holding of patients or treatment of patients in aisles should not be permitted as the aisles are not designed for such and may violate several Medicare Requirements (Infection Control, Patient Privacy) along with NFPA 99. Patients should be held or treated in rooms, holding areas, niches or alcoves off of the aisles that are designed for patients and that have normal and emergency power electrical outlets and medical gas outlets that are required by NFPA 99)

**Cost Impact:** There is little of no additional cost for this requirement because it is consistent with current design practices. However, there is an additional cost to plan and provide additional space for the things that typically obstruct the aisle.

E120-12					
Public Hearing:	Committee:	AS	AM	D	
-	Assembly:	ASF	AMF	DF	
	3				1017.6 (NEW)-E-MANLEY.pdf.doc

## E122-12 1018.2 (IFC [B] 1018.2)

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

### **Revise as follows:**

**1018.2 (IFC [B] 1018.2) Width.** The minimum width of *corridors* specified in Table 1018.2 shall be as determined in Section 1005.1.

**Exception:** In Group I-2 occupancies, corridors are not required to have a clear width of 96 inches (2438 mm) in areas where there will not be stretcher or bed movement for access to care or as part of the defend in place strategy.

Occupancy	Width (min)
Any facilities not listed below	44 inches (1118 mm)
Access to and utilization of mechanical, plumbing or electrical systems or	24 inches (610 mm)
equipment	
With a required occupancy capacity less than 50	36 inches (914 mm)
Within a dwelling unit	36 inches (914 mm)
In Group E with a <i>corridor</i> having a required capacity of 100 or more	72 inches (1829 mm)
In corridors and areas serving gurney traffic in occupancies where patients	72 inches (1829 mm)
receive outpatient medical care, which causes the patient to be incapable of	
self-preservation	
Group I-2 in areas where required for bed movement	96 inches (2438 mm)

### TABLE 1018.2 (IFC TABLE [B] 1018.2) MINIMUM CORRIDOR WIDTH

**Reason:** Since hospitals typically include accessory spaces or non separated mixed use occupancies that are not patient care, the code official should have the clear ability to apply judgment in determining the appropriate means of egress components. For example a large assembly space may need certain Group requirements, while a mechanical space with no patient would not need an 8' corridor.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

**Cost Impact:** This proposal could help to decrease the cost of construction by allowing a more efficient use of building square footage.

E122-12				
Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
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## E123 – 12 Table 1018.2 (IFC [B] Table 1018.2)

Proponent: Sarah A. Rice, C.B.O., The Preview Group (srice@preview-group.com)

### **Revise as follows:**

**1018.2 (IFC [B] 1018.2) Width.** The minimum width of *corridors* specified in Table 1018.2 shall be as determined in Section 1005.1.

### TABLE 1018.2 (IFC [B] TABLE 1018.2) MINIMUM CORRIDOR WIDTH

OCCUPANCY	WIDTH (minimum)
Any facilities not listed below	44 inches
Access to and utilization of mechanical, plumbing or	24 inches
electrical systems or equipment	
With a required occupancy capacity less than 50	36 inches
Within a dwelling unit	36 inches
In Group E with a corridor having a required capacity of 100	72 inches
or more	
In corridors and areas serving gurney traffic in occupancies	72 inches
where patients receive outpatient medical care, which	
causes the patient to be incapable of self-preservation	
Group I-2 in areas other than within care suites, where	96 inches
required for bed movement	
Group I-2 within care suites	44 inches

For SI: 1 inch = 25.4 mm.

**Reason:** Over the past several cycles, the IBC has evolved to regulate the design of Group I-2 occupancies (hospitals and nursing care on a 24 hour basis) in a manner consistent with the regulations required for accreditation by the Centers for Medicare & Medicaid Services (CMS) and The Joint Commission (i.e., NFPA 101-2000; Life Safety Code). One of the biggest healthcare design features added in recent years is the concept of "care suites." By definition in IBC Section 202, a "care suite" is "A group of treatment rooms, care recipient sleeping rooms and their associated support rooms or spaces and circulation space within Group I-2 occupancies where staff are in attendance for supervision of all care recipients within the suite, and the suite is in compliance with the requirements of Section 407.4.3." Typical care suites are those where the patients need close supervision and monitoring, and include ICU areas. Because of the heighten awareness in the care suite with 24-hour supervision, some of the typical egress parameters are not necessary or applicable, in this case the mandate for the corridor in a care suite to be 96 inches wide. Within care suites patient movement is highly coordinated such that there is not the same level of unmonitored activity in the corridors, thus the extra width is not necessary.

### Cost Impact: None

E1	23-1	2		
E1	23-1	2		

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
-				1018.1-E-RICE.doc

## E125 – 12 1018.6 (IBC [F] 1018.6)

Proponent: Randall R. Dahmen, P.E. Wisconsin licensed Commercial Building Inspector, representing self

### **Revise as follows:**

**1018.6 (IFC [B] 1018.6) Corridor continuity.** Fire-resistance-rated corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms. Where the path of egress travel within a fire-resistance-rated corridor to the exit includes travel along unenclosed exit access stairways or ramps, the fire resistance-rating shall be continuous for the length of the stairway or ramp and for the length of the connecting corridor on the adjacent floor leading to the exit.

### Exceptions Exception:

- 1. Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.
- 2. Rooms or spaces that are adjacent and open to a fire-resistance-rated corridor, shall not be construed as intervening rooms; provided each room or space complies with the following:
  - 2.1 The space is constructed as required for corridors;
  - 2.2 The space is not occupied with Group H occupancy uses;
  - 2.3 The space does not contain any incidental uses listed in Table 509; and
  - 2.4 The space is arranged so as to not obstruct access to the required exits.

**Reason:** The original exception addressed areas typical of corridor access areas. The proposed addition addresses those spaces or rooms which may be adjacent and open to a fire rated corridor, and clarifies limitations of such general areas.

Cost Impact: The code change proposal will not increase the cost of construction.

### E125-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				1018.6-E-Dahmen.doc

## E149 – 12 1024.5 (IFC [B] 1024.5)

**Proponents:** Jack Bailey, One Lux Studio, representing The International Association of Lighting Designers (jbailey@oneluxstudio.com)

### **Revise as follows:**

**1024.5 (IFC [B] 1024.5) Illumination.** Where *photoluminescent* exit path markings are installed, they shall be provided with the minimum *means of egress* illumination required by Section 1006 not less than 1 footcandle (11 lux) of illumination for at least 60 minutes prior to periods when the building is occupied.

**Reason:** Stating the required illumination level here makes the code easier to use, and also makes it clear that illumination requirements for photoluminescent exit path markings are unrelated to illumination requirements for human vision. Furthermore, many people are confused by the two separate illumination requirements in Section 1006 (a **minimum** of 1 footcandle under normal power conditions, and an **average** of 1 footcandle under emergency power conditions), so a simple, clear statement in Section 1024.5 is better.

Cost Impact: The code change proposal will not increase the cost of construction.

E149-12	2
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Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
-				1024.5-E-Bailey.doc

## E151 – 12 1025.1, 1025.4 (IFC [B] 1025.1, 1025.4)

**Proponent:** Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

### **Revise as follows:**

**1025.1 (IFC [B] 1025.1) Horizontal exits.** *Horizontal exits* serving as an *exit* in a *means of egress* system shall comply with the requirements of this section. A *horizontal exit* shall not serve as the only *exit* from a portion of a building, and where two or more *exits* are required, not more than one-half of the total number of *exits* or total exit width shall be *horizontal exits*.

### Exceptions:

- 1. *Horizontal exits* are permitted to comprise two-thirds of the required *exits* from any building or floor area for occupancies in Group I-2.
- 2. Horizontal exits are permitted to comprise 100 percent of the exits required for occupancies in Group I-3. At least 6 square feet (0.6 m<sup>2</sup>) of accessible space per occupant shall be provided on each side of the horizontal exit for the total number of people in adjoining compartments. Every compartment from which egress originates shall not be required to have a stairway or door leading directly outside, provided the adjoining compartment area into which a horizontal exit leads has stairways or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates.

**1025.4 (IFC [B] 1025.4) Capacity of refuge area.** The refuge area of a *horizontal exit* shall be a space occupied by the same tenant or a public area and each such refuge area shall be adequate to accommodate the original *occupant load* of the refuge area plus the *occupant load* anticipated from the adjoining compartment. The anticipated *occupant load* from the adjoining compartment shall be based on the capacity of the *horizontal exit* doors entering the refuge area. The capacity of the refuge area shall be computed based on a *net floor area* allowance of 3 square feet (0.2787 m2) for each occupant to be accommodated therein.

**Exception:** The *net floor area* allowable per occupant shall be as follows for the indicated occupancies:

- 1. Six square feet (0.6 m<sup>2</sup>) per occupant for occupancies in Group I-3.
- 2. Fifteen square feet (1.4 m<sup>2</sup>) per occupant for ambulatory occupancies in Group I-2.
- 3. Thirty square feet (2.8 m<sup>2</sup>) per occupant for nonambulatory occupancies in Group I-2.

The refuge area into which a *horizontal exit* leads shall be provided with *exits* adequate to meet the occupant requirements of this chapter, but not including the added *occupant load* imposed by persons entering it through *horizontal exits* from other areas. At least one refuge area exit shall lead directly to the exterior or to an *interior exit stairway* or *ramp*.

**Exception:** The adjoining compartment shall not be required to have a *stairway* or door leading directly outside, provided the refuge area into which a *horizontal exit* leads has *stairways* or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates.

**Reason:** This Exception was created as part of E136-07/08. The report from that code cycle includes an analysis section that states: "An errata has been issued for section 1022.1, Exception 2. In the 2000 IBC this section had two paragraphs under the exception. The 2003 IBC and 2006 IBC show the second paragraph of Exception 2 moved out as a main section paragraph. There was no code change proposal to relocate this paragraph. Therefore, an errata has been issued for the 2003 and 2006 IBC to locate the paragraph starting "Every fire compartment...." As part of Exception 2."

The original language that was subject to the errata prior to E136 read as follows: "Every fire compartment for which credit is allowed in connection with a horizontal exit shall not be required to have a stairway or door leading directly outside, provided the adjoining fire compartments have stairways or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates."

The proponent stated in the reason associated with E136 with regard to the paragraph above: "Secondly, the second paragraph of section 1022.1 currently contains some confusing language referencing a fire compartment credit concept that is not recognized anywhere in Chapter 110. The paragraph has been rewritten in more contemporary language while maintaining the original technical intent. Additionally, based on IBC errata, the provision in question was originally intended to be an exception. Accordingly, it has been retained as an exception; however, it also been placed in context following the proposed second paragraph of section 1022.4. Approval of this proposal will clarify the intent of the code and assist users in the proper determination of horizontal exit technical requirements."

This code change merely deletes the revised E136 exception language (stated as an Exception to the second paragraph of Section 1025.4) and places it back as the second half of the exception 2 to Section 1025.1 (with minor changes to clarify the original intent of language prior to E136 and after the errata was applied). This location is consistent with the ICC errata and fits in from a context standpoint as the language refers to space on each side of the exit for adjoining compartments. In order to maintain this original intent the relocated exception language now starts off with "Every compartment from which egress originates..." in place of the pre E136 language "Every compartment for which credit is allowed in connection with a horizontal exit..." and the language follows by replacing "provided the adjoining compartments" from the pre E136 language with "provided the adjoining compartment area into which a *horizontal exit* leads...." This retains the original intent and clarifies the horizontal exits section which was also the intent of the E136-07/08 code change. The relocated and updated language (now in the second half of Section 1025.1, exception 2) as revised in this code change now properly describes the only situation where horizontal exits are permitted to comprise 100 percent of the exits in Group I-3.

Cost Impact: This code change does not increase the cost of construction.

### E151-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				1025.1-E-Richardson.doc

## E152 – 12 1025.4 (IFC [B] 1025.4)

**Proponent:** Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

### **Revise as follows:**

**1025.4 (IFC [B] 1025.4)** Capacity of Refuge area. The refuge area of a *horizontal exit* shall be a space occupied by the same tenant or a public area and each such refuge area shall be adequate to accommodate the original occupant load of the refuge area plus the occupant load anticipated from the adjoining compartment. The anticipated occupant load from the adjoining compartment shall be based on the capacity of the *horizontal exit* doors entering the refuge area. The capacity shall be determined by dividing the horizontal exit door width by 0.20 inches (5.1 mm) per occupant.

**Exception**: In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the anticipated occupant load from the adjoining compartment shall be determined based on the anticipated portion of the occupant load as normally distributed but not less the capacity determined in this section for the horizontal exit door.

<u>1025.4.1 (IFC [B] 1025.4.1) Capacity.</u> The capacity of the refuge area shall be computed based on a *net floor area* allowance of 3 square feet  $(0.2787 \text{ m}^2)$  for each occupant to be accommodated therein.

**Exception:** The *net floor area* allowable per occupant shall be as follows for the indicated occupancies:

- 1. Six square feet (0.6 m<sup>2</sup>) per occupant for occupancies in Group I-3.
- 2. Fifteen square feet (1.4 m<sup>2</sup>) per occupant for ambulatory occupancies in Group I-2.
- 3. Thirty square feet (2.8 m<sup>2</sup>) per occupant for nonambulatory occupancies in Group I-2.

**1025.4.2 (IFC 1025.4.2) Number of exits.** The refuge area into which a *horizontal exit* leads shall be provided with *exits* adequate to meet the occupant requirements of this chapter, but not including the added *occupant load* imposed by persons entering it through *horizontal exits* from other areas. At least one refuge area exit shall lead directly to the exterior or to an *interior exit stairway* or *ramp*.

**Exception:** The adjoining compartment shall not be required to have a *stairway* or door leading directly outside, provided the refuge area into which a *horizontal exit* leads has *stairways* or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates.

**Reason:** This Exception was created as part of E136-07/08. The report from that code cycle includes an analysis section that states: "An errata has been issued for section 1022.1, Exception 2. In the 2000 IBC this section had two paragraphs under the exception. The 2003 IBC and 2006 IBC show the second paragraph of Exception 2 moved out as a main section paragraph. There was no code change proposal to relocate this paragraph. Therefore, an errata has been issued for the 2003 and 2006 IBC to locate the paragraph starting "Every fire compartment...." As part of Exception 2."

The original language that was subject to the errata prior to E136 read as follows: "Every fire compartment for which credit is allowed in connection with a horizontal exit shall not be required to have a stairway or door leading directly outside, provided the adjoining fire compartments have stairways or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates."

The proponent stated in the reason associated with E136 with regard to the paragraph above: "Secondly, the second paragraph of section 1022.1 currently contains some confusing language referencing a fire compartment credit concept that is not recognized anywhere in Chapter 110. The paragraph has been rewritten in more contemporary language while maintaining the original technical intent. Additionally, based on IBC errata, the provision in question was originally intended to be an exception. Accordingly, it has been retained as an exception; however, it also been placed in context following the proposed second paragraph of section 1022.4. Approval of this proposal will clarify the intent of the code and assist users in the proper determination of horizontal exit technical requirements."

This code change merely deletes the revised E136 exception language (stated as an Exception to the second paragraph of Section 1025.4) and places it back as the second half of the exception 2 to Section 1025.1 (with minor changes to clarify the original

intent of language prior to E136 and after the errata was applied). This location is consistent with the ICC errata and fits in from a context standpoint as the language refers to space on each side of the exit for adjoining compartments. In order to maintain this original intent the relocated exception language now starts off with "Every compartment from which egress originates..." in place of the pre E136 language "Every compartment for which credit is allowed in connection with a horizontal exit..." and the language follows by replacing "provided the adjoining compartments" from the pre E136 language with "provided the adjoining compartments area into which a *horizontal exit* leads...." This retains the original intent and clarifies the horizontal exits section which was also the intent of the E136-07/08 code change now properly describes the only situation where horizontal exits are permitted to comprise 100 percent of the exits in Group I-3.

Splitting the section into parts is editorial. Where the exceptions are applicable will be clearer.

Cost Impact: This code change does not increase the cost of construction.

### E152-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				1025.4-E-Richardson.doc

## E179-12 1104.3, 1107.3, 1107.5.3.1

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

### **Revise as follows:**

**1104.3 Connected spaces.** When a building or portion of a building is required to be *accessible*, an *accessible route* shall be provided to each portion of the building, to *accessible* building entrances connecting *accessible pedestrian walkways* and the *public way*.

### Exceptions:

- 1. In a building, room or space used for assembly purposes with *fixed seating*, an *accessible route* shall not be required to serve levels where *wheelchair spaces* are not provided.
- In Group I-2 facilities, doors to sleeping units shall be exempted from the requirements for maneuvering clearance at the room side provided the door is a minimum of 44 inches (1118 mm) in width.

**1107.3** Accessible spaces. Rooms and spaces available to the general public or available for use by residents and serving *Accessible units*, *Type A units* or *Type B units* shall be *accessible*. *Accessible* spaces shall include toilet and bathing rooms, kitchen, living and dining areas and any exterior spaces, including patios, terraces and balconies.

### Exceptions:

- 1. Recreational facilities in accordance with Section 1109.15.
- 2. In Group I-2 facilities, doors to *slooping units* shall be exempted from the requirements for maneuvering clearance at the room side provided the door is a minimum of 44 inches (1118 mm) in width.

**1107.5.3 Group I-2 hospitals.** Accessible units and Type B units shall be provided in general-purpose hospitals, psychiatric facilities and detoxification facilities of Group I-2 occupancies in accordance with Sections 1107.5.3.1 and 1107.5.3.2.

**1107.5.3.1 Accessible units.** At least 10 percent, but not less than one, of the *dwelling units* and *sleeping units* shall be *Accessible units*.

# **Exception:** Entry doors to Accessible dwelling or sleeping units shall not be required to provide the maneuvering clearance beyond the latch side of the door.

**Reason:** The intent of the proposal is for coordination with the 2010 ADA Standard of Accessible Design for hospital doors. The 2010 ADA includes the following.

**404.2.4 Maneuvering Clearances.** Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

**EXCEPTION:** Entry doors to hospital patient rooms shall not be required to provide the clearance beyond the latch side of the door.

The current IBC text is written for all Group I-2 while the ADA requirements have exceptions for hospitals. The exception for the maneuvering clearances do not match ADA. By relocating the requirement as an exception specifically for the rooms which are required to be Accessible (Section 1107.5.3.1), it is clear that the entrances to the Accessible patient sleeping rooms are the rooms that can use the exception, as well making it clear that the intent is to allow these rooms to not meet the unit entry requirements in ICC A117.1 Section 1002.5.

Patients in hospitals are typically moved around the hospitals on stretchers or gurney's and if not, they are accompanied by staff when being moved in wheelchairs. The ADA recognized this difference in hospitals and included an exception. At this time, the ICC A117.1 does not include an exception specific to hospital room doors.

This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

#### Cost Impact: None

#### E179-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
•				1104.3-E-Williams-Adhoc.docx

# E199-12

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

### **Revise as follows:**

**1109.2 Toilet and bathing facilities.** Each toilet room and bathing room shall be *accessible*. Where a floor level is not required to be connected by an *accessible route*, the only toilet rooms or bathing rooms provided within the facility shall not be located on the inaccessible floor. At least one of each type of fixture, element, control or dispenser in each *accessible* toilet room and bathing room shall be *accessible*.

### **Exceptions:**

- 1. In toilet rooms or bathing rooms accessed only through a private office, not for *common* or *public use* and intended for use by a single occupant, any of the following alternatives are allowed:
  - 1.1 Doors are permitted to swing into the clear floor space, provided the door swing can be reversed to meet the requirements in ICC A117.1;
  - 1.2. The height requirements for the water closet in ICC A117.1 are not applicable;
  - 1.3. Grab bars are not required to be installed in a toilet room, provided that reinforcement has been installed in the walls and located so as to permit the installation of such grab bars; and
  - 1.4. The requirement for height, knee and toe clearance shall not apply to a lavatory.
- 2. This section is not applicable to toilet and bathing rooms that serve *dwelling units* or *sleeping units* that are not required to be *accessible* by Section 1107.
- 3. Where multiple single-user toilet rooms or bathing rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be *accessible*.
- 4. Where no more than one urinal is provided in a toilet room or bathing room, the urinal is not required to be *accessible*.
- 5. Toilet rooms <u>or bathing rooms</u> that are part of critical care or intensive care patient sleeping rooms <u>serving Accessible units</u> are not required to be *accessible*.
- 6. <u>Toilet rooms or bathing rooms that serve an Accessible sleeping unit designed for a bariatric</u> patient are not required to comply with the toilet room and bathing room requirement in ICC <u>A117.1</u>.
- Where toilet facilities are primarily for children's use, required accessible water closets, toilet compartments and lavatories shall be permitted to comply with children's provision of ICC A117.1.

**Reason:** The intent of the new exception 6 is to address rooms specifically designed for bariatric patients. This issue is not addressed in new ADA requirements. The physical size of bariatric patients would not allow for water closets to be located with the center line 16" to 18" from the wall. In addition, if a nurse needs to get next to a patient to offer assistance in rising or sitting down, there is no space between the toilet and the wall. There is also a problem with the size of 36" x 36" for transfer showers. Designing for bariatric patients will result in toilet rooms and bathing rooms that are accessible for these patients, just not bathrooms that are accessible in accordance with ICC A117.1.

While Exception 2 would exempt the toilet rooms in the 90% of the hospital rooms not required to be accessible, the additional language in Exception 5 would reinforce that intent.

Providing the Accessible units in other areas of the hospital is no longer an option. The Department of Justice regulations state that the Accessible rooms must be distributed by type of medical specialty provided in the hospital.

**DOJ regulations 35.151 (h) and 36.406 (g) Medical care facilities.** Medical care facilities that are subject to this section shall comply with the provisions of the 2010 Standards applicable to medical care facilities, including, but not limited to, sections 223 and 805. In addition, medical care facilities that do not specialize in the treatment of conditions that affect mobility shall disperse the accessible patient bedrooms required by section 223.2.1 of the 2010 Standards in a manner that is proportionate by type of medical speciality.

This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives.

The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx.

### Cost Impact: None

### E199-12

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
<b>,</b>				1109.2-E-WILLIAMS-ADHOC.doc

## G32 – 12

PART I – INTERNATIONAL BUILDING CODE 202, 308.1, 308.4, 308.7 (NEW), 404.5, 425 (NEW), Table 503, 504.2, Table 509, 710.8, 712.1.8, 713.14.1, 717.5.5, Table 1016.2, Table 1018.1, Table 1018.2, 1018.4, 1107.5.3.1, 3304.8 (NEW), 3311.3 (NEW); (IFC [B] 202, Table 1016.2, Table 1018.1, Table 1018.2, 1018.4)

### PART II – INTERNATIONAL FIRE CODE

IFC 903.2.6, 903.3.2, 907.2.6, 907.2.6.2, 907.2.6.4 (NEW), 909.4.6; (IBC [F] 425.5, 425.6, 425.7, 903.2.6, 903.3.2, 907.2.6, 907.2.6.2, 907.2.6.4 (NEW), 909.4.6)

**Proponent:** Jeff Bresette, FP&C Consultants, Inc.

# THIS IS A 2 PART CODE CHANGES. BOTH PARTS WILL BE HEARD BY HEARD BY THE IBC GENERAL CODE COMMITTEE AS 2 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THE IBC GENERAL COMMITTEE.

Revise as follows:

### SECTION 202 DEFINITIONS

**CARE SUITE**. In Group I-5 occupancies, a group of treatment rooms, care recipient sleeping rooms and the support rooms or spaces and circulation space within the suite where staff are in attendance for supervision of all care recipients within the suite, and the suite is in conformance with the requirements of Section 425.4.2.

**CARE SUITE.** <u>Within Group I-2 occupancies</u>, a group of treatment rooms, care recipient sleeping rooms and their associated support rooms or spaces and circulation space within Group I-2 occupancies where staff are in attendance for supervision of all care recipients within the suite, and the suite is in compliance with the requirements of Section 407.4.3.

**DEFEND IN PLACE.** A method of emergency response that engages building components and trained staff to provide occupant safety during an emergency. Emergency response involves remaining in place, relocating within the building, or both, without evacuating the building.

### Revise as follows:

**308.1 Institutional Group I.** Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which care or supervision is provided to persons who are or are not capable of self-preservation without physical assistance or in which persons are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-3, or I-4 or I-5.

**308.4 Institutional Group I-2.** This occupancy shall include buildings and structures used for *medical care custodial care* on a 24-hour basis for more than five persons who are *incapable of self\_preservation*. This group shall include, but not be limited to, the following:

Foster care facilities Detoxification facilities Hospitals Nursing homes Psychiatric hospitals **308.7 Group I-5, Hospitals.** This occupancy shall include buildings and structures used for *medical care*, on a 24-hour basis for more than five persons who are *incapable of self-preservation*. This group shall include, but not be limited to, the following:

Hospitals and psychiatric hospitals.

### **Revise as follows:**

**404.5 Smoke control.** A smoke control system shall be installed in accordance with Section 909.

**Exception:** In other than Groups I-2 and I-5, smoke control is not required for *atriums* that connect only two *stories*.

### SECTION 425 GROUP I-5 HOSPITALS AND PSYCHIATRIC HOSPITALS

**425.1 General.** Occupancies in Group I-5 shall comply with the provisions of Sections 425.1 through 425.9 and other applicable provisions of this code.

**425.2 Corridors.** *Corridors* in occupancies in Group I-5 shall be continuous to the *exits* and separated from other areas in accordance with Section 424.3 except spaces conforming to Sections 425.2.1 through 425.2.3.

**425.2.1** Areas open to corridor unlimited area shall be permitted to be open to a *corridor*, provided there is no treatment, patient sleeping or hazardous areas open to the *corridor* and are constructed as required for *corridors* and where all of the following criteria are met:

- 1. The open space is protected by an automatic fire detection system installed in accordance with Section 907.
- 2. The corridors onto which the spaces open, in the same smoke compartment, are protected by an automatic fire detection system installed in accordance with Section 907, or the smoke compartment in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.
- 3. The space is arranged so as not to obstruct the exit access to the required exits.

**425.2.2 Care providers' stations.** Spaces for care providers', supervisory staff, doctors' and nurses' charting, communications and related clerical areas shall be permitted to be open to the *corridor*, when such spaces are constructed as required for *corridors*.

**425.2.3 Gift shops.** Gift shops and associated storage less than 500 square feet (46.5 m<sup>2</sup>) in area shall be permitted to be open to the *corridor* provided the gift shop and storage areas are fully sprinklered and storage areas are protected in accordance with Section 509.4.

**425.3 Corridor walls.** *Corridor* walls shall be constructed as smoke partitions in accordance with Section <u>711.</u>

**425.3.1 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.

**425.3.2 Locking devices.** Locking devices that restrict access to the patient room from the *corridor*, and that are operable only by staff from the *corridor* side, shall not restrict the *means of egress* from the patient room except for patient rooms in mental health facilities.

**425.4 Means of egress.** Group I-5 occupancies shall be provided with a means of egress complying with Chapter 10 and Sections 407.4.1 through 407.4.3.6.2 and this section. The fire safety and evacuation plans provided in accordance with Section 1001.4 shall identify the building components necessary to support a *defend in place* emergency response in accordance with Sections 404 and 408 and the International Fire Code.

**425.4.1 Travel distance.** The travel distance between any point in a Group I-5 occupancy sleeping room, not located in a *care suite*, and an *exit access* door in that room shall be not greater than 50 feet (15 240 mm).

**425.4.2 Group I-5 care suites.** *Care suites* in Group I-5 shall comply with Section 425.4.2.1 through 425.4.2.2 and either Section 425.4.2.3 or 425.4.2.4.

**425.4.2.1 Exit access through care suites.** *Exit access* from all other portions of a building not classified as a care suite shall not pass through a *care suite*. In a *care suite* required to have more than one *exit*, one *exit access* is permitted to pass through an adjacent *care suite* provided all of the other requirements of Sections 425.4 and 1014.2 are satisfied.

**425.4.2.2 Separation.** *Care suites* shall be separated from other portions of the building by a smoke partition complying with Section 710.

**425.4.2.3 Access to Corridor.** Movement from habitable rooms shall not require passage through no more than 3 doors and 100 feet (30 480 mm) travel distance within the suite.

**Exception:** The travel distance shall be permitted to be increased to 125 feet (38 100 mm) where an automatic smoke detection system is provided throughout the *care suite* and installed in accordance with NFPA 72.

**425.4.2.4 Care suites containing sleeping room areas.** Sleeping rooms shall be permitted to be grouped into *care suites* if one of the following conditions is met:

- 1. The care suite is not used as an exit access for more than eight care recipient beds.
- 2. The arrangement of the *care suite* allows for direct and constant visual supervision into the sleeping rooms by care providers.
- 3. An automatic smoke detection system is provided in the sleeping rooms and installed in accordance with NFPA 72.

**425.4.2.4.1** Area. Care suites containing sleeping rooms shall be not greater than 7,500 square feet (696  $\underline{m}^2$ ) in area.

**Exception:** Care suites containing sleeping rooms shall be permitted to be not greater than 10,000 sq feet (929 m<sup>2</sup>) in area where an automatic smoke detection system is provided throughout the care suite and installed in accordance with NFPA 72.

**425.4.2.4.2 Exit access.** Any sleeping room, or any *care suite* that contains sleeping rooms, of more than 1,000 square feet (93 m<sup>2</sup>) shall have no fewer than two *exit access* doors from the care suite located in accordance with Section 1015.2.

**425.4.2.5 Care suites not containing sleeping rooms.** Areas not containing sleeping rooms, but only treatment areas and the associated rooms, spaces or circulation space shall be permitted to be grouped into *care suites* and shall conform to the limitations in Section 425.4.2.5.1 and 425.4.2.5.2.

**425.4.2.5.1 Area.** *Care suites* of rooms, other than sleeping rooms, shall have an area not greater than 10,000 square feet (929 m<sup>2</sup>).

**425.4.2.5.2 Exit access.** *Care suites*, other than sleeping rooms, with an area of more than 2,500 square feet (232 m<sup>2</sup>) shall have no fewer than two *exit access* doors from the *care suite* located in accordance with Section 1015.2.

**425.4 Smoke barriers.** Smoke barriers shall be provided to subdivide every story used by persons receiving care, treatment or sleeping and to divide other stories with an occupant load of 50 or more persons, into no fewer than two smoke compartments. Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2,092 m<sup>2</sup>) in Group I-2 occupancies and not more than 40,000 square feet in Group I-5 hospitals and the travel distance from any point in a smoke compartment to a smoke barrier door shall be not greater than 200 feet (60,960 mm). The smoke barrier shall be in accordance with Section 709.

**Exception:** Atriums provided with smoke control complying with Section 404 are not limited in area for a smoke compartment.

**425.4.1 Refuge area.** Refuge areas shall be provided within each *smoke* compartment. The size of the refuge area shall accommodate the occupants and care recipients from the adjoining *smoke compartments*. Where a *smoke compartment* is adjoined by two or more *smoke compartments* the minimum area of the refuge area shall accommodate the largest *occupant load* of the adjoining compartments. The size of the refuge area shall provide the following:

- 1. Not less than 30 net square feet (2.8 m<sup>2</sup>) for each care recipient confined to bed or gurney.
- Not less than 6 square feet (0.6 m<sup>2</sup>) for each ambulatory care recipient not confined to bed or gurney and for other occupants.

**425.4.2 Independent egress.** A means of egress shall be provided from each smoke compartment created by *smoke barriers* without having to return through the smoke compartment from which means of egress originated.

**425.4.3 Horizontal assemblies.** *Horizontal assemblies* supporting *smoke barriers* required by this section shall be designed to resist the movement of smoke and shall comply with Section 711.9.

(For Sections 425.5 through 425.7 see Part II)

**425.8 Hyperbaric facilities.** Hyperbaric facilities in Group I-5 occupancies shall meet the requirements contained in Chapter 20 of NFPA 99.

**425.9 Additions.** Additions shall be separated from any existing structure, which is not conforming to the provisions for new construction, by fire walls per Table 706.4 or fire barriers per Table 707.3.10 with not less than 2-hour fire resistance construction.

**425.10 Elevator Lobbies.** Elevator lobbies required by Sections 711.9 and 713.14.1 shall comply with all of the following:

- 1. Be a minimum of 120 square feet (11.1 m<sup>2</sup>) in area.
- 2. Constructed as required for smoke partitions in accordance with Section 710.

### **Revise as follows:**

## TABLE 503 ALLOWABLE BUILDING HEIGHTS AND AREAS<sup>a, b</sup>

Building height limitations shown in feet above grade plane. Story limitations shown as stories above grade plane.

		TYPE OF CONSTRUCTION										
		TYF	PEI	TYPE II		ТҮРЕ ІІ ТҮ		TYP	PE III TYPE IV		TYPE V	
	HEIGHT (feet)	Α	В	Α	В	Α	В	НТ	Α	В		
		STORIES (S)										
GROUP	AREA (A)											
<u>I-5</u>	SA		<u>4</u> UL	<u>2</u> <u>15,000</u>	<u>1</u> <u>11,000</u>	<u>1</u> 12,000	<u>NP</u> NP	<u>1</u> <u>12,000</u>	<u>1</u> 9,500	<u>NP</u> NP		

Building area limitations shown in square feet, as determined by the definition of "Area, building," per story

(Portions of table not shown remain unchanged)

**504.2** Automatic sprinkler system increase. Where a building is equipped throughout with an *approved automatic sprinkler system* in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum *building height* is increased by 20 feet (6096 mm) and the maximum number of *stories* is increased by one. These increases are permitted in addition to the *building area* increase in accordance with Section 903.3.1.2, the value specified in Table 503 for maximum *building height* is increased by 20 feet (6096 mm) and the maximum number of *stories* is increased by one. These increases are permitted in addition to the *building area* increase in accordance with Sections 506.2 and 506.3. For Group R buildings equipped throughout with an *approved automatic sprinkler system* in accordance with Section 903.3.1.2, the value specified in Table 503 for maximum *building height* is increased by 20 feet (6096 mm) and the maximum number of *stories* is increased by one, but shall not exceed 60 feet (18 288 mm) or four *stories*, respectively.

**Exception:** The use of an *automatic sprinkler system* to increase *building heights* shall not be permitted for the following conditions:

- 1. Buildings, or portions of buildings, classified as a Group I-2 and I-5 occupancy occupancies of Type IIB, III, IV or V construction.
- 2. Buildings, or portions of buildings, classified as a Group H-1, H-2, H-3 or H-5 occupancy.
- 3. Buildings where an *automatic sprinkler system* is substituted for fire-resistance rated construction in accordance with Table 601, Note d.

ROOM OR AREA	SEPARATION AND/OR PROTECTION					
Furnace room where any piece of equipment is over 400,000 Btu per hour input.	1 hour or provide automatic sprinkler system					
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic sprinkler system					
Refrigerant machinery room	1 hour or provide automatic sprinkler system					
Hydrogen cutoff rooms, not classified as Group H	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A, E, I and R occupancies					
Incinerator rooms	2 hours and provide automatic sprinkler system					
Paint shops, not classified as Group H, located in	2 hours; or 1 hour and provide automatic					
In Group E occupancies, Laboratories and vocational shops, not classified as Group H, located in Group E or I-2 occupancy	1 hour or provide automatic sprinkler system					
In Group I-2 and I-5 occupancies, laboratories not classified as a Group H	1 hour and provide automatic sprinkler system					
In ambulatory care facilities, laboratories not classified as a Group H	1 hour or provide automatic sprinkler system					
Laundry rooms over 100 square feet	1 hour or provide automatic sprinkler system					

### TABLE 509 INCIDENTAL USES

ROOM OR AREA	SEPARATION AND/OR PROTECTION
In Group I-2 and I-5 occupancies, laundry rooms over	1 bour
<u>100 square feet</u>	
Group I-3 cells and Group I-2 and I-5 patient rooms	1 bour
equipped with padded surfaces	
In Group I-2 and I-5, physical plant maintenance	1 bour
<u>shops.</u>	
In Group I-2 and I-5 or ambulatory care facilities,	
Waste and linen collection rooms with containers that	1 hour
have an aggregate volume of 10 cubic feet or greater	
In other than ambulatory care facilities and Group I-2	
and I-5, Waste and linen collection rooms over 100	1 hour or provide automatic sprinkler system
square feet	
In Group I-2 and I-5 or ambulatory care facilities,	1 bour
storage rooms greater than 100 square feet	
Stationary storage battery systems having a liquid	
electrolyte capacity of more than 50 gallons for	
flooded lead-acid, nickel cadmium or VRLA, or more	1 hour in Group B, F, M, S and U occupancies; 2
than 1,000 pounds for lithium-ion and lithium metal	hours in Group A, E, I, and R occupancies
polymer used for facility standby power, emergency	
power or uninterruptable power supplies	

### **Revise as follows:**

**710.8 Ducts and air transfer openings.** The space around a duct penetrating a smoke partition shall be filled with an *approved* material to limit the free passage of smoke. Air transfer openings in smoke partitions shall be provided with a *smoke damper* complying with Section 717.3.2.2.

### Exceptions:

- <u>1.</u> Where the installation of a *smoke damper* will interfere with the operation of a required smoke control system in accordance with Section 909, *approved* alternative protection shall be utilized.
- 2. Smoke dampers shall not be required in duct penetrations of smoke partitions in fully ducted heating, ventilating and air-conditioning systems and the mechanical system will shut down upon detection of smoke and in buildings provided with an *automatic sprinkler system* complying with Sections 903.3.1.1 and 903.3.2.

**712.1.8 Two-story openings.** In other than Groups I-2 and I-3, a floor opening that is not used as one of the applications listed in this section shall be permitted if it complies with all of the items below.

- 1. Does not connect more than two stories.
- 2. Does not contain a stairway or ramp required by Chapter 10.
- 3. Does not penetrate a horizontal assembly that separates fire areas or smoke barriers that separate smoke compartments.
- 4. Is not concealed within the construction of a wall or a floor/ceiling assembly. 5. Is not open to a corridor in Group I and R occupancies.
- 6. Is not open to a corridor on nonsprinklered floors.
- 7. Is separated from floor openings and air transfer openings serving other floors by construction conforming to required shaft enclosures.

**713.14.1 Elevator lobby.** An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three *stories*. The lobby enclosure shall separate the elevator shaft enclosure doors from each floor by *fire partitions*. In addition to the requirements in Section 708 for *fire partitions*, doors protecting openings in the elevator lobby enclosure walls shall also comply with Section

716.5.3 as required for corridor walls and penetrations of the elevator lobby enclosure by ducts and air transfer openings shall be protected as required for *corridors* in accordance with Section 717.5.4.1. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within this code. Elevator lobbies within Group I-5 occupancies shall comply with Section 425.10

### Exceptions:

1. through 7. (Exceptions not shown remain unchanged)

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

### **Exceptions:**

- 1. Smoke dampers are not required where the openings in ducts are limited to a single smoke compartment and the ducts are constructed of steel.
- 2. Smoke dampers shall not be required in Ambulatory Care Facilities and Groups I-2 and I-5 occupancies where the HVAC is fully ducted in accordance with Section 603 of the International Mechanical Code and where buildings are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and equipped with quick response sprinklers in accordance with Section 903.3.2.

### **Revise as follows:**

EXIT ACCESS TRAVEL DISTANCE <sup>a</sup>				
	WITHOUT SPRINKLER	WITH SPRINKLER		
	SYSTEM	SYSTEM		
OCCUPANCY	(feet)	(feet)		
A, E, F-1, M, R, S-1	200	250 <sup>b</sup>		
l-1	Not Permitted	250 <sup>°</sup>		
В	200	300 <sup>c</sup>		
F-2, S-2, U	300	400 <sup>c</sup>		
H-1	Not Permitted	75 <sup>°</sup>		
H-2	Not Permitted	100 <sup>c</sup>		
H-3	Not Permitted	150 <sup>°</sup>		
H-4	Not Permitted	175 <sup>°</sup>		
H-5	Not Permitted	200 <sup>c</sup>		
I-2, I-3, I-4, I-5	Not Permitted	200 <sup>c</sup>		

# TABLE 1016.2 (IFC [B] 1016.2)

For SI: 1 foot = 304.8 mm.

See the following sections for modifications to exit access travel distance requirements: а.

Section 402.8: For the distance limitation in malls.

Section 404.9: For the distance limitation through an atrium space.

Section 407.4: For the distance limitation in Group I-2.

Sections 408.6.1 and 408.8.1. For the distance limitations in Group I-3.

Section 411.4: For the distance limitation in special amusement buildings.

Section 425.3: For the distance limitation in Group I-5.

Section 1015.4: For the distance limitation in refrigeration machinery rooms.

Section 1015.5: For the distance limitation in refrigerated rooms and spaces.

Section 1021.2: For buildings with one exit.

Section 1028.7: For increased limitation in assembly seating.

Section 1028.7: For increased limitation for assembly open-air seating.

Section 3103.4: For temporary structures.

Section 3104.9: For pedestrian walkways.

b. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.2.

C. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

### TABLE 1018.1 (IFC [B] TABLE 1018.1) CORRIDOR FIRE-RESISTANCE RATING

		REQUIRED FIRE-RESISTANCE RATING (hours)		
OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	Without sprinkler system	With sprinkler system	
I-2 <sup>a</sup> , I-4, <u>I-5</u>	All	Not permitted	0	

(Portions of Table not shown remain unchanged)

### TABLE 1018.2 (IFC [B] TABLE 1018.2) MINIMUM CORRIDOR WIDTH

Occupancy	Width (minimum)
Any facilities not listed below	44 inches
Access to and utilization of mechanical, plumbing or electrical systems or equipment	24 inches
With a required occupancy capacity less than 50	36 inches
Within a dwelling unit	36 inches
In Group E with a <i>corridor</i> having a required capacity of 100 or more	72 inches
In <i>corridors</i> and areas serving gurney traffic in occupancies where patients receive outpatient medical care, which causes the patient to be incapable of <i>self-preservation</i>	72 inches
Group I-2 and I-5 in areas where required for bed movement	96 inches

For SI: 1 inch = 25.4 mm.

**1018.4 (IFC [B] 1018.4) Dead ends.** Where more than one *exit* or *exit access doorway* is required, the *exit access* shall be arranged such that there are no dead ends in *corridors* more than 20 feet (6096 mm) in length.

### **Exceptions:**

- 1. In occupancies in Group I-3 of Occupancy Condition 2, 3 or 4 (see Section 308.5), the dead end in a *corridor* shall not exceed 50 feet (15 240 mm).
- 2. In occupancies in Groups B, E, F, I-1, M, R-1, R-2, R-4, S and U, where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the length of the dead-end *corridors* shall not exceed 50 feet (15 240 mm).
- 3. A dead-end *corridor* shall not be limited in length where the length of the dead-end *corridor* is less than 2.5 times the least width of the dead-end *corridor*.
- 4. In occupancies in Group I-5 occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Sections 903.3.1.1 and 903.3.2 the length of the dead-end corridor shall not exceed 30 feet (9 144 mm).

### **Revise as follows:**

**1107.5.3 Group I-2 hospitals.** Accessible units and Type B units shall be provided in general-purpose hospitals, psychiatric facilities and detoxification facilities of Group I-2 and Group I-5 occupancies in accordance with Sections 1107.5.3.1 and 1107.5.3.2.

**1107.5.3.1 Accessible units.** At least 10 percent, but not less than one, of the *dwelling units* and *sleeping units* shall be *Accessible units*.

**Exception:** Entry doors to Accessible dwelling or sleeping units shall not be required to provide the maneuvering clearance beyond the latch side of the door.

### **Revise as follows:**

**3304.8 Group I-5.** For buildings employing a *defend in place* method in Group I-5 occupancies, an on-site fire watch shall be provided in accordance with the Section 901.7 of the *International Fire Code*.

<u>3311.3 Group I-5.</u> Temporary construction within corridors serving bed or stretcher movement in Group I-<u>5 occupancies shall not reduce the corridor width to less than 60 inches.</u>

### PART II – INTERNATIONAL FIRE CODE

### Add new definition as follows:

**IBC [F] 425.5 Automatic sprinkler system.** Quick-response or residential sprinklers shall be provided in accordance with Section 903.3.2

**IBC [F] 425.6 Fire alarm system.** A fire alarm system shall be provided in accordance with Section 907.2.6.

**IBC [F] 425.7 Automatic fire detection.** Group I-5 occupancies shall be equipped with smoke detection as required in Section 425.2.

### Revise as follows:

**903.2.6 (IBC [F] 903.2.6) Group I.** An *automatic sprinkler system* shall be provided throughout buildings with a Group I *fire area*.

### **Exceptions:**

- 1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 facilities.
- 2. An *automatic sprinkler system* installed in accordance with Section 903.3.1.3 shall be allowed in Group I-1 facilities when in compliance with all of the following:
  - 2.1. A hydraulic design information sign is located on the system riser;
  - 2.2. Exception 1 of Section 903.4 is not applied; and
  - 2.3. Systems shall be maintained in accordance with the requirements of Section 903.3.1.2.
- 3. An *automatic sprinkler system* is not required where day care facilities are at the *level of exit discharge* and where every room where care is provided has at least one exterior exit door.
- 4. In buildings where Group I-4 day care is provided on levels other than the *level of exit discharge*, an *automatic sprinkler system* in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided and all floors between the level of care and the level of *exit discharge*, all floors below the *level of exit discharge*, other than areas classified as an open parking garage.
- 5. In Group I-5 occupancies, an *automatic sprinkler system* is not required in closets less than 6 square feet in area.

**903.3.2 (IBC [F] 903.3.2) Quick-response and residential sprinklers.** Where *automatic sprinkler systems* are required by this code, quick-response or residential automatic sprinklers shall be installed in the following areas in accordance with Section 903.3.1 and their listings:

- 1. Throughout all spaces within a smoke compartment containing care recipient *sleeping units* in Group I-2 in accordance with this code.
- 2. Throughout all spaces within a smoke compartment containing treatment rooms in ambulatory care facilities.

- 3. Dwelling units and sleeping units in Group I-1 and R occupancies.
- 4. Light-hazard occupancies as defined in NFPA 13.
- 5. Group I-5 occupancies.

**907.2.6 (IBC [F] 907.2.6) Group I.** A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group I occupancies. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be provided in accordance with Sections 907.2.6.1, 907.2.6.2, and 907.2.6.3.3 and 907.2.6.4.

### **Exceptions:**

- 1. Manual fire alarm boxes in sleeping units of Group I-1 and I-2 occupancies shall not be required at *exits* if located at all care providers' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that travel distances required in Section 907.4.2.1 are not exceeded.
- 2. Occupant notification systems are not required to be activated where private mode signaling installed in accordance with NFPA 72 is *approved* by the fire code official.

**907.2.6.2 (IBC [F] 907.2.6.2) Group I-2.** An automatic smoke detection system shall be installed in *corridors* in nursing homes, long-term care facilities, detoxification facilities and spaces permitted to be open to the *corridors* by Section 407.2. The system shall be activated in accordance with Section 907.5.

### **Exceptions:**

- 1. Corridor smoke detection is not required in smoke compartments that contain sleeping units where such units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each sleeping unit and shall provide an audible and visual alarm at the care provider station attending each unit.
- 2. Corridor smoke detection is not required in smoke compartments that contain sleeping units where sleeping unit doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.

# 907.2.6.4 (IBC [F] 907.2.6.4) Group I-5. Hospitals shall be equipped with smoke detection as required in Section 425.

**909.4.6 (IBC [F] 909.4.6) Duration of operation.** All portions of active or passive smoke control systems shall be capable of continued operation after detection of the fire event for a period of not less than either 20 minutes or 1.5 times the calculated egress time, whichever is less greater.

**Reason:** Hospitals historically are treated differently than other occupancies based on the need to defend in place during an emergency and that exit corridors are a work area in a hospital setting. This code change recognizes that hospitals are to be treated as a separate and distinct occupancy within the confines of the codes. The basic premise for the change is to remove health care hospitals and psychiatric hospitals from the I-2 umbrella and create a new Group I-5 category. Each of the code changes above have been brought forth by the Ad Hoc Committee for Health Care during the course of 2011, with a few exceptions. Although creating different Conditions of use within a Group I-2 occupancy is one approach, it doesn't recognize the need for separating hospitals into their own occupancy category.

Group I-3 occupancies are defined by different Conditions and are meant for restraint with different levels of securing occupants based on their level of movement capacities, from less secure to more secure. Institutional occupancies have not only different levels of supervision but also different levels of care. The current Group I-2 occupancy category has similar care levels for those that are incapable of self-preservation, but there are historical reasons why hospitals have more restrictive and prescriptive requirements than the other classifications within Group I-2, such as detoxification facilities and nursing homes. Switching hospitals to a separate occupancy is the next logical step in the progression of hospital development for the I-codes.

The scoping classification in Section 308.4 has been revised to reflect that those in nursing home, detoxification facilities, and foster care facilities receive custodial care as defined within the Section 202. Section 308.5 has been added for Group I-5 to reflect the need for medical care, also defined in Section 202.

Section 425 has been created specifically for Group I-5 occupancies. There are some code sections that overlap each of the I-2 and I-5 occupancy classifications and those are reflected above as well. The proposals brought forth by the Ad Hoc Committee for Health Care have been researched thoroughly in 2011 and all reasoning statements are well documented. Based on the work of the Ad Hoc Committee for Health Care, all of these code changes are based on the requirements of external agencies enforcing life

safety requirements from the NFPA standards. It is no secret that The Joint Commission has required the use of NFPA 101 for hospitals for decades. For this agency to change from using NFPA 101 to the IBC, drastic changes in the perception of the IBC and ease of its use for hospitals are needed.

**Cost Impact:** There is no cost impact for these changes as the industry has been using similar guidelines for many years as within the proposed changes through The Joint Commission regulations.

<b>G32-12</b> <b>PART I – IBC –</b> Public Hearing:	<b>G</b> Committee: Assembly:	AS ASF	AM AMF	D DF	
PART II – IFC	Committee:	AS	AM	D	308.4-G-BRESETTE
Public Hearing:	Assembly:	ASF	AMF	DF	

## G33 – 12 202, 308.1.1 (NEW), 408.1, 425 (NEW), Chapter 35

**Proponent:** Dave Frable, U.S General Services Administration, Public Buildings Service, representing U.S. General Services Administration, Public Buildings Service (dave.frable@gsa.gov)

### Revise as follows:

### SECTION 202 DEFINITIONS

**Lock-Up.** An area located in an occupancy, other than an I-3 occupancy, where occupants are detained by the use of security measures not under such occupants' control.

### Revise as follows:

### SECTION 308 INSTITITUIONAL GROUP I

**308.1 Institutional Group I.** Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which care or supervision is provided to persons who are or are not capable of self-preservation without physical assistance or in which persons are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-3 or I-4.

**308.1.1 Lockups**. Lockups located in occupancies, other than Group I-3 occupancies, shall comply with the requirements of the main occupancy of the building in which the lockup is located and with the requirements of Section 425.

### **Revise as follows:**

### SECTION 408 GROUP I-3

**408.1 General.** Occupancies in Group I-3 shall comply with the provisions of Sections 408.1 through 408.11 and other applicable provisions of this code (see Section 308.5). <u>Lockups located in occupancies</u>, other than I-3 occupancies, shall comply with the requirements of Section 425.

### SECTION 425 LOCKUPS.

**425.1 General.** Lockups in occupancies, other than Group I-3 occupancies, where the holding area has capacity for more than 50 detainees or where any individual is detained for more than 24 hours, shall be classified as Group I-3 occupancies and shall comply with the requirements of Section 408. Lockups in occupancies, other than Group I-3 occupancies, where the holding area has capacity for not more than 50 detainees, and where no individual is detained for more than 24 hours, shall comply with Section 425.2 or Section 425.3.

**425.2 Lockup Option 1.** The lockup shall comply with the requirements for the main occupancy of the building in which the lockup is located, and all of the following criteria:

- 1. Doors and other physical restraints to free egress by detainees can be readily released by staff within 2 minutes of the onset of a fire or similar emergency.
- 2. <u>Staff is in sufficient proximity to the lockup so as to be able to cause the 2-minute release</u> required by 425.2(1) whenever detainees occupy the lockup.

- 3. Staff is authorized to cause the release required by 425.2(1).
- 4. Staff is trained and practiced in effecting the release required by 425.2(1).
- 5. Where the release required by 425.2(1) is caused by means of remote release, detainees are not to be restrained from evacuating without the assistance of others.

**425.2.1 Fire department notification.** The fire department with responsibility for responding to a building that contains a lockup shall be notified of the presence of the lockup.

**425.3 Lockup Option 2.** Where the lockup does not comply with all the provisions of Section 425.2 the requirements of this Section shall be met.

**425.3.1 Main occupancy.** The requirements applicable to the main occupancy of the building in which the lockup is located shall be met.

**425.3.2 Means of egress.** Where security operations necessitate the locking of required means of egress, the following shall apply:

- <u>1.</u> <u>Detention-grade hardware meeting the requirements of ASTM F 1577 shall be provided on swinging doors within the required means of egress.</u>
- Sliding doors within the required means of egress shall be designed and engineered for detention and correctional use, and lock cylinders shall meet the cylinder test requirements of ASTM F 1577.

**425.3.3 Smoke detection.** The lockup shall be provided with a smoke detection system in accordance with Section 907.4.3.

**425.3.4 Fire alarm system.** Where the requirements applicable to the main occupancy of the building do not mandate a fire alarm system, the lockup shall be provided with a fire alarm system meeting all of the following criteria:

- 1. The fire alarm system shall be installed in accordance with Section 907.6.
- 2. Initiation of the fire alarm system shall be accomplished by all of the following:
  - 2.1. Manual fire alarm boxes in accordance with Section 907.4.2
  - 2.2. Smoke detection system in accordance with Section 425.3.3
  - 2.3. Automatic sprinkler system required by the provisions applicable to the main occupancy of the building.
- 3. Staff and occupant notification shall be provided automatically in accordance with Section 907.5.
- 4. Emergency force notification shall be provided in accordance with Section 907.6.5.

**425.3.5 Fire department notification.** The fire department with responsibility for responding to a building that contains a lockup shall be notified of the presence of the lockup.

### Add new definition to Chapter 35 as follows:

### ASTM – F 1577-05 Standard Test Methods for Detention Locks for Swinging Doors

**Reason:** The intent of this code change proposal is to address the subject matter of 'lockups". A lockup is basically a holding area in which persons are detained with some degree of security imposed on them that are commonly located in different types of occupancies. For example, lockups are typically located in immigration and naturalization facilities at border crossings, customs facilities at international airports, prisoner holding facilities at courthouses, local police department holding areas, security offices at sports stadia, security offices at shopping mall complexes, etc. Currently, the requirements within the IBC require "lockups" to meet the rigorous defend in place requirements applicable for Group I-3 occupancies. This code change proposal provides requirements specifically for lockups located in other than Group I-3 occupancies and provide a reasonable set of safe guards applicable to the main occupancy of the building in which the lockup is located. The subject provisions for lockups are meant to apply to holding areas of limited capacity in which no individual is detained for 24 or more hours.

New Section 425.1 establishes that if the holding area has the capacity for more than 50 detainees, it is classified as Group I-3 occupancy. Similarly, new Section 425.2 requires that, if an individual is detained for 24 or more hours, the holding area must be classified as Group I-3 occupancy.

Lockups subject to the provisions in Sections 425.3 are offered two options of compliance. Option #1 in Section 425.2 requires a system of safeguards, so that doors and physical restraints to free egress by detainees can be readily released by trained staff with the authority to cause such release, within 2 minutes of the onset of a fire or similar emergency. Option #1 will apply to holding areas that either (1) are staffed at all times when detainees are present or (2) have staff in close proximity and the detection and notification technology needed to summon such trained staff immediately upon the onset of an emergency. Option #2 provides alternate provisions for when all the criteria of the 2-minute release option in compliance Option #1 cannot be satisfied. This alternate set of provisions relies heavily on the presence of complete smoke detection within the lockup and its use to summon trained staff and emergency forces via the fire alarm system, which is required even if otherwise exempted for the main occupancy of the building. In addition, if the Code provisions applicable to the main occupancy of the building require sprinkler protection, the water flow in the sprinkler system must initiate the required alarm system. This option also imposes requirements for detention-grade doors hardware to address any reliability concerns\_by referencing ASTM F 1577-05, Standard Test Methods for Detention Locks for Swinging Doors. The subject standard's test methods will help ensure that detention locks perform at acceptable levels to control passage to unauthorized or secure areas, to confine detainees, and to delay escape attempts.

Please note that the subject code change proposal is based on the requirements for lockups in the National Fire Protection Association, Life Safety Code (2012 edition).

Cost Impact: This code change will not increase the cost of construction.

**Analysis:** A review of the standard proposed for inclusion in the code, ASTM F 1577-05 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, 2012.

G33-12						
Public Hearing: Com	mittee: A	AS	AM	D		
Asse	mbly: A	ASF	AMF	DF		
					202-LOCK UP (NEW)-G	-FRABLE.doc
### G35 – 12 202, 308.3, 308.4 (IFC [B] 202)

**Proponent:** Jerry Rosendahl, President, National Association of State Fire Marshals (jerry.rosendahl@state.mn.us)

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

**308.3 Institutional Group I-1.** This occupancy shall include buildings, structures or portions thereof for more than 16 persons who reside on a 24 hour basis in a supervised environment and receive *custodial care*. The persons receiving care are capable of self preservation. This group shall include, but not be limited to, the following:

Alcohol and drug centers Assisted living facilities <u>with residents capable of self preservation</u> Congregate care facilities Convalescent facilities *Group homes* Halfway houses Residential board and *custodial care* facilities Social rehabilitation facilities

**308.4 Institutional Group I-2.** This occupancy shall include buildings and structures used for *medical care* on a 24-hour basis for more than five persons who are *incapable of self preservation*. This group shall include, but not be limited to, the following:

Foster care facilities Detoxification facilities Hospitals Nursing homes Psychiatric hospitals Assisted living facilities with residents incapable of self preservation

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

ASSISTED LIVING FACILITIES. Custodial care congregate residential settings that provide or coordinate personal and health care services, 24-hour supervision, and assistance (scheduled and unscheduled) for the *health care maintenance* of adults who are aged, infirm or disabled and who are cared for in a primarily residential setting.

**HEALTH CARE MAINTENANCE.** The protection, general supervision and oversight of the physical and mental well-being of an aged, infirm or disabled individual. Residents may or may not need assistance to evacuate.

**CUSTODIAL CARE.** Assistance with day-to-day living tasks; such as assistance with cooking, taking medication, bathing, using toilet facilities and other tasks of daily living. Custodial care includes occupants who evacuate at a slower rate and/or who have mental and psychiatric complications- and may be incapable of self preservation.

**Reason:** The current code language limits I-2 to only medical care facilities, which in itself would be in conflict with foster child care facilities. There are many facilities housing residents incapable of self-preservation that are not medical facilities by state definitions. This represents a huge gap in the code. With I-2 as a classification for only those facilities providing medical care and I-1 for only those capable of self-preservation, the IBC has no classification for a facility in which residents are under the care, supervision, protection or under the responsible care of the facility operator, and who are not capable of self-preservation. We do not object to what the CTC committee is attempting to do, but the CTC should recognize that the code certainly should be clear about the protection required for all individuals who are under the care of others and develop provisions that will protect all individuals. In

order to make the proper distinction and close the code's gap, the definition of "assisted living facilities" is offered. The phrase "health care maintenance" appears only in the definition of "assisted living facilities".

Cost Impact: The code change proposal will not increase the cost of construction.

### G35-12 Public Hearing: Committee: AS AM Assembly: ASF AMF

202-ASSISTED LIVING FACILITIES (NEW)-G-ROSENDAHL

D

DF

### G58 – 12 404.9.1 (NEW), 404.9.2 (NEW)

#### THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Proponent: Charles S. Bajnai, Chesterfield County, VA., ICC Building Code Action Committee (BCAC)

#### Add new text as follows:

**404.9 Travel distance.** In other than the lowest level of the *atrium*, where the required *means of egress* is through the *atrium* space, the portion of *exit access* travel distance within the *atrium* space shall be not greater than 200 feet (60 960 mm). The travel distance requirements for areas of buildings open to the *atrium* and where access to the *exits* is not through the *atrium*, shall comply with the requirements of Section 1016.

**404.9.1 Exit access across floor of atrium.** Where the lowest level of the *atrium* is at the *level of exit discharge*, exit access travel distance shall be in accordance with Section 1016.2.

**404.9.2 Interior exit stairways.** A maximum of 50 percent of *interior exit stairways* are permitted to egress through the lowest level of an *atrium* where that level is the *level of exit discharge* in accordance with Section 1027.

**Reason:** The proposed language will clarify an otherwise vague permitted use of an atrium floor to be used as exit access to an exit from the atrium. This design is frequently encountered in healthcare and high-rise residential occupancies.

This 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 3 open meetings and over 15 workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

**Cost impact:** The code change proposal will not increase the cost of construction.

G58-12				
Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				404.9.1-G-BAJNAI-BCAC

### G65 – 12 407.2.5 (NEW)

Proponent: Carl Baldassarra, P.E., FSFPE Chair, ICC Code Technology Committee (CTC)

#### Add new text as follows:

**407.2.5 Cooking facilities.** In Group I-2 nursing homes, rooms or spaces that contain domestic cooking facilities shall be permitted to be open to the corridor where the number of sleeping units within the smoke compartment is limited to 30 residents and all of the following requirements are met:

- 1. Only one area with domestic cooking facilities is permitted within a smoke compartment.
- 2. The types of cooking appliances are are limited to ovens, cooktops, ranges, warmers and microwaves.
- 3. <u>The corridor is a clearly identified space delineated by construction or floor pattern, material or color.</u>
- 4. The space containing domestic cooking facilities shall be arranged so as not to obstruct access to the required exit.
- 5. <u>A domestic cooking hood installed and constructed in accordance with Section 505 of the</u> International Mechanical Code is provided over cooktops and ranges.
- 6. The domestic cooking hood provided over the cooktop or range shall be equipped with an automatic fire-extinguishing system of a type recognized for protection of domestic cooking equipment. Pre-engineered automatic extinguishing systems shall be tested in accordance with UL 300A and listed and labeled for the intended application. The system shall be installed in accordance with this code, its listing and the manufacturer's instructions.
- 7. <u>A manual actuation device for the hood suppression system shall be installed in accordance with</u> Section 904.11.1 and 904.11.2 of the International Fire Code.
- 8. <u>A shutdown for the fuel and electrical power supply to the cooking equipment shall be provided</u> and shall be accessible only to staff.
- 9. A portable fire extinguisher shall be installed within 30 feet (9144 mm) of domestic cooking appliances complying with Section 906.

**Reason:** The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

As nursing homes move away from institutional models, it is critical to have a functioning kitchen that can serve as the hearth of the home. Instead of a large centralized, institutional kitchen where all meals are prepared and delivered to a central dining room or the resident's room, the new "household model" nursing home uses de-centralized kitchens and small dining areas to create the feeling and focus of home. For persons with dementia, it is particularly important to have spaces that look familiar, like the kitchen in their former home, to increase their understanding and ability to function at their highest level.

Allowing kitchens, that serve a small, defined group of residents, to be open to common spaces, and in some instances corridors, are critically important to enhancing the feeling and memories of home for older adults. This allows residents to see and smell the food being prepared, which can enhance their appetites and evoke positive memories. Some residents, based on their abilities and cognition level may even be able to participate in food preparation activities such as stirring, measuring ingredients, peeling vegetables, or folding towels. This becomes a social activity, where they can easily converse with the staff member cooking, as well as a way for the resident to maintain their functional abilities and to feel that they are still an important contributing member of society.

We know that unattended cooking equipment is the leading cause of fires. However, allowing the kitchen to be open also allows the nursing home staff to more carefully supervise the space so that if an incident were to occur, it would be spotted and dealt with faster than if the kitchen was completely behind closed doors. Health care facilities have the benefit of having awake-staff 24 hours a day. These staff members know the building layout and the residents well, and are trained to handle emergencies. The locked fuel shut-off switch will prevent cooking activities occurring without staff knowledge.

Moreover, studies have shown that a single low-flow residential sprinkler head is effective "to control both [a] cooking oil fire and [an] appliance fire, despite shielding by the cabinets, while extinguishing the fire spread to the cabinets and walls." [ref: NIST special publication 1066: Residential kitchen fire suppression research needs, Madrzykowski, Hamins & Mehta, Feb. 2007] As all nursing homes are already required to have quick-response sprinklers throughout, we believe that more than adequate safety is being provided when preparing food up to 16 residents, and by adding the automatic chemical suppression in the hood, we are also providing more than adequate safety for up to 30 residents. The volume of meals prepared in both of these cases are much more similar to a single-family home rather than a commercial restaurant setting.

The fire safety record for nursing homes is one of the lowest of any occupancy in the United States based on NFPA fire data. The number of fire deaths from multiple death fires has averaged 1.7 deaths/year for the last 20 years. The number of single fire deaths in nursing averages 3-5 deaths/ year. The population of nursing homes is 1.7 million. Compared to the number of residents 65 or over living in residential occupancies (32 million) and the number of fire deaths/year of this population, a resident over 65 in a nursing home is 12 times less likely to die in a fire than a resident over 65 living in a private residential occupancy.

All new nursing homes have been required to be sprinklered since 2003, and currently 95% of all existing nursing homes are sprinklered. All existing nursing homes are required by federal regulations to be fully sprinklered by August 13, 2013. There has never been a multiple death fire in a fully sprinklered nursing home based on 15 years of NFPA fire data. A review of nursing home fire data from 1970 (41 years) not a single multiple death nursing home fire resulted from a fire originating in a kitchen. The majority of single death fires are the result of a resident smoking while on oxygen or the ignition of their clothing or bedding from smoking material. We could find no fire data of any resident of a nursing home, single or multiple death fire, dying from a fire that originated in a kitchen.

In nursing home occupancies, the strategy is to defend in place, taking advantage of the smoke compartments to move residents away from smoke and fire. The smaller size of the household units that would contain these open kitchens, rather than the larger institutional style nursing homes many of us know, means that evacuations to an adjacent compartment or to the exterior is faster and the smaller size of any one of these units limits the number of people at risk.

An additional safety feature, in this proposal, is the inclusion of a deactivation switch that is locked and only accessible to staff. This will prevent unauthorized use of the cooking appliance without staff supervision. Staff members would need to be trained not only in basic food handling precautions but also in basic fire safety and extinguisher use. A fire extinguisher would be required in each kitchen area in addition to the suppression required in the hood and the sprinklers in the facility. These are all additional levels of safety that are being added to this application and will help to protect the residents.

The choice of thirty or fewer residents as the limiting number of residents that could be housed within a single unit with an open kitchen was based on a requirement from the Veterans Administration to serve the needs in their facilities, as well as current trends in the design of these types of facilities. These small nursing homes or nursing home "household" units generally range in size from 10 to 30 residents. The committee that drafted this proposal included providers, industry representatives, code and design professionals who are familiar with this design model and its operation. This group's conclusion was that 30 residents allowed this open kitchen application for the overwhelming majority of facilities in the industry because staffing for thirty is widely considered an economical staffing ratio for the majority of organizations. Yet the designs for this number are still relatively small in size. These designs range from around 6,000 square feet for the smallest 10 person units to around 17,000 square feet even for units housing as many as 30. In general, at these unit sizes, the distances to exits, either to the exterior or to other compartments is much shorter than commonly seen in traditional nursing homes. This committee felt that in combining the added safety features proposed along with the improved evacuation distances and reduced number of people at risk, the limitation of 30 people maintained good safety, yet met the needs of a majority of the industry.

If this proposal is approved, there will be a reference in Table 906.1 for fire extinguishers.

Example of Kitchen open to Corridor.



Example of shutdown

Cost Impact: This code change proposal will not increase the cost of construction. Reduction

G65-12				
Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				407.2.5#1-G-BALDASSARRA-CTC

### **G67 – 12** 407.3

Proponent: Sarah A. Rice, C.B.O., The Preview Group (srice@preview-group.com)

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

**407.3 Corridor wall construction.** *Corridor* walls shall be constructed as smoke partitions in accordance with Section 710.

#### Exception. Corridor walls in suites.

**Reason:** Over the past several cycles, the IBC has evolved to regulate the design of Group I-2 occupancies (hospitals and nursing care on a 24 hour basis) in a manner consistent with the regulations required by the Centers for Medicare & Medicaid Services (CMS) and The Joint Commission for accreditation (NFPA 101-2000; Life Safety Code). One of the biggest healthcare design features added in recent years is the concept of "care suites." By definition in IBC Section 202, a "care suite" is "A group of treatment rooms, care recipient sleeping rooms and their associated support rooms or spaces and circulation space within Group I-2 occupancies where staff are in attendance for supervision of all care recipients within the suite, and the suite is in compliance with the requirements of Section 407.4.3." Typical care suites are those where the patients need close supervision and monitoring, and include ICU areas. Because of the heighten awareness in the care suite with 24-hour supervision, some of the typical fire protection features are allowed to be omitted. While there is a lot of interpretation in regard to how corridors walls in a care suites are to be constructed, this code change seeks to make it clear that when there are corridors in a care suite they are not required to be smoke partitions, and that the doors in those walls are not required to meet limit the transfer of smoke or be positive latching.

**Cost Impact:** The proposed changes will not increase the cost of construction.

G67-12				
Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
,				407.3-G-RICE

### **G69 – 12** 407.4.1

**Proponent:** Paul Armstrong, City of El Monte, representing Orange Empire Code Committee (paul@jaspacific.com)

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

**407.4.1 Direct access to a corridor.** Habitable rooms in Group I-2 occupancies shall have an *exit access* door leading directly to a *corridor*.

#### **Exceptions:**

- 1. Rooms or care suites with exit doors opening directly to the outside at ground level.
- 2. Rooms arranged as care suites complying with Section 407.4.3

Reason: There are many single story hospitals where an exit door serves the suite and a corridor is not necessary.

Cost Impact: There is no increase in cost of construction due to this revision.

G69-12				
Public Hearing: Committee: Assembly:	AS ASF	AM AMF	D DF	
/ 10001112.j1			2.	407.4.1-G-ARMSTRONG

### **G70 – 12** 202, 407.4.2, 407.4.3.3, 407.4.3.4, 407.4.3.5, 407.4.3.5.1, 407.4.3.5.3

#### THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

**Revise as follows:** 

**CARE SUITE.** In Group I-2 occupancies, a group of treatment rooms, care recipient sleeping rooms and their associated the support rooms or spaces and circulation space within the suite Group I-2 occupancies where staff are in attendance for supervision of all care recipients within the suite, and the suite is in compliance with the requirements of Section 407.4.3.

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

**407.4.2 Travel distance.** The travel distance between any point in a Group I-2 occupancy sleeping room, <u>not located in a *care suite*</u>, and an *exit access* door in that room shall be not greater than 50 feet (15 240 mm).

**407.4.3 Group I-2 care suites.** *Care suites* in Group I-2 shall comply with Section 407.4.3.1 through 407.4.3.4 and either Section 407.4.3.5 or 407.4.3.6.

**407.4.3.1 Exit access through care suites.** *Exit access* from all other portions of a building not classified as a *care suite* shall not pass through a *care suite*. In a *care suite* required to have more than one *exit,* one *exit access* is permitted to pass through an adjacent *care suite* provided all of the other requirements of Sections 407.4 and 1014.2 are satisfied.

**407.4.3.2 Separation.** *Care* s*uites* shall be separated from other portions of the building by a smoke partition complying with Section 710.

**407.4.3.3 One intervening room.** For rooms other than sleeping rooms located within a *care suite*, *exit access* travel from the *care suite* shall be permitted through one intervening room where the travel distance to the *exit access* door from the *care suite* is not greater than 100 feet (30 480 mm).

**407.4.3.3 Access to Corridor.** Movement from habitable rooms shall not require passage through no more than 3 doors and 100 feet (30 480 mm) travel distance within the suite.

**Exception:** The travel distance shall be permitted to be increased to 125 feet (38 100 mm) where an automatic smoke detection system is provided throughout the *care suite* and installed in accordance with NFPA 72.

**407.4.3.4 Two intervening rooms.** For rooms other than sleeping rooms located within a *care suite*, *exit* access travel within the *care suite* shall be permitted through two intervening rooms where the travel distance to the *exit access* door from the *care suite* is not greater than 50 feet (15 240 mm).

407.4.3.5 <u>407.4.3.4</u> Care suites containing sleeping room areas. Sleeping rooms shall be permitted to be grouped into *care suites* with one intervening room if one of the following conditions is met:

- 1. The intervening room within the *care suite* is not used as an *exit access* for more than eight care recipient beds.
- 2. The arrangement of the *care suite* allows for direct and constant visual supervision <u>into the</u> <u>sleeping rooms</u> by care providers.

3. An automatic smoke detection system is provided in the sleeping rooms and installed in accordance with NFPA 72.

**407.4.3.5.1** <u>407.4.3.4.1</u> Area. Care suites containing sleeping rooms shall be not greater than  $\frac{5,000}{7,500}$  square feet (465 696 m<sup>2</sup>) in area.

**Exception:** Care suites containing sleeping rooms shall be permitted to be not greater than 10,000 sq feet (929 m<sup>2</sup>) in area where automatic smoke detection system is provided throughout the care suite and installed in accordance with NFPA 72.

**407.4.3.5.2** <u>407.4.3.4.2</u> Exit access. Any sleeping room, or any *care suite* that contains sleeping rooms, of more than 1,000 square feet (93 m2) shall have no fewer than two *exit access* doors from the *care suite* located in accordance with Section 1015.2.

# **407.4.3.5.3 Travel distance.** The travel distance between any point in a *care suite* containing sleeping rooms and an *exit access* door from that *care suite* shall be not greater than 100 feet (30 480 mm).

**Reason:** Reason: This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx.

In relation to the code change proposal dealing with size and configuration of care suites, the definition is being proposed with changes to address the scope of which the suites are used. Suites are recognized to be an effective tool to provide some flexibility in reaching an exit access, due to functional considerations. Use of suites is a particularly useful tool at Intensive Care Units and Emergency Departments in patient treatment areas. The ability to have full visual wall systems that have a breakaway function is extremely beneficial during any type of emergency situation, including defend-in-place, evacuation as well as day-to-day care. These systems allow for observation while providing a level of privacy for the patient. These systems are also flexible enough to handle multiple levels of acuity in the same space.

It is not the intent to broaden the definition so widely as to effectively eliminate the use of corridors as exit access. This change attempts to clarify that associated support spaces of care suites, such as pharmacies, laboratories, linen rooms and storage rooms which are not located within the care suite are not required to be classified as care suites.

The proposal relaxes several requirements due to providing additional fire protection features and clarifies code intent on requirements. The 5,000 square ft limitation for care suites was in legacy building codes before sprinkler protection was required in Group I-2 occupancies. Sprinkler protection provides additional life safety to building occupants which justifies the care suite containing sleeping rooms area increase to 7,500 square ft. Providing an automatic smoke detection system throughout a care suite containing sleeping rooms or constant staff supervision into the sleeping rooms further justifies increasing the area to 10,000 square ft.

The proposal also removes the intervening room from the travel distance requirements as an intervening room is difficult to define and conflicts with industry practice for design of certain units. For example does a pair of "cross corridor" doors within a suite constitute an intervening room? A provision was added to limit the number of doors required for a patient sleeping bed to reach the exit access corridor which addresses concerns regarding patient evacuation of the suite. Current requirements make it difficult to plan the sleeping portion of the suite in under 5,000 square feet, primarily because of the required size of the patient sleeping room. In the past, a sixteen bed area could get under the space requirement, with support spaces such as clean and soiled utilities falling outside that portion of the suite. However, the Intensive Care Unit programming data supports the need for the basic patient room / staff space elements of the program can be accommodated in under 7,500 square feet, but not less than 5,000 square feet. In order to properly staff a unit, the need for unobstructed view from a nurses station to a patient room is needed. This cannot be done with the barrier to form a suite down the middle of the unit, and therefore the staff area. The proposed change enables removal of that barrier while optimizing operational efficiency of the unit, including the fire safety watch of the unit by staff.

To achieve a 7,500 square foot suite, the program becomes very limited to the spaces that are involved in the direct care of the patient, as demonstrated on the Intensive care Suite program developed for this proposal (see the "IntensiveCareUnit-7500" tab in the noted programming file). Key spaces such as the break room and utility spaces are outside of the suite, which is workable from an operational standpoint, but not ideal. Key spaces such as staff support and utility spaces are outside of the suite. Increasing to 10,000 square feet allows inclusion of staff more staff and support spaces within the suite. Operationally, this is a key factor because the staff will not need to leave the suite on their break time, when retrieving supplies, or to access the staff toilet because it improves the response time of the staff during a medical emergency, or a fire / safety situation.

The proposal clarifies the 50 ft travel distance limitation from a patient sleeping room to an exit access door does not apply in care suites. The provision of crossing through three doors is also being introduced to help clarify what is now called out as 'intervening spaces.' Use of three doors is much clearer to a reviewer and designer, rather than defining what is an intervening space on a project-by-project basis.

The proposal also permits smoke detection to be provided in sleeping rooms of care suites where direct supervision of patients by staff is not possible. Smoke detection in the patient room provides equivalent early detection of a fire. The proposal attempts to maintain the level of life safety in care suites while providing more options to health care design professionals to facilitate excellent patient experience and treatment.

The travel distance provisions in care suites with sleeping rooms was increased to 125 ft to reach an exit access corridor based on the additional level of protection provided by direct and constant supervision into sleeping rooms by care providers or complete smoke detection throughout the suite as well as limiting the number of doors permitted for a patient sleeping bed to reach the exit access corridor.

This committee also has a correlative change to IFC with proposed language in IBC 407.8 and 907.2.6.2 coordinates with the proposed language automatic smoke detection system requirements in IBC 407.4.3.

Refer to attached "ICC\_AHCHC Programming\_10-10-2011.xlsx" for programming data as it relates to Intensive Care Units. This program is based on the noted version of the AIA or FGI Guidelines for Planning of Healthcare Facilities, for the support of the 7,500 square foot increases as noted above. A copy of the programming document can be found at www.iccsafe.org.

**Cost Impact:** The proposed changes will not increase the cost of construction.

#### G70-12/13

Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
,				407.4.2-G-Williams-Adhoc

### G72 – 12 407.4.3, 407.4.3.5 (NEW)

**Proponent:** John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA)

#### THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.

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

**407.4.3 Group I-2 care suites.** *Care suites* in Group I-2 shall comply with Section 407.4.3.1 through 407.4.3.4 407.4.3.5 and either Section 407.4.3.5 407.4.3.6 or 407.4.3.6 407.4.3.7.

**407.4.3.5 Doors within care suites.** Doors within care suites serving habitable rooms shall be permitted to comply with one of the following:

- 1. Manually operated horizontal sliding doors permitted in accordance with Exception 9 to Section 1008.1.2.
- 2. Power-operated doors permitted in accordance with Exception 7 to Section 1008.1.2.
- 3. Means of egress doors complying with Section 1008.

#### (Renumber subsequent sections)

**Reason:** This code proposal is intended to help improve the code by identifying what is permitted for doors installed within Group I-2 care suites.

Within care suites, patient rooms and treatment rooms are generally not required by the IBC to have doors. However, for clinical needs (infection control, privacy, confidentiality, etc.), doors are commonly required within care suites to patient rooms or treatment rooms.

BHMA members are experiencing varying interpretations and code enforcement actions for the doors installed within Group I-2 care suites. The IBC may be considered less than explicitly clear as to what is specifically required, or allowed, for doors installed within Group I-2 care suites.

We realize, from a technical perspective, this proposed language does not add new requirements to the code. We also realize a user of the IBC could determine what is required and what is not required – and, by default, what is allowed – for doors installed within I-2 care suites. Examples: a door installed in a fire-resistance rated wall would need to be fire-resistance rated (however, doors <u>within</u> I-2 care suites are rarely required to be fire-resistance rated). Similar for smoke partitions. Most doors and doorways in I-2 care suites need to meet egress and accessibility requirements, which is usually a non-issue as these doors and doorways are configured for patient movement by wheelchair and hospital bed.

Unfortunately, BHMA members are experiencing differences in interpretation and application of the code (example: not approving manually operated horizontal sliding doors serving patient sleeping rooms in a care suite) making it difficult to confidently assist building owners, architects, contractors, and other stakeholders with their projects.

With this proposal, we're attempting to provide appropriate guidance as to what is permitted for doors installed within Group I-2 care suites.

Cost Impact: The proposed changes will not increase the cost of construction.

G72-12					
Public Hearing:	Committee:	AS	AM	D	
	Assembly:	ASF	AMF	DF	
	-				407.4.3.7 (NEW)-G-WOESTMAN

# **G74 – 12** 407.4.3.2

Proponent: Lennon Peake, P.E., Koffel Associates, Inc., representing self (lpeake@koffel.com)

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

**407.4.3.2 Separation.** *Care* suites shall be separated from other portions of the building, including other <u>care suites</u>, by a smoke partition complying with Section 710.

**Reason:** The existing language only references that care suites must be separated from other portions of the building and could be interpreted that care suites are not required to be separated from each other. The intent of the proposal is to clarify that care suites must be separated from other care suites by a smoke partition especially since Paragraph 407.4.3.1 permits egress through an adjoining suite.

Cost Impact: There is no cost impact as a result of this proposal as it is intended to clarify existing requirements.

G74-12				
Public Hearing: Committee:	AS	AM	D	
Assembly:	ASF	AMF	DF	
				407.4.3.2-G-PEAKE

# G75 – 12 407.4.3.6.1

Proponent: Lennon Peake, P.E., Koffel Associates, Inc., representing self (lpeake@koffel.com)

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

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**407.4.3.6.1** Area. Care suites of rooms, other than sleeping rooms, shall have an area not greater than  $\frac{10,000}{12,000}$  square feet ( $\frac{929}{1.161}$  m<sup>2</sup>).

**Exception:** Care suites not containing sleeping rooms shall be permitted to be not greater than 15,000 sq feet (1 394 m<sup>2</sup>) in area where an automatic smoke detection system is provided throughout the care suite in accordance with Section 907.

**Reason:** The 10,000 square ft limitation for care suites not containing sleeping rooms was in Codes before sprinkler protection was required in Group I-2 occupancies. Sprinkler protection provides additional life safety to building occupants which justifies the area increase to 12,500 square ft. Providing an automatic smoke detection system throughout a care suite provides an additional level of life safety which justifies increasing the area to 15,000 sq ft. Sprinkler protection and smoke detection are very effective measures of providing life safety to building occupants address the proposed increase in the area of a care suite not containing sleeping rooms.

Cost Impact: There is not cost impact as a result of this proposal as it allows more options in the design of a suite.

G75-12					
Public Hearing: Co	ommittee:	AS	AM	D	
As	ssembly:	ASF	AMF	DF	
	-				407.4.3.6.1-G-PEAKE

### G174 – 12 PART 1 – IBC GENERAL 3007.7, 3007.7.1, 3007.7.5 (NEW), 3007.7.6 (NEW), Part II – IBC GENERAL 3008.7, 3008.7.1, 3008.7.5 (NEW) PART III – IBC FIRE SAFETY 713.14.1.2 (NEW)

Proponent: AI Godwin, CBO, CPM, Aon Fire Protection Engineering, (al.godwin@aon.com)

#### THIS IS A 3 PART CODE CHANGE. PARTS I AND II WILL BE HEARD BY THE IBC GENERAL COMMITTEE AND PART III WILL BE HEARD BY THE IBC FIRE SAFETY COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC FIRE SAFETY CODE DEVELOPMENT COMMITTEE.

**PART I - IBC GENERAL** 

Revise as follows:

**3007.7 Fire service access elevator lobby.** The fire service access elevator shall open into a fire service access elevator lobby in accordance with Sections 3007.7.1 through <del>3007.7.5</del> <u>3007.7.7</u>.

**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 in accordance with Section 708.14.1.

The fire service access elevator lobby shall be permitted to be one of the following:

- 1. A private lobby from the fire service access elevator in which the elevator is dedicated to this use only.
- 2. A private lobby on the side or rear of a public or freight elevator which has two entrances onto a floor. The second entrance shall be permitted to open into an elevator lobby in accordance witgh Section 713.14.1.
- 3. The public or freight elevator lobby when constructed in accordance with this Section. The lobby exceptions of Section 713.14.1 shall not be applicable except as specified in Section 3007.7.2.

**3007.7.1 Access.** The fire service access elevator lobby shall have direct access to an enclosure for an *interior exit stairway*.

**Exception:** Direct access shall be permitted through an *exit passageway*, used only as an *exit* in accordance with Section 1023 that directly connects the lobby to the *interior stairway*, is not also used as a corridor, and has no other entry doors except those that are used as a *means of egress*.

<u>3007.7.5 Connections with corridors and other rooms.</u> Corridors shall be permitted to pass through the fire service access elevator lobby when the connecting walls and doors are constructed in accordance with this section.

**Exception:** In Group I-2 occupancies and ambulatory healthcare facilities, connecting doors for a corridor passing through the lobby need not have latching hardware when in compliance with Section 709.5.

Other rooms or spaces, other than those associated with fire service uses, shall not have doors directly connected to the fire service access elevator lobby.

<u>3007.7.6 Storage and furniture.</u> Fire service access elevator lobbies shall be maintained free of storage and furniture.

(Renumber subsequent sections)

#### PART II – IBC GENERAL

**3008.7 Occupant evacuation elevator lobby.** The occupant evacuation elevators shall open into an elevator lobby in accordance with Sections 3008.7.1 through <del>3008.7.7</del> <u>3008.7.8</u>.

**3008.7.1 Access.** The occupant evacuation elevator lobby shall have direct access to an *interior exit stairway* or *ramp*.

**Exception:** Direct access shall be permitted to be through the use of an *exit passageway*, used only as an *exit* in accordance with Section 1023 that directly connects the lobby to the *interior stairway*, is not also used as a corridor, and has no other entry doors except those that are used as a *means of* egress

<u>3008.7.5 Connections with corridors and other rooms.</u> Corridors shall be permitted to pass through the occupant evacuation elevator lobby when the connecting walls and doors are constructed in accordance with this section.

**Exception:** In Group I-2 occupancies and ambulatory healthcare facilities, connecting doors for a corridor passing through the lobby need not have latching hardware when in compliance with Section 709.5.

Other rooms or spaces, other than those associated with fire service uses, shall not have doors directly connected to the occupant evacuation elevator lobby.

(Renumber subsequent sections)

#### PART III - IBC FIRE SAFETY

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

**713.14.1.2 Connections with corridors and other rooms.** When a lobby or smoke partitions of Exception 5 in Section 713,14,1, is constructed, corridors shall be permitted to pass through the elevator lobby when the connecting walls and doors are constructed in accordance with this section.

**Exception:** In Group I-2 occupancies and ambulatory health care facilities, connecting doors for a corridor passing through the lobby need not have latching hardware when in compliance with Section 709.5.

#### Other rooms or spaces shall be permitted to have doors directly connected to the lobby.

**Reason:** Part I: During the last code cycle, code change FS45-09/10 was submitted to restrict exiting through a passenger elevator lobby. It was withdrawn after public comments were submitted against it claiming that it was an exiting issue and not a fire safety issue.

This proposal is being submitted as a fire safety issue for clarification as to the fire safety construction of fire service access elevator lobbies and occupant evacuation elevator lobbies. While passenger elevator lobbies may end up as part of the discussion, the first point of clarification is for fire service access elevator lobbies.

When originally submitted, the exception to Section 3007.7 gave the impression that the fire service access elevator lobby was a private dedicated elevator lobby. When G49-09/10 passed, requiring "two" fire service access elevators, it virtually guaranteed that the public lobby would be used as the fire service access lobby. This was further confirmed when G164-09/10 was passed using the following drawing:



With multiple lobby changes happening (fire service access elevator lobbies, occupant evacuation lobbies, which are now tied to passenger lobbies) it is time the sections were correlated. And, how does section 709.5, allowing the removal of hardware fit into all of this?

There are commentary notes about public elevator lobbies that may or may not be applicable when used as the fire service access lobby. Thus, this submittal is to generate discussion as to what is or is not applicable.

Specific sections are explained as follows:

Section 3007.7, options 1 thru 3. These now appears to be the design options available.

Section 3007.7.1. Now that two elevators are required, it is likely that the main elevator lobby in the center of the building will be the option of choice as shown in G164-09/10. As such, it may not be feasible to install an extra stair in the center of the building, or bring over one of the original stairs and still meet code for dead end corridors. Therefore, direct connection from the lobby to the stair with the use of an exit passageway seems to be an appropriate option.

Section 3007.7.5. The commentary allows corridors to pass through a lobby and it allows other rooms to have direct access to and/or through the lobby. The commentary states:

"Egress through elevator lobbies from corridors on both sides is also allowed.

Two questions arise. One, can a space have its only exit access path through an elevator lobby? The answer is yes, if it meets all the other egress requirements. Second, can an exit enclosure open into and elevator lobby? The answer is yes. An elevator lobby is a normally occupied space in the same manner that a corridor is a normally occupied space."

If the above mentioned commentary notes are not deemed appropriate for passenger lobbies, then an amendment to Section 713.14.1 may be needed to correct the commentary.

However, as long as applicable, the following might also apply to the Fire Service Access lobby:

Allowing the corridor to pass through a fire service access lobby, when properly protected, would not seem to add any extra hazard than crossing across the front of a lobby as shown in G164 above. The exception for Group I-2's and ambulatory health care needs to be evaluated.

However, is does not seem appropriate to have extra rooms directly connected to the fire service access lobby, even if separated, that would exit through the lobby and perhaps into the directly connected interior stair.

Section 3007.7.6. This is from IFC Section 607.3.

Some examples are as follows:

1. Corridor passes through passenger elevator lobby. If provided with access to a stair and proper construction, could this be a Fire Service Access Elevator Lobby and/or an Occupant Evacuation Elevator Lobby?



2. Rooms connect to and exit through elevator lobby. If provided with access to a stair and correct construction, could this be a Fire Service Access Elevator Lobby and/or an Occupant Evacuation Elevator Lobby?



Even the commentary has an example of what appear to be restrooms off an elevator lobby as follows:



3. The following is an example of corridors passing through a lobby, along with rooms with direct connection to lobby, serving as passenger elevator lobby Fire Service Access lobby and/or Occupant Evacuation Elevator lobby. This is an actual design submitted for review.



When this discussion concludes, there should be a clear definition of what is required for lobby protection.

#### Part II

Part II is actually a place holder. Depending on how the discussions proceed on Part I, amendments may be needed on Part II. By listing this section in the code change, it will allow them to be made.

My personal opinion is that the elevator lobby should be a separated alcove off of the side with only a corridor going across the entry way as shown in the drawing under Part I above. However, the commentary allows corridors to pass through a lobby and it allows other rooms to have direct access to and/or through the lobby. The commentary states: "Egress through elevator lobbies from corridors on both sides is also allowed.

Two questions arise. One, can a space have its only exit access path through an elevator lobby? The answer is yes, if it meets all the other egress requirements. Second, can an exit enclosure open into and elevator lobby? The answer is yes. An

elevator lobby is a normally occupied space in the same manner that a corridor is a normally occupied space."

In order to specifically achieve the alcove as shown in the drawing above, it would seem that extra wording is required.

#### Part III

Part III is actually a place holder. Depending on how the discussions proceed on Part I, amendments may be needed on Part III. By listing this section in the code change, it will allow them to be made.

My personal opinion is that the elevator lobby should be a separated alcove off of the side with only a corridor going across the entry way as shown in the drawing under Part I below. However, the commentary allows corridors to pass through a lobby and it allows other rooms to have direct access to and/or through the lobby. The commentary states:

"Egress through elevator lobbies from corridors on both sides is also allowed.

Two questions arise. One, can a space have its only exit access path through an elevator lobby? The answer is yes, if it meets all the other egress requirements. Second, can an exit enclosure open into and elevator lobby? The answer is yes. An elevator lobby is a normally occupied space in the same manner that a corridor is a normally occupied space." In order to specifically achieve the alcove as shown in the drawing above, it would seem that extra wording is required.

**Cost Impact:** This code change proposal will increase the cost of construction if the intent was to allow such penetrations of all lobbies and this restricts such penetrations.

G174-12 PART I – IBC G	ENERAL				
Public Hearing:	Committee: Assembly:	AS ASF	AM AMF	D DF	
PART II – IBC (	GENERAL				
Public Hearing:	Committee: Assembly:	AS ASF	AM AMF	D DF	
PART III – IBC	FIRE SAFETY				
Public Hearing:	Committee: Assembly:	AS ASF	AM AMF	D DF	
					3007.7-G-GODWIN.doc

# G219 – 12 3404.7, 3404.7.1, 3404.7.2, 3404.7.3 (IEBC [B] 403.7, 403.7.1, 403.7.2, 403.7.3)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

#### Add new text as follows:

<u>3404.7 (IEBC [B] 403.7) Refuge areas.</u> Where alterations affect the configuration of an area utilized as a refuge areas, the capacity of the refuge area shall not be reduced below that required in Section 3404.7.1 through 3404.7.3.

**3404.7.1 (IEBC [B] 403.7.1) Smoke compartments.** In Group I-2 and I-3 occupancies, the required capacity of the refuge areas for smoke compartments in accordance with Section 407.5.1 and 408.6.2 shall be maintained.

3404.7.2 (IEBC [B] 403.7.2) Ambulatory care. In ambulatory care facilities required to be separated by Section 422.2, the required capacity of the refuge areas for smoke compartments in accordance with Section 422.4 shall be maintained.

# 3404.7.3 (IEBC [B] 403.7.3) Horizontal exits. The required capacity of the refuge area for horizontal exits in accordance with Section 1025.4 shall be maintained.

**Reason:** When a space is being altered the designer needs to check that an alteration does not conflict with the area being used as a refuge area from an adjacent compartment. There is a correlative change being proposed for IEBC Chapter 8.

This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx .

#### Cost Impact: None

### G219-12 Public Hearing: Committee: AS AM D Assembly: ASF AMF DF