2012/2013 ICC CODE DEVELOPMENT CYCLE

UPDATES TO THE 2012 PROPOSED CHANGES TO THE INTERNATIONAL CODES

Initial Posting: 3/22/2012

Updated 3/30/12, 4/3/2012, 4/5/2012, 4/9/2012, and 4/16/2012

The following is a compilation of errata discovered to the Code Change Monograph after the posting of Monograph on March 12th, 2012. The first errata was posted 3/22/2012. All errata added since 3/22/2012 are indicated with “Updated 3/30/12”, “Updated 4/3/2012”, “Updated 4/5/2012”, “4/9/2012”, and “4/16/2012”

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REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Add M96-12 to the IBC Fire Safety Hearing Order following M91-12
Remove FS165-12 from the IBC Fire Safety Hearing Order following FS164-12 (See the IBC Structural Hearing Order)

TENTATIVE ORDER OF DISCUSSION

2012 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE

FIRE SAFETY

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation **does not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some IBC-G code change proposals may not be included on this list, as they are being heard by other committees. Please consult the Cross Index of Proposed Changes.

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FS165-12: Code change will be heard by the IBC Structural Committee:

FS165 – 12
1405.11.1

Proponent: Bonnie Manley, P.E., American Iron and Steel Institute (bmanley@steel.org)

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

(Portions of code change not shown remain unchanged)

IBC – GENERAL

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Add G22-12 to the IBC General Hearing Order at the beginning of the order
Add G31-12, Parts I and II to the IBC General Hearing Order following G1-12
Add G257-12 to the IBC General Hearing Order following G31-12
Add G32-12, Parts I and II to the IBC General Hearing Order following G257-12
Add G59-12 to the IBC General Hearing Order following G56-12
Remove G70-12 from the IBC General Hearing Order following G69-12 (See the IBC Means of Egress Hearing Order)
Add G256-12, Part I through III to the IBC General Hearing Order following G50-12
Remove G87-12 from the IBC General Hearing Order following G86-12 (See the IBC Means of Egress Hearing Order)

TENTATIVE ORDER OF DISCUSSION

2012 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE

GENERAL

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation **does not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some IBC-G code change proposals may not be included on this list, as they are being heard by other committees. Please consult the Cross Index of Proposed Changes.

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2012 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE – GENERAL

Updated 4/5/2012

G7 – 12
202

Proponent: Gregg Achman, Hearth & Home Technologies (achmang@hearthnhome.com)

THIS PROPOSAL IS ON THE AGENDA OF THE INTERNATIONAL MECHANICAL CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

(Portions of code change not shown remain unchanged)

Updated 3/22/2012

G68-12: Code change will be heard by the IBC Means of Egress Committee:

G68 – 12
202, 407.4, 422.3.1 (NEW)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare and Carl Baldassarra, P.E., FSFPE Chair, ICC Code Technology Committee (CTC)

THIS CODE CHANGE WILL BE HEARD BY THE IBC MEANS OF EGRESS COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

(Portions of code change not shown remain unchanged)

Updated 3/22/2012

G73-12: Code change will be heard by the IBC Means of Egress Committee:

G73 – 12
407.4.3 (NEW), 1005.7.1.2; (IFC [B] 1005.7.1.2)

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

THIS CODE CHANGE WILL BE HEARD BY THE IBC MEANS OF EGRESS COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

(Portions of code change not shown remain unchanged)

G75-12: See highlighted revisions:

G75 – 12
407.4.3.6.1

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

Revise as follows:

407.4.3.6.1 Area. *Care suites* of rooms, other than sleeping rooms, shall have an area not greater than ~~10,000~~ 12,500 square feet (~~929~~ 1 161 m^2).

Exception: *Care suites* not containing sleeping rooms shall be permitted to be not greater than 15,000 sq feet (1 394 m^2) 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:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

407.4.3.6.1-G-PEAKE

G87-12: Code change will be heard by the IBC Means of Egress Committee:

G87 – 12
412.7 (NEW), Table 412.7 (NEW), 412.7.1 (NEW), Table 1016.2 (IFC [B] Table 1016.2)

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company (grkeith@mac.com), Jay Wallace, The Boeing Company (jay.s.wallace@boeing.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC MEANS OF EGRESS COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

(Portions of code change not shown remain unchanged)

G101-12: Replace table as follows:

G101 – 12

406.6.1, [F] 415.8.1.1, [F] 415.8.2.1.1, Table 503, 503.1, 503.1.1, 503.1.2, 503.1.3, 504, 504.1, 504.1.1 (NEW), 504.1.2 (NEW), 504.1.3 (NEW),504.2, 504.3, Table 504.3 (NEW), 505.4, Table 504.4 (NEW), 506, 508.8, 507.8.1, 507.8.1.1, 507.8.4, 508.2.1, 508.2.2, 508.2.3, 510.2, 3102.4, 3102.5, 3412.6.1 (IEBC [B] 1412.6.1), 3412.6.1.1 (IEBC [B] 1412.6.1.1), 3412.6.2 (IEBC [B] 1412.6.2), 3412.6.2.1 (IEBC [B] 1412.6.2.1)

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

TABLE 506.2[a,b]
ALLOWABLE AREA FACTOR (A_t = NS, S1, S13R, or SM, as applicable) IN SQUARE FEET

OCCUPANCY CLASSIFICATION	SEE FOOTNOTES	TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
A-1	NS	UL	UL	15,500	8,500	14,000	8,500	15,000	11,500	5,500
	S1	UL	UL	62,000	34,000	56,000	34,000	60,000	46,000	22,000
	SM	UL	UL	46,500	25,500	42,000	25,500	45,000	34,500	16,500
A-2	NS	UL	UL	15,500	9,500	14,000	9,500	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	60,000	46,000	24,000
	SM	UL	UL	46,500	28,500	42,000	28,500	45,000	34,500	18,000
A-3	NS	UL	UL	15,500	9,500	14,000	9,500	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	60,000	46,000	24,000
	SM	UL	UL	46,500	28,500	42,000	28,500	45,000	34,500	18,000
A-4	NS	UL	UL	15,500	9,500	14,000	9,500	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	60,000	46,000	24,000
	SM	UL	UL	46,500	28,500	42,000	28,500	45,000	34,500	18,000
A-5	NS	UL	UL	UL	UL	UL	UL	UL	UL	UL
	S1									
	SM									
B	NS	UL	UL	37,500	23,000	28,500	19,000	36,000	18,000	9,000
	S1	UL	UL	150,000	92,000	114,000	76,000	144,000	72,000	36,000
	SM	UL	UL	112,500	69,000	85,500	57,000	108,000	54,000	27,000
E	NS	UL	UL	26,500	14,500	23,500	14,500	25,500	18,500	9.500
	S1	UL	UL	106,000	58,000	94,000	58,000	102,000	74,000	38,000
	SM	UL	UL	79,500	43,500	70,500	43,500	76,500	55,500	28,500
F-1	NS	UL	UL	25,000	15,500	19,000	12,000	33,500	14,000	8.500
	S1	UL	UL	100,000	62,000	76,000	48,000	134,000	56,000	34,000
	SM	UL	UL	75,000	46,500	57,000	36,000	100,500	42,000	25,500
F-2	NS	UL	UL	37,500	23,000	28,500	18,000	50,500	21,000	13,000
	S1	UL	UL	150,000	92,000	114,000	72,000	202,000	84,000	52,000
	SM	UL	UL	112,500	69,000	85,500	54,000	151,500	63,000	39,000
H-1	NSc	21,000	16,500	11,000	7,000	9.500	7,000	10,500	7,500	NP
	S1									
H-2	NSc	21,000	16,500	11,000	7,000	9.500	7,000	10,500	7,500	3,000
	S1									

OCCUPANCY CLASSIFICATION	SEE FOOTNOTES	TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
	SM									
H-3	NSc	UL	60,000	26,500	14,000	17,500	13,000	25,500	10,000	5,000
	S1									
	SM									
H-4	NSc,d	UL	UL	37,500	17,500	28,500	17,500	36,000	18,000	6,500
	S1	UL	UL	150,000	70,000	114,000	70,000	144,000	72,000	26,000
	SM	UL	UL	112,500	52,500	85,500	52,500	108,000	54,000	19,500
H-5	NSc,d	UL	UL	37,500	23,000	28,500	19,000	36,000	18,000	9,000
	S1	UL	UL	150,000	92,000	114,000	76,000	144,000	72,000	36,000
	SM	UL	UL	112,500	69,000	85,500	57,000	108000	54,000	27,000
I-1	NSd,e,f	UL	55,000	19,000	10,000	16,500	10,000	18,000	10,500	4,500
	S1	UL	220,000	76,000	40,000	66,000	40,000	72,000	42,000	18,000
	SM	UL	165,000	57,000	30,000	49,500	30,000	54,000	31,500	13,500
I-2	NSd,g	UL	UL	15,000	11,000	12,000	NP	12,000	9,500	NP
	S1	UL	UL	60,000	44,000	48,000	NP	48,000	38,000	NP
	SM	UL	UL	45,000	33,000	36,000	NP	36,000	28,500	NP
I-3	NSd,e	UL	UL	15,000	10,000	10,500	7,500	12,000	7,500	5,000
	S1	UL	UL	45,000	40,000	42,000	30,000	48,000	30,000	20,000
	SM	UL	UL	45,000	30,000	31,500	22,500	36,000	22,500	15,000
I-4	NSd,e,h	UL	60.500	26,500	13,000	23,500	13,000	25,500	18,500	9,000
	S1	UL	121,000	106,000	52,000	94,000	52,000	102,000	74,000	36,000
	SM	UL	181,500	79,500	39,000	70,500	39,000	76,500	55,500	27,000
M	NS	UL	UL	21,500	12,500	18,500	12,500	20,500	14,000	9,000
	S1	UL	UL	86,000	50,000	74,000	50,000	82,000	56,000	36,000
	SM	UL	UL	64,500	37,500	55,500	37,500	61,500	42,000	27,000
R-1	NSd,i	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000
	S13R									
	S1	UL	UL	96,000	64,000	96,000	64,000	82,000	48,000	28,000
	SM	UL	UL	72,000	48,000	72,000	48,000	61,500	36,000	21,000
R-2	NSd,i	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000
	S13R									
	S1	UL	UL	96,000	64,000	96,000	64,000	82,000	48,000	28,000
	SM	UL	UL	72,000	48,000	72,000	48,000	61,500	36,000	21,000
R-3	NSd,i	UL	UL	UL	UL	UL	UL	UL	UL	UL
	S13R									
	S1									
	SM									
R-4	NSd,i	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000
	S13R									
	S1	UL	UL	96,000	64,000	96,000	64,000	82,000	48,000	28,000
	SM	UL	UL	72,000	48,000	72,000	48,000	61,500	36,000	21,000
S-1	NS	UL	48,000	26,000	17,500	26,000	17,500	25,500	14,000	9,000
	S1	UL	192,000	104,000	70,000	104,000	70,000	102,000	56,000	36,000
	SM	UL	144,000	78,000	52,500	78,000	52,500	76,500	42,000	27,000
S-2	NS	UL	79,000	39,000	26,000	39,000	26,000	38,500	21,000	13,500

OCCUPANCY CLASSIFICATION	SEE FOOTNOTES	TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
	S1	UL	316,000	156,000	104,000	156,000	104,000	154,000	84,000	54,000
	SM	UL	237,000	117,000	78,000	117,000	78,000	115,500	63,000	40,500
U	NS	UL	35,500	19,000	8,500	14,000	8,500	18,000	9,000	5,500
	S1	UL	142,000	76,000	34,000	56,000	34,000	72,000	36,000	22,000
	SM	UL	106,500	57,000	25,500	42,000	25,500	54,000	27,000	16,500

(Portions of table not shown remain unchanged)

(Portions of code change not shown remain unchanged)

G108-12: Revised reason statement:

G108 – 12
Table 503

Proponent: Dennis Richardson, P.E., CBO, City of Salinas, Tri-Chapter (Penisula, East Bay and Monterey Chapters, ICC) (dennisrichardsonpe@yahoo.com)

Revise as follows:

TABLE 503
ALLOWABLE BUILDING HEIGHTS AND AREAS[a, b]
Building height limitations shown in feet above grade plane. Story limitations shown as stories above grade plane.
Building area limitations shown in square feet, as determined by the definition of "Area, building," per story

Group		TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
	HEIGHT (feet)	UL	160	65	55	65	55	65	50	40
		STORIES(S) AREA (A)								
R-2	S A	UL UL	11 UL	~~4~~ 5 24,000	4 16,000	4 24,000	4 16,000	4 20,500	~~3~~ 4 12,000	2 7,000

(Portions of table not shown remain unchanged)

Reason: This code change encourages the use of light-frame one hour rated construction for a greater portion of the construction of apartment buildings. Not only is this a sustainable practice reducing greenhouse gas emissions, but by utilizing more light-frame construction for this type of project, costs are reduced making rental housing more viable on difficult urban infill projects. The City of Seattle has utilized a similar code modification for type VA construction for years with excellent safety results. Construction over 4 stories requires the use of an NFPA 13 sprinkler system throughout instead of the NFPA 13R system permitted for projects 4 stories and under. R-2 apartment construction is highly compartmentalized and fully sprinklered one hour construction has an excellent track record. Structural systems and construction methods to allow this type of multi level light frame construction continues to evolve and improve.

Currently a type VA, R-2 apartment can be constructed up to 4 stories with an NFPA 13R sprinkler system. This code change would not change that but would allow a type VA R-2 apartment to be constructed up to 5 stories if an NFPA 13 sprinkler system is provided in lieu of the 13R sprinkler system required for 4 stories.

It is important to note this code change would not allow the height of the building to be increased with either change so the volume of the fire compartment would be smaller as more floors could be fit into the same height.

In summary this code change encourages the sustainable practice of utilizing light frame construction on infill projects, results in a smaller fire compartment volume and when a wood frame apartment is increased to 5 stories, this code change requires an upgrade to an NFPA 13 sprinkler system.

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

G108-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

T503-G-RICHARDSON

G256-12: Add proposal as follows:

G256–12

PART I – INTERNATIONAL BUILDING CODE
105.7.7 (New), 202, 403.4.4 (New), 405.6 (New)
PART II – INTERNATIONAL FIRE CODE
IFC 105.6.16(new), 105.7.8, 202, IFC 511 (New), IBC 916 (New)
PART III – INTERNATIONAL FIRE CODE
IFC 1103.3 (New)

Proponent: Joe Pierce; Dallas Fire Department, TX Representing the ICC Fire Code Action Committee and Ronny J. Coleman, Fireforceone representing Rescue Air (Part I only)

THIS IS A 3 PART CODE CHANGE. ALL THREE PARTS WILL BE HEARD BY THE IBC GENERAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC GENERAL CODE DEVELOPMENT COMMITTEE.

PART I – IBC General

Add new text as follows:

[F] 403.4.4 Firefighter breathing air replenishment system. A firefighter breathing air replenishment system shall be provided in buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access. The firefighter breathing air replenishment system shall be installed in accordance with Section 916.

[F] 405.6 Firefighter breathing air replenishment system. A firefighter breathing air replenishment system shall be provided in underground buildings having a floor level more than 60 feet (18 288 mm) below the finished floor of the lowest level of exit discharge. The firefighter breathing air replenishment system shall be installed in accordance with Section 916.

[A] 105.7.7 Firefighter breathing air replenishment system. A construction permit is required for installation of or modification to firefighter breathing air replenishment systems and related equipment. Maintenance performed in accordance with this code is not considered a modification and does not require a construction permit.

Add new definition as follows:

SECTION 202
DEFINITIONS

[F] Firefighter breathing air replenishment system. An arrangement of piping, valves, fittings and equipment to facilitate the replenishment of breathing air in self contained breathing apparatus (SCBA) for firefighters engaged in emergency operations within buildings or structures.

PART II – IFC

Add new text as follows:

SECTION 511
FIREFIGHTER BREATHING AIR REPLENISHMENT SYSTEMS

511.1 General. Where required by the International Building Code, this code or otherwise installed, firefighter breathing air replenishment systems shall conform to the requirements of Sections 511.2 through 511.12.

Exception: When approved by the Fire Chief, alternative systems or methods to provide breathing air replenishment to firefighters under emergency conditions shall be permitted.

511.2 Where required. Firefighter breathing air replenishment systems shall be installed in new buildings as follows:

1. In buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access.
2. In underground buildings having a floor level more than 60 feet (18 288 mm) below the finished floor of the lowest level of exit discharge.

511.3 Permit required. A construction permit for the installation of or modification to firefighter breathing air replenishment systems is required as specified in Section 105.7.8.

511.4 Design. Firefighter breathing air replenishment systems shall be designed by a registered design professional and approved by the fire code official. The system shall be designed to provide Class D breathing air as specified in DOL 29 CFR Part 1910.134 and ANSI/CGA G-7.1. The system design shall include an acceptance and testing plan meeting the requirements of 511.11 and a maintenance, inspection and testing plan meeting the minimum requirements of 511.12.

511.5 System configuration. Breathing air shall be maintained in the piping of the system within the design pressure range, and be supplied by either a fire apparatus mounted air supply, a stored pressure air supply on site, or other approved engineered system.

511.5.1 Isolation Valves. Isolation valves shall be installed downstream of each air cylinder refill panel and shall be accessible to the fire department.

511.6 Construction and installation. Systems shall be constructed and installed in accordance with applicable design, construction and installation requirements of Chapter 24 of NFPA 1901, ASME B31.3, and the specifications of the registered design professional. All concealed tube and pipe joints shall be welded in accordance with nationally accepted standards.

511.6.1 Materials and equipment. All pressurized components of the system, including pneumatic fittings, tubing, and hose shall be listed or approved for their intended use, rated for the maximum allowable design pressure in the system, corrosion resistant, and comply with ASME B 31.3. Piping shall also comply with ASTM A269 and ASTM A479.

511.6.2 Protection of piping. System piping shall be protected from physical damage in an approved manner.

511.6.2.1 Pressure Relief Valve. Pressure relief valves shall be installed downstream of the pressure regulator inlet at each fill station. The relief valve shall meet the requirements of the CGA S-1.3 and shall not be field adjustable. The relief valve shall be designed to relieve system pressure at a pressure not exceeding 1.1 times the design pressure of the system. Pressure relief valve discharge shall terminate so that the exhaust air stream cannot impinge upon personnel in the area. Valves, plugs or caps shall not be installed in the discharge of a pressure relief valve. Where discharge piping is used the end shall not be threaded.

511.6.3 Design pressure. The system shall be designed to operate at a minimum design pressure of 110 percent of the fire department's normal SCBA fill pressure at NTP. The system design shall include a safety factor as required by ASME B 31.3. The system design pressure shall be marked in an approved manner on the fire department supply connections, and near the all pressure indicators.

511.6.4 Performance. The fill stations shall be capable of simultaneously filling a minimum of two empty breathing air cylinders equivalent to those used by the fire department to their design pressure within two minutes.

511.6.4 Compatibility. All fittings and connections intended to be used by the fire department shall be compatible with the fire department's air delivery system, including mobile air apparatus fittings and connections.

511.7 Fill stations. Fill stations shall be provided in accordance with Sections 511.7.1 and 511.7.2.

511.7.1 Location. The location and number of fill stations shall be approved by the fire chief.

511.7.2 Design. The design of fill stations shall comply with Sections 24.9.1.1 through 24.9.6 of NFPA 1901.

> **Exception:** When approved by the fire chief, fill stations shall be permitted to provide for the direct refilling of the firefighters breathing air cylinders in accordance with the construction, performance, and dimensional requirements of NFPA 1981 Section 6.4 and the operational requirements of NFPA 1500, Chapter 7.

511.8 External Mobile Air Connections. External mobile air connections shall be provided in accordance with Sections 511.8.1 through 511.8.4.

511.8.1 Location. External mobile air connections shall be provided in locations that are accessible to mobile air apparatus and approved by the fire code official.

511.8.2 Protection from vehicles. Where external mobile air connections are subject to vehicular damage, guard posts or other approved means shall be provided to protect the external mobile air connections in accordance with Section 312.

511.8.3 Clear space around connections. A working space of not less than 36 inches (762 mm) in width, 36 inches (914 mm) in depth and 78 inches (1981 mm) in height shall be provided and maintained in front of and to the sides of wall-mounted external mobile air connections and around the circumference of free-standing external mobile air connections, except as otherwise required or approved by the fire chief.

511.8.4 Performance. Each external mobile air connection shall allow the fire department's mobile air apparatus to connect to and augment the system with a constant source of breathing air, verify breathing air quality by means of visual displays, and remotely bypass the air storage system.

511.9 Security. All components of the firefighter breathing air replenishment system shall be safeguarded from unauthorized access in an approved manner.

511.10 Air monitoring system. The monitoring system shall ensure the systems air quality compliance with this section. The system shall automatically monitor air quality, moisture and pressure on a continual basis. The air monitoring system shall be equipped with a minimum of two pressure sensors, two content analyzers and two moisture sensors. The content analyzers shall be capable of detecting carbon monoxide, carbon dioxide, nitrogen, oxygen and hydrocarbon content with an accuracy level approved by the fire code official. The air monitoring system shall transmit a supervisory signal when any of the following levels are detected:

1. Carbon monoxide exceeds 5 ppm
2. Carbon dioxide exceeds 1,000 ppm
3. An oxygen level below 19.5 percent or above 23.5 percent
4. A nitrogen level below 75 percent or above 81 percent
5. Hydrocarbon (condensed) content exceeds 5 milligrams per cubic meter of air
6. The water concentration exceeds 24 ppm by volume
7. The pressure falls below 90% of the design pressure

The system shall be electrically supervised and monitored by an approved supervising station, or, when approved, shall initiate an audible and visual signal at a constantly attended location when off normal conditions occur.

511.11 Acceptance tests and completion. Upon completion of the installation, firefighter breathing air replenishment systems shall be tested to ensure compliance with the manufacturers' instructions and design documents. Oversight of the acceptance tests shall be provided by a registered design professional. The acceptance test shall include the following:

1. A pneumatic test of the complete system at a minimum test pressure of 110 percent of the design pressure of the system, using oil free dry air, nitrogen or argon shall be conducted. Testing shall meet all requirements of ASME B31.3 for pneumatic testing. Test pressure on the system shall be maintained for a minimum of 24 hours without leaks. During this test, all fittings, joints and system components shall be inspected for leaks. Any defects in the system or leaks detected shall be documented, and repaired or replaced.
2. The system shall be tested to assure the design volume and rate of fill is achieved at the filling point in the system most remote from the source of supply.
3. The air quality monitoring system shall be tested to verify that the visual indicators are accurate. It shall also be tested to verify that the proper supervisory signals are transmitted to the monitoring station when each sensor detects when concentrations or levels that are outside of the levels specified in Section 511.10.
4. The pressure monitoring system shall be calibrated and tested to verify that the visual indicators are accurate. It shall also be tested to verify that a low pressure supervisory signal is transmitted to the monitoring station when the system pressure is decreased to 90 percent of the system design pressure.
5. All connections (interior and exterior) intended for fire department use shall be tested for compatibility with the fire department's mobile air apparatus, SCBA cylinders and RIC/UAC connections.
6. A minimum of two air samples shall be taken from separate air cylinder fill locations and submitted to an accredited certified gas analysis laboratory to verify the system's cleanliness and that the air is certified as breathing air in accordance with Section 511.4. A written report of the analysis shall be submitted to the code official prior to the system being approved.

7. A performance test shall be conducted to assure the volume and flow requirements of the system design are met. This shall include filling the appropriate number of air cylinders from each available source (fire department air unit and on-site air storage) within the time specified in the design documents.

511.12 Inspection, testing, and maintenance Firefighter breathing air replenishment systems shall be maintained in an operative condition at all times, shall be replaced or repaired where defective, and shall be inspected at least annually. The breathing air within the system shall be tested at least quarterly to ensure the air meets NFPA 1989, Chapter 5, and this code. As part of the inspection, one air sample shall be taken and certified as breathing air in accordance with this section. The laboratory test results shall be maintained onsite and readily available for review by the fire code official.

Add new text as follows:

IBC SECTION 916
FIREFIGHTER BREATHING AIR REPLENISHMENT SYSTEMS

IBC [F] 916.1 General. Where required by this code or otherwise installed, firefighter breathing air replenishment systems shall conform to the requirements of this section.

Exception: When approved by the fire chief, alternative system or methods to provide breathing air replenishment to firefighters under emergency conditions shall be permitted.

IBC [F] 916.2 Permit required. A construction permit for the installation of or modification to firefighter breathing air replenishment systems is required as specified in Section 105.7.8.

IBC [F] 916.3 Design and installation. Firefighter breathing air replenishment systems shall be designed and installed in accordance with Section 511 of the *International Fire Code.*

Add new text to the IFC as follows:

[A] 105.6.16 Firefighter breathing air replenishment systems. An operational permit is required to maintain a firefighter breathing air replenishment system in a building or facility.

[A] 105.7.8 Firefighter breathing air replenishment system. A construction permit is required for installation of or modification to firefighter breathing air replenishment systems and related equipment. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

Add new definition to the IFC as follows:

IFC SECTION 202
DEFINITIONS

FIREFIGHTER BREATHING AIR REPLENISHMENT SYSTEM. An arrangement of piping, valves, fittings and equipment to facilitate the replenishment of breathing air in self contained breathing apparatus (SCBA) for firefighters engaged in emergency operations within buildings or structures

Add new standards to Chapter 80 as follows:

ASTM

ASTM A269 - 10	Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service 511.6.1
ASTM A479 / A479M - 11	Standard Specification for Stainless Steel Bars and Shapes for Use in Boilers and Other Pressure Vessels 511.6.1

CGA

G-7.1-1989	Commodity Specification for Air. 511.4

DOL

29 CFR Part 1910.134	Respiratory Protection - Personal Protective Equipment 511.4

NFPA

1901-09	Automotive Fire Apparatus 511.6, 511.7.2
1989-08	Breathing Air Quality for Fire Emergency Services Respiratory Protection 511.7.2, 511.12

PART III - IFC

Add new text as follows:

1103.3 Firefighter Breathing Air Replenishment Systems. Existing high rise buildings shall be equipped with a firefighter breathing air replenishment system.

Exception: Buildings with an automatic sprinkler system conforming to the requirements in Section 903.3.1.1.

Reason:

(COLEMAN Part I) Breathing air is critical for firefighting operations in structures. Historically, fire departments have supplied air bottles by means of a "bottle brigade", whereby firefighters manually transport air bottles up stairways. This is usually accomplished by stationing a firefighter on alternating floors, and each firefighter carries two to four bottles at a time up two floors, passes them to the next firefighter, then goes down two flights of stairs and receives more air bottles from the firefighter stationed below. This process is extraordinarily firefighter intensive, and takes firefighters away from their primary mission of rescue and firefighting. Even when fires are insignificant or controlled by sprinklers, copious amounts of smoke and other combustion byproducts require the use of self contained breathing apparatus (SCBA) for extended periods of time to conduct search, rescue, suppression, and overhaul. These extended missions require a large number of air bottles to be transported to support the operation. Transporting bottles is not the highest and best use of highly trained firefighters – it is a costly solution to a serious problem that can be addressed by installing firefighter breathing air replenishment systems.

Firefighter Breathing Air Systems were introduced in the late 1980's. These systems are now required in a number of communities throughout the United States, and several hundred systems have been installed and are now operational. The system has been called a "standpipe for air", which is an accurate description. The system consists of stainless steel, high pressure piping that is supplied by on site air storage, fire department air supply units, or both; a few systems have breathing air compressors installed. Air filling stations are then strategically located throughout the building, using either quick fill connections or rupture containment fill stations complying with NFPA 1901. These systems allow firefighters to refill breathing air cylinders inside the fire building, negating the required "bottle brigade", and making more firefighters available for search, rescue, and fire suppression operations.

Just as we pipe water into large buildings for firefighting use, this proposal will allow air to be piped into large buildings for firefighting use. Without water and air, our firefighters cannot safely conduct interior fire suppression operations.

Lastly, as major risks are constructed in our communities, it is placing increased demand on the capacity of that department to perform under emergency conditions. Seasoned firefighters are very much aware that events in the types of risks covered by this proposal result in huge impacts on the use of the staffing resources. In fact, a major mobilization can often strip the community of its basic fire protection everywhere else in the community. It is now being recognized as a basic principle of fire protection that once a community has identified an unacceptable risk that risk mitigation must occur to reduce that risk to a level that allows the fire department to be both efficient and effective in coping with it.

(PIERCE Part I, II and III) This proposal provides requirements for firefighter breathing air replenishment systems used to refill firefighter SCBA cylinders during an emergency. These systems are being installed in a number of cities across the country. This code change is intended to provide consistent, national requirements that ensure the systems will:

1. Be reliable
2. Provide Safe Breathing air in compliance with federal (OSHA) regulations and existing national standards and
3. That the systems meet, at a minimum, national standards for durability, safety, and readiness.

In order for firefighters to extinguish any significant fire, they must have two things: Water to put on the fire, and air to breathe in the process. In past generations, when buildings grew so large and tall as to be beyond the capabilities of fire departments, standpipes became a staple of fire protection systems, allowing firefighters to take relatively small amounts of hose inside buildings, and use water supplied by standpipe hose connections in close proximity to the fire. However, air delivery to firefighters has always presented a difficult, labor intensive process, usually involving the equivalent of a "bucket brigade" to haul air bottles to a staging area where they can be exchanged for bottles used by firefighters engaged in the operation. These empty bottles must then be transported outside the building to a mobile air unit, usually several blocks away from the fire building, to be refilled and redeployed. In tall buildings, where firefighters are may be required to operate in IDLH (immediately dangerous to life and health) atmospheres for extended periods, the only logical solution is to replenish air cylinders inside the building – no other solution can provide this level of firefighter safety.

The fact is that most communities cannot muster the required resources to supply air to firefighters operating in tall buildings in any other fashion. In major cities that do have the available staffing, those firefighters could be better utilized conducting rescue, firefighting, and other emergency operations instead of hauling air bottles up several flights of stairs for the many hours required to bring a high rise fire under control. At the First Interstate Building fire in Los Angeles, it was reported that over 600 air cylinders were used during the firefighting operation.

Technology is now available to provide the equivalent of a standpipe for air, allowing firefighters to refill air bottles safely, quickly and efficiently inside buildings. Dozens of jurisdictions around the country have adopted local ordinances to require such systems. This code change is a blend of the existing ordinances, consolidated with requirements contained in federal statutes for breathing air quality, and references to appropriate national standards. This code change provides a cost effective solution to a significant fire suppression problem.

Many new buildings are equipped with automatic sprinkler systems. Even when sprinklers operate, fires produce toxic smoke and gases, requiring firefighters to use SCBA in those atmospheres. Just as standpipes are required in large buildings, firefighter breathing air replenishment systems should also be required.

One manufacturer of these systems states that the average cost of a system is one eighth (1/8) of one percent of the construction cost of a building. In one recent case in northern California, the total cost of installing a system in a nine story building was about $190,000. This is a small price to pay for the additional protection these systems provide to the public and to firefighters.

The systems consist of stainless steel tubing (usually 3/8 or ½ inch) attached to off-the-shelf couplings, valves, fittings, gauges, etc., and housed in appropriate, secured enclosures. Air under pressure is maintained on the system at all times to assure piping integrity and quality. Two types of filling stations are available, one employs rupture containment for air bottles; the other is for emergency quick filling of air cylinders through a fitting provided on all NFPA compliant SCBA's. This is reflected in proposed Section 511.7.2 – the requirement is for fill stations complying with NFPA 1901, which requires rupture containment at fill stations; the exception is to recognize NFPA 1500 and NFPA 1981, which permit rapid filling of air bottles without rupture containment under emergency conditions.

Some air is always stored on-site to maintain air pressure. The volume of air stored is contingent upon the local fire department's needs. To supplement the on-site storage, air inlet connections are located outside the building for fire department mobile air units to connect and supply air to the system (these are known as Emergency Mobile Air Connections, or EMAC's). These connections include pressure relief valves, gauges, fittings, and valves to allow the fire department to safely and efficiently supply breathing air to refilling operations inside the building. The components are located inside weather proof enclosures to avoid deterioration from exposure to the elements.

Air quality is provided for in several ways. Continual air monitoring is required, assuring that the air in the system always meets the OSHA and NFPA requirements for content (CO, CO_2, N, etc.). The on-site monitoring system is accessible to response personnel and inspectors for observation and inspection. In addition to the continuous monitoring, air samples are drawn and laboratory tested quarterly to verify the on-site system is measuring properly. This is in compliance with national standards and federal regulations.

The authors of this code proposal attempted to utilize existing national standards where they exist, and to provide for local conditions through the exceptions. The effect is a code requirement that provides for firefighter safety, increased operational capability, and an appropriate amount of flexibility for individual community needs.

Cost Impact: This code change proposal will increase the cost of construction.

Analysis: A review of the standard proposed for inclusion in the code, ASTM A269 – 10, ASTM A479 / A479M - 11 CGA G-7.1-1989, DOL 29 CFR Part 1910.134, NFPA 1901-09 and NFPA 1989-08, 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.

G256-12

PART I – IBC GENERAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IFC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART III – IFC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

G257-12: Add proposal as follows:

G257-12

308.4, 308.4.1, 308.4.1.1(new), 308.4.1.2(new)

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

Revise as follows:

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

308.4.1 Occupancy Conditions. Buildings of Group I-2 shall be classified as one of the occupancy conditions indicated in Sections 308.4.1.1 through 308.4.1.2.

308.4.1.1 Condition 1. This occupancy condition shall include facilities that provides nursing and medical care and could also provide emergency care, surgery, obstetrics, or in-patient stabilization units for psychiatric or detoxification, including, but not limited to hospitals.

308.4.1.2 Condition 2. This occupancy condition shall include facilities that provides nursing and medical care but does not provide emergency care, surgery, obstetrics, or in-patient stabilization units for psychiatric or detoxification, including, but not limited to nursing homes and foster care facilities.

~~**308.4.1**~~ **308.4.2 Five or fewer persons receiving care.** A facility such as the above with five or fewer persons receiving such care shall be classified as Group R-3 or shall comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or with Section P2904 of the *International Residential Code*.

Reason: This proposal is to provide a subset of occupancy uses amongst those healthcare uses that have been regulated together as one unit for many years.

Due to the diversification of how medical care is provided in the 5 characteristic occupancies given currently in the IBC for Group I-2 occupancies, this proposal splits the I-2 into two basic conditions; short-term care (hospitals) and long-term care (nursing homes). Whereas both of these subsets are based on medical treatment and are an occupancy group that the occupants are provided with a defend-in-place method of safety, changes in the delivery of care in the two different subgroups has changed in the past 10-20 years. Some examples of the changes include:

- Within Hospitals, there has been a general increase in the floor area per patient due to the increase in diagnostic equipment and the movement towards single occupant patient rooms.
- Within Nursing Homes, there has been a trend to provide more residential-type accommodations, such as group/suite living, fuel-fired appliances, and cooking facilities in residential areas.

The 'condition' concept is based on Group I-3 occupancies and the split this occupancy needs to effectively regulate amongst several levels of restraint. The benefit to the 'condition' concept, when compared to new use groups (i.e. I-5 or I-6) is that a majority of code requirements will still apply to all Group I-2 occupancies; such as mechanical systems, property maintenance, and rehabilitation. Furthermore, it removes potentially confusing code language from requirements when 'building specific' language is placed into code sections; such as the case with the current fire alarm section pertaining to Group I-2.

Detoxification facilities and facilities where patients receive psychiatric treatment can vary from hospitals where patients are at the beginning stages or detoxification or at psychiatric extremes that require medical care. These would be classified as Occupancy Condition 1. If the facilities were more along the line of counseling and rehabilitation in a care environment, the facility could be classified as Condition 2, or even as a Group I-1.

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

G257-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	SF	AMF	DF

IBC – MEANS OF EGRESS

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Add G70-12 to the IBC Means of Egress Hearing Order following G68-12
Add E2-12, Parts I and IV to the IBC Means of Egress Hearing Order following G70-12
Add G71-12, Parts I through III to the IBC Means of Egress Hearing Order following G58-12
Added G245-12 to the IBC Means of Egress Hearing order following G243-12

TENTATIVE ORDER OF DISCUSSION

2012 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE

MEANS OF EGRESS

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation **does not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some IBC-G code change proposals may not be included on this list, as they are being heard by other committees. Please consult the Cross Index of Proposed Changes.

*E96-12: NUMBER NOT USED*E1-12

G57-12
G68-12
G70-12
E2-12, Part I
E2-12, Part II
E2-12, Part III
E2-12, Part IV
E3-12
G85-12
E4-12
G52-12
E5-12
G9-12
G51-12
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2012 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE – MEANS OF EGRESS

Updated 4/16/2012
NP

E15-12: Replace proposal as follows:

E15 – 12
1004.1.1.1, 1004.1.1.2, 1004.1.1.3 (New), 1014.2 (IFC [B] 1004.1.1.1, 1004.1.1.2, 1004.1.1.3 (New), 1014.2)

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

Revise as follows:

1004.1.1 (IFC 104.1.1) Cumulative occupant loads. Where the path of egress travel includes intervening rooms, areas or spaces, cumulative occupant loads shall be determined in accordance with this section.

1004.1.1.1 (IFC [B] 1004.1.1.1) Intervening spaces. Where occupants egress from one room, area or space through ~~another~~ others, the ~~design~~ *occupant load* shall be assigned individually for each area and considered as required by Section 1014.2. ~~be based on the cumulative *occupant loads* of all rooms, areas or spaces to that point along the path of egress travel.~~

1004.1.1.2 (IFC [B] 1004.1.1.2) Adjacent levels for mezzanines. The *occupant load* of a *mezzanine* ~~or story~~ with all required egress through a room, area or space on an adjacent level shall be added to the *occupant load* of that room, area or space.

Where a mezzanine is served by a means of egress, independent of the room or space in which it is located, the portion of occupant load accumulated to the room or space shall be added to the occupant load of that room or space.

Exceptions:

1. Where a mezzanine is not required to be open in accordance with Exception 2 of Section 505.2.3, provided the loss of all exit access, through the room or space the mezzanine is located in, shall not reduce the available capacity from the mezzanine to less than 50% of the required egress capacity from the mezzanine.
2. Where a mezzanine is not required to be open in accordance with Exception 5 of Section 505.2.3.

1004.1.1.3 (IFC [B] 1004.1.1.3) Adjacent stories. The portion of the occupant load accumulated from a story with exit access through an adjacent story shall be added to the story where access to an exit along that path is provided.

Exceptions:

1. In occupancies other than Group H and I, provided the loss of all exit access through the adjacent story shall not reduce the available egress capacity from the story under consideration to less than 50 percent of its required egress capacity.
2. In occupancies other than Group H and I, where unenclosed exit access stairways serving only the first and second stories of a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, provided at least two means of egress are provided from both floors.

1014.2 (IFC [B] 1014.2) Egress through intervening spaces. Egress through intervening spaces shall comply with this section. The capacity and minimum number of exits or exit access doorways and paths required from all interconnected

portions of the exit access on a given story shall be considered individually for each room and in the aggregate for each portion of the exit access. The capacity and minimum number of exits or exit access doorways shall be provided based on the requirements in Sections 1005 and 1015, Egress capacity along any path of egress shall be based on the portion of the occupant loads from rooms, areas or spaces accumulated along that egress path.

1. Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas and the area served are accessory to one or the other, are not a Group H occupancy and provide a discernible path of egress travel to an exit.

   Exception: Means of egress are not prohibited through adjoining or intervening rooms or spaces in a Group H, S or F occupancy when the adjoining or intervening rooms or spaces are the same or a lesser hazard occupancy group.
2. An exit access shall not pass through a room that can be locked to prevent egress.
3. Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.
4. Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes.

   Exceptions:

   1. Means of egress are not prohibited through a kitchen area serving adjoining rooms constituting part of the same dwelling unit or sleeping unit.
   2. Means of egress are not prohibited through stockrooms in Group M occupancies when all of the following are met:
      2.1 The stock is of the same hazard classification as that found in the main retail area;
      2.2 Not more than 50 percent of the exit access is through the stockroom;
      2.3 The stockroom is not subject to locking from the egress side; and
      2.4 There is a demarcated, minimum 44-inch-wide (1118 mm) aisle defined by full- or partial-height fixed walls or similar construction that will maintain the required width and lead directly from the retail area to the exit without obstructions.

Reason: A number of code changes over the past two code cycles have, when combined together, made the code more restrictive as written or interpreted even though as advertised the individual code changes were not intended to increase the cost of construction. The issue primarily revolves around the assignment or accumulation of occupant load from one location to another and whether or not all, or none, or a portion of the occupant load from one area obtaining access to required exits through another story or area is added to the occupant load of that story or area for determination of the number of exits or exit access doorways and egress width.

This code change addresses two areas of concern that the committee may wish to consider separately: Egress on a given level and egress from one story or level through another by way or unenclosed exit access stairways.

In summary on a given level: This code change reinforces the concept that the occupant load is assigned to each occupied area individually. When there are intervening rooms, each area must be considered both individually and in the aggregate with other portions of the exit access to determine the number and width of exit access. Portions of the occupant load are accumulated along egress paths to determine the capacity of individual egress elements along those paths. But once occupants from one area make a choice and head out along one of several independent paths of egress travel, their occupant load is not added to some other area to determine how many paths of travel would be required from that different area as if a second fire were to occur at the same time in that area. Example D is provided at the end of this reason statement.

In summary on separate levels: This code change also attempts to treat egress design along unenclosed exit access stairways through adjacent stories or through adjacent levels (in the case of mezzanines) in a similar manner recognizing previous limited instances where open exit access stairways from stories were considered as exits and the capacity (width) was required to be maintained but the occupant load was not added to the adjacent story providing exit access. Example A is provided in this reason statement.

This code change also recognizes mezzanines with independent egress can function similar to a story in a building. Example B is provided in this reason statement.

This code change recognizes mezzanines with sole egress through a room or area should have the occupant load added to that room or area. Example C is provided in this reason statement.

In order to treat open exit access stairways, for both adjacent stories and levels (mezzanines), equally there must be some limitation on the loss of provided egress capacity from a mezzanine or story that gains a portion of its egress capacity through adjacent levels.

Except for the limited previous exceptions of occupancies other than H or I on the first or second floor equipped with sprinklers throughout (Example E), this code change places a limit of the loss of egress capacity through adjacent levels to no more than 50% of the required capacity. In the event more than 50% of required egress capacity would be blocked if egress through the adjacent level is lost then this code change requires the portion of occupant load to be added to the story or level where exit access is provided. This is consistent with the concept found in 2012 IBC section 1005.5 and is necessary in the case where two of three means of egress from a mezzanine could be open or two of four means of egress from a story could have open exit access through a story (both cases with more than 50% of the required capacity unprotected through the adjacent level or story).

Description of Examples A, B and C: All three examples are a 10 story office building with a parking garage at the first two floors. Upper floors are cut away to help with view. All doors shown are 3'-0" x 6'-8" with 32" net clear. Typical design of each floor of the office building is for 850 occupants. Building is equipped throughout with a sprinkler system per Section 903.3.1.1 (NFPA 13). Each floor requires 3 exits or exit access stairways in accordance with Section 1021.2.4. A minimum of two interior or exterior exit stairways are required from each story above the second floor per Section 1021.1.

Total required net exit door width from each typical story = 850 x .15 = 127.5 inches < 128 inches provided, OK.

Loss of any one exit at interior exit stairway 1 results in no more than 50% of required capacity; Distribution of egress capacity OK per Section 1005.5.

Example A: An two story open office suite covers the entire 3rd and 4th floors is and has a portion of the floor cut away. Access to interior exit stairway 1 is provided from the 4th floor using unenclosed exit access stairway 1. The occupant load of the 3rd floor is 850 without considering any occupant load from the adjacent floor. Occupant load of the partially cut away 4th floor is now 600. The portion of occupant load going to interior exit

access stair way = 600 – 2 x 32/.15 = 174. Required width of exit access stair 1 = 174 x .20 = 34.6 inches therefore use 44 inch minimum exit access stair per Section 1009.4.

What occupant load is the third floor designed for? Are the typical floor exit doors and number of interior exit stairs code compliant?

If the portion of occupant load from the 4th floor utilizing the unenclosed exit access stair is added to the third floor occupant load (or all of the occupant load depending how the current code is interpreted), the third floor will now be over 1000 occupant load and 4 means of egress will be required from the third floor down through the building even though the occupant load for the overall building is reduced and previous codes would have allowed this condition in occupancies other than H and I.

This code change, for a B occupancy, would require the portion of the occupant load from the 4th floor to be added to the 3rd floor only if the exit access capacity required from the 4th floor would be reduced to less than 50% of required capacity if the exit access through the adjacent 3rd floor was blocked. In this example the egress would be ok as drawn. For H or I occupancies the portion of occupant load accumulated along the exit access stairway would be added to the occupant load of the story below as a requirement after this code change.

Example B: In this example the third floor does not communicate with any other floor but a mezzanine with an occupant load of 350 is installed. The mezzanine is served by an independent exit going into interior exit stairway 3 and by exit access stairway 1 providing access to the 3rd floor. The occupant load of the 3rd floor is 850 without considering any occupant load from the mezzanine.

What occupant load is the third floor designed for? Are the typical floor exit doors and number of interior exit stairs code compliant?

According to the current code all or a portion of the occupant load from the mezzanine (depending on how it is interpreted) would need to be added to the 3rd floor and in either case, even though the mezzanine has direct access to an exit the building would now require 4 means of egress from the 3rd floor down.

This code change for a B occupancy as shown, would require the portion of the occupant load from the third floor mezzanine to be added to the 3rd floor only if the exit access capacity required from the mezzanine would be reduced to less than 50% of required capacity if the exit access through the 3rd floor was blocked. For H or I occupancies the portions of occupant load accumulated along the exit access stairway would be added to the occupant load of the story below as a requirement of this code change.

For the B occupancy, egress would be ok as shown in the example.

Example C: In this example the third floor does not communicate with any other floor but a mezzanine with an occupant load of 350 is installed and the sole egress from the mezzanine is by two exit access stairways to the 3rd floor. The occupant load of the 3rd floor is 850 without considering any occupant load from the mezzanine.

What occupant load is the third floor designed for? Are the typical floor exit doors and number of interior exit stairs code compliant?

This example would be treated as required by current code where all of the occupant load from the mezzanine is added to the occupant load of the 3rd floor open office below. 3rd floor would now require 4 exits as the occupant load from the third story including the mezzanine would be greater than 1000.

Example D: In this example, the occupant loads assigned to each room or area based on 2012 IBC section 1004.1.2 and the function of the space. All door hardware is either panic or classroom hardware and in all cases is openable in the direction of door swing without the use of a key or special knowledge or effort. All door hardware can be locked with a key in the direction opposite of door swing for security purposes of individual areas. For this example each door is a single leaf from 36 inch minimum up to 48 inch maximum and the building is equipped throughout with an NFPA 13 sprinkler system. If additional door width is required at a door location, based on capacity, two 36" doors are provided.

In layout D.1, all rooms have adequate means of egress for the occupant load contained in the room when evaluated on an individual basis. The occupant load of the entire story is 700 and the story has an adequate number of exits when looked at in the aggregate (doors 3.1, 5.1 and 7.1).

When the Accounting Office and General Office are looked at in the aggregate, they have adequate egress for an aggregate occupant load of 400 for this portion of the exit access (doors 5.1 and 6.1 which both must be have capacity for 200 occupants). The lobby has a total of 20 occupant load and door 7.1 must be sized for an accumulated occupant load along this egress path of 360 (200 from door 6.1, 140 from door 4.1 and 20 from the lobby). Utilizing the concept of one fire, if there was a fire in the lobby then all occupants would have adequate access to other means of egress through doors 5.1 and 3.1. If the fire occurred when doors 4.1 and 6.1 are locked from the lobby side then the limited number of occupants in the lobby have access to adequate egress through door 7.1.

If the fire occurs in another room, the general office for example, the portion of occupant load from the general office and the sales office with egress through the lobby are not added to the occupant load of the lobby to determine the number of exits or exit access doors from the lobby but the occupant load is accumulated along this path to determine the required capacity of doors 7.1 along this path. Because those individuals from other rooms, if exiting from a fire through the lobby, would have already exercised their option of two means of egress from the room where the occupants originated and there is no need to add the occupants or the portion of the design occupant load through the lobby to the occupant load of the lobby to determine the number of means of egress from the lobby. The code does not assume both a fire that persons are exiting from and then encountering another different fire along the way.

Egress in layout D.1 would meet the code as revised by the proposed change.

In layout D.2, all rooms have adequate means of egress for the occupant load contained in the room when evaluated on an individual basis. The occupant load of the entire story is still 700 and the story has an adequate number of exits when looked at in the aggregate (doors 3.2, 5.2 and 7.2). Since the sales office also has required egress through the general office, the accounting office, general office and sales office must be looked at in the aggregate and based on the total aggregate occupant load of 680 for this portion of the exit access. Three exit or exit access doors are required and provided from this portion of the exit access (door 3.2, 5.2, and 6.2). The capacity of door 5.2 and 6.2 must be designed based on an accumulated occupant load 270 along each egress path which is determined as follows: (140, the portion from the sales office, plus 100 from the accounting office, and 300 from the general office) all divided by 2= 270. The capacity of door 7.2 is determined based on the occupant load of 270 used to determine the occupant load of door 6.2 along with the accumulated occupant load of 20 from the lobby for a total occupant load of290 for the capacity of door 7.2 along the continuation of this egress path. This is consistent with Figure 1004.4.4 of the 1012 IBC Commentary and its accompanying explanation.

Egress in layout D.2 would meet the code as revised by the proposed change.

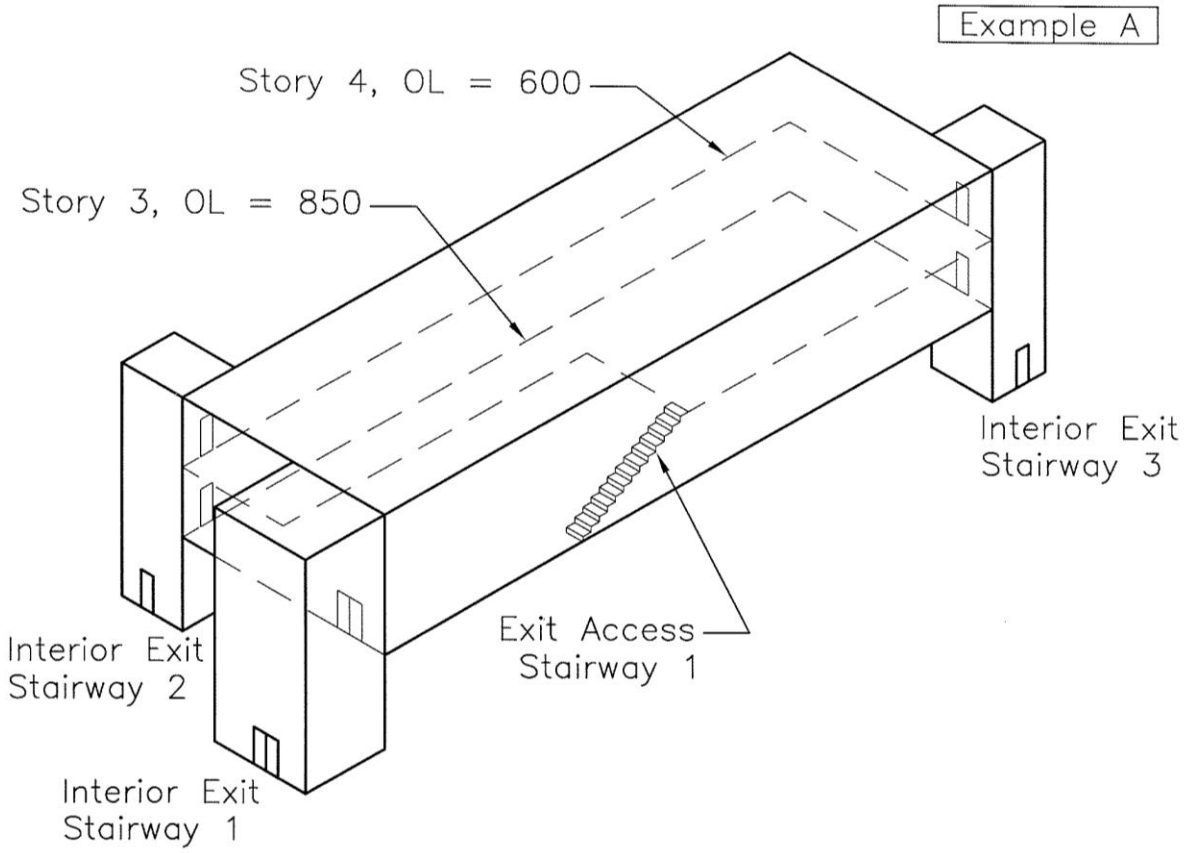
This example has adequate egress from each room, story and portion of the exit access when considered in the aggregate but it would not comply with the 2009 IBC because all occupants do not have access to all required exits from the story as was required by 2009 IBC section 1021.1 This was resolved by E5 and E120 in the past code cycle. This example would also not comply with the literal read of the 2012 IBC because all of the occupant load from the sales office and the accounting office would be added to the general office for a total of 680 requiring three means of egress from the general office.

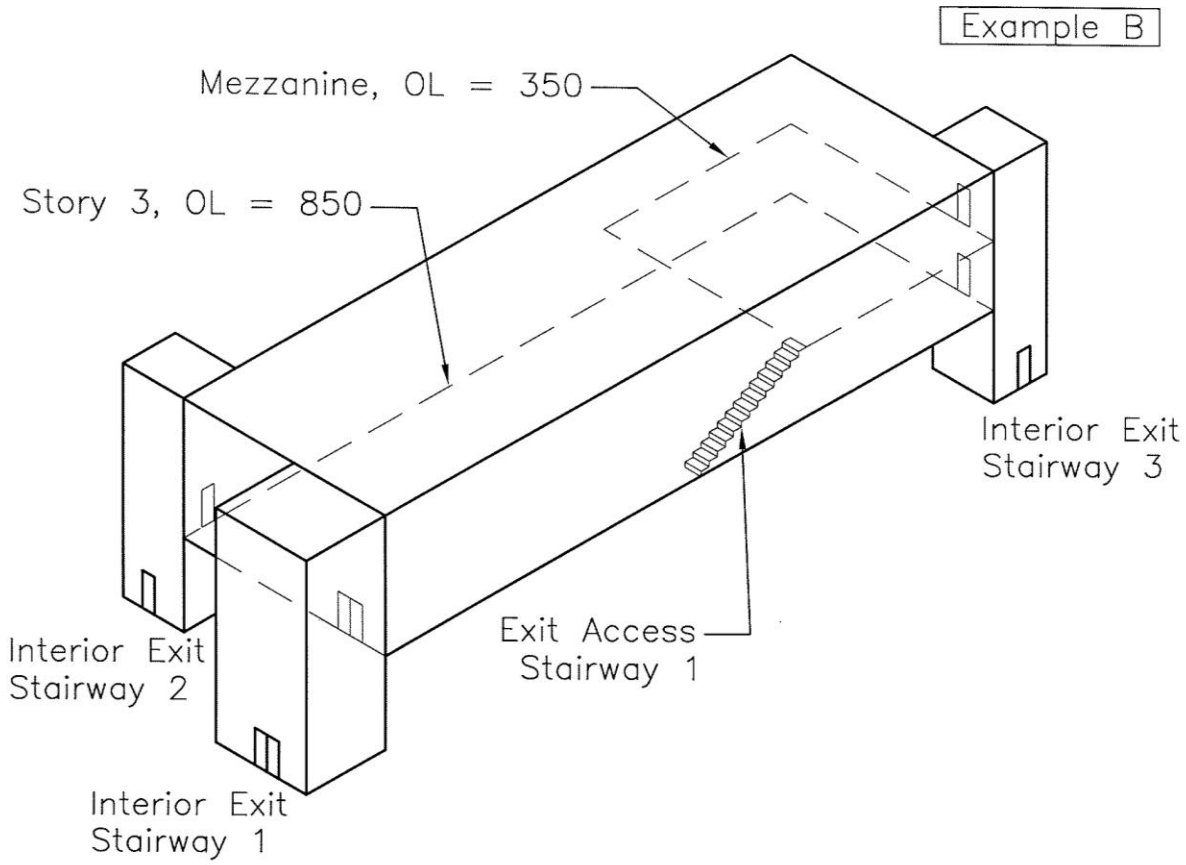
Example E: This example illustrates an egress system allowed for occupancies other than H and I in the first two floors of a building equipped throughout with an NFPA 13 sprinkler system. This arrangement was allowed under the 2006 IBC section 1020.1, exception 9 without adding the occupant load to the floor below. This code change would continue to allow this configuration as long as the capacity from each floor is maintained as required by the code.

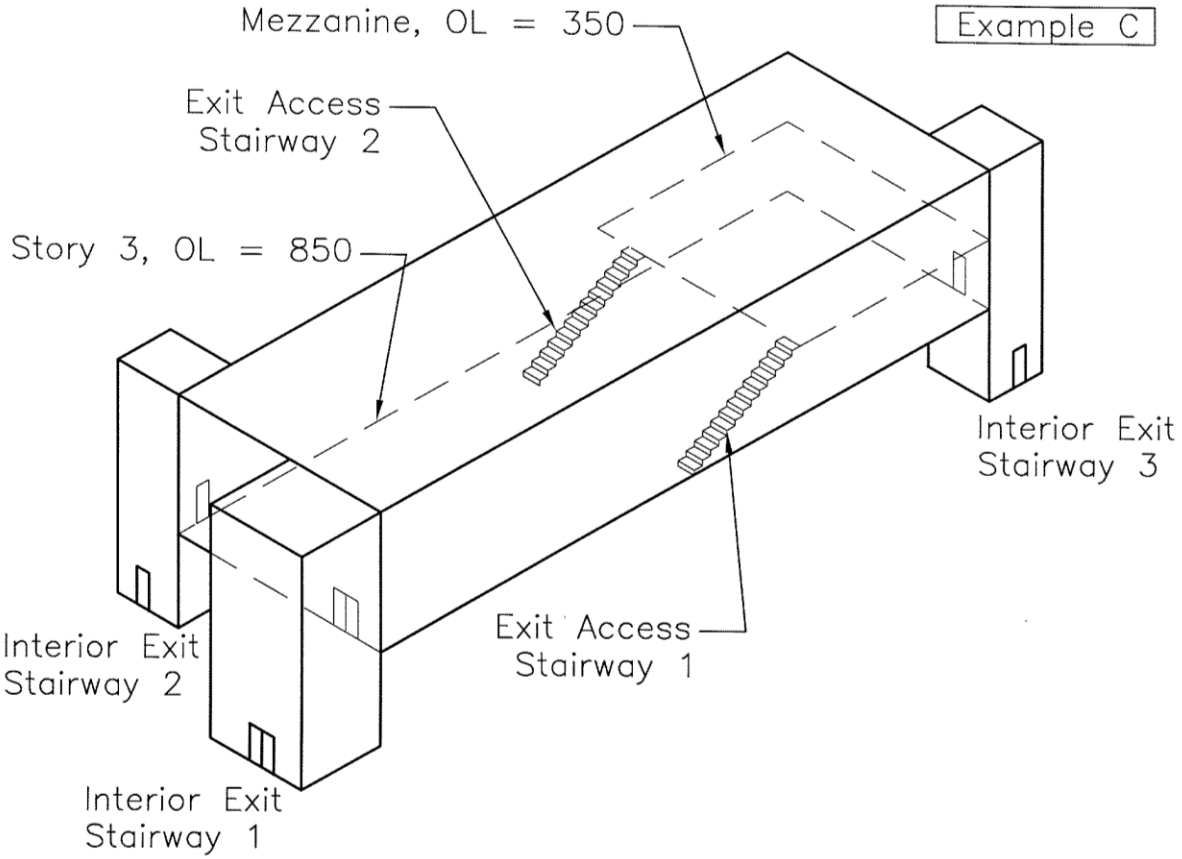
This configuration would apparently not meet the current code as the occupant load or a portion of the occupant load from the second floor would currently be required to be added to the occupant load of the first floor causing the occupant load to have three exits. This was apparently an unintended consequence of E122 06/07.

In Conclusion: This code change would clarify egress from a single level through intervening rooms would have occupant load assigned to each room and be evaluated both individually and in the aggregate for each portion of the exit access.

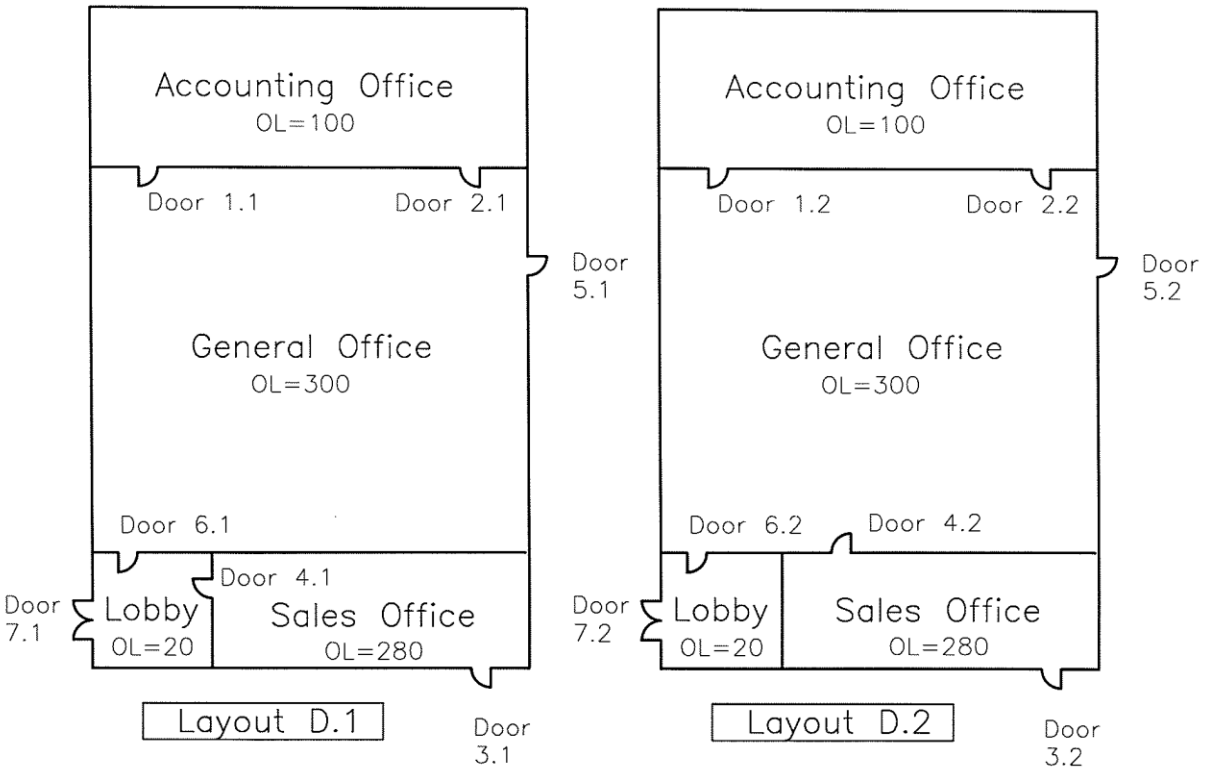
This code change would still require occupant load from an adjacent story or level to be added to an adjacent level when the sole egress occurs through the story. This code change provides a framework utilizing existing exceptions for the egress through an adjacent story or level to be considered in a similar manner depending on the degree of independent egress from the story or mezzanine.

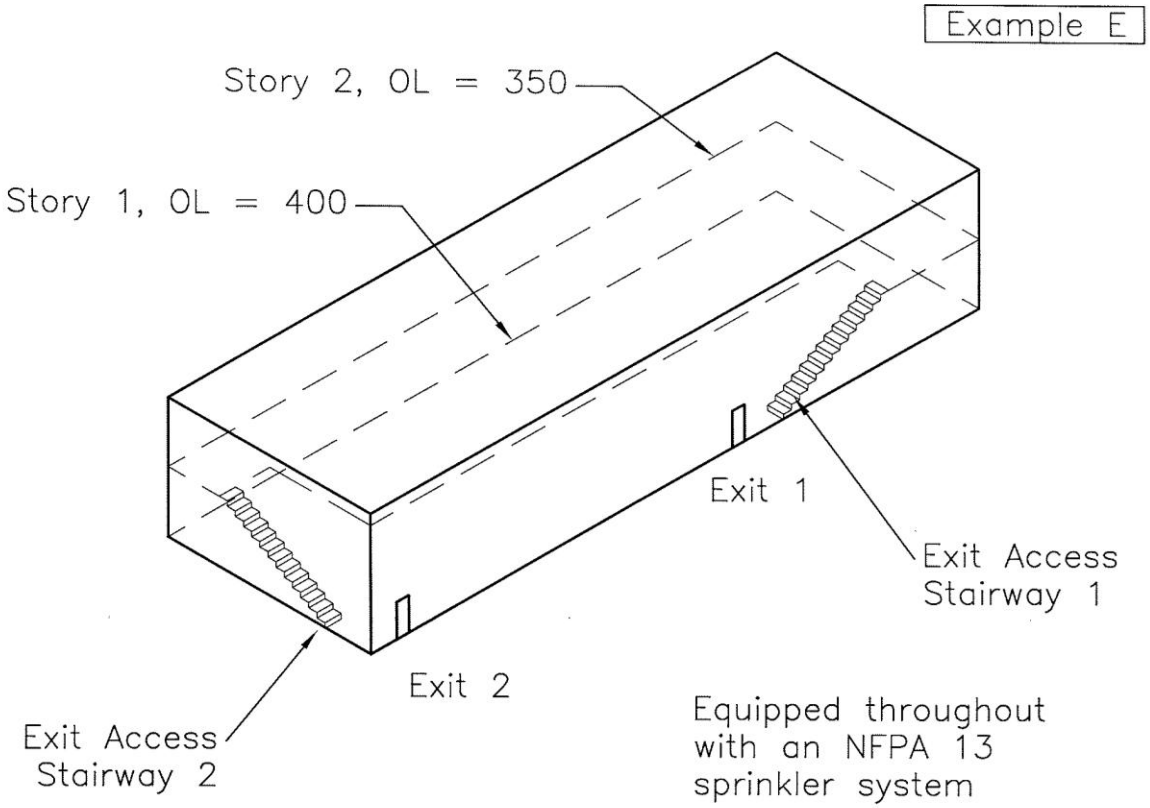

Example A
Story 4, OL = 600
Story 3, OL = 850
Interior Exit
Stairway 3
Exit Access
Stairway 1
Interior Exit
Stairway 2
Interior Exit
Stairway 1


Example B
Mezzanine, OL = 350
Story 3, OL = 850
Interior Exit
Stairway 3
Exit Access
Stairway 1
Interior Exit
Stairway 2
Interior Exit
Stairway 1



IBC 1004.1, Example D





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

E15-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1004.1.1.1-E-Richardson.doc

E116-12: Replace table as follows:

E116– 12
Table 1016.2 (IFC [B] Table 1016.2)

Proponent: Patrick A. McLaughlin, McLaughlin & Associates, representing Compressed Gas Association (pmclaugma@aol.com)

Revise as follows:

TABLE 1016.2 (IFC [B] TABLE 1016.2)
EXIT ACCESS TRAVEL DISTANCE[a]

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)	WITH SPRINKLER SYSTEM (feet)
A, E, F-1, M, R, S-1	200	250[b]
I-1	Not Permitted	250[b]
B	200	300[c]
F-2, S-2, U	300	400[c]
H-1	Not Permitted	75 [~~c~~ d]
H-2	Not Permitted	100[~~c~~ d]
H-3	Not Permitted	150[~~c~~ d]
H-4	Not Permitted	175[~~c~~ d]
H-5	Not Permitted	200 [c]
I-1, I-2, I-3	Not Permitted	200 [c]

For SI: 1 foot = 304.8 mm.

a. *(no change)*

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.

d. Occupancies equipped throughout with an *automatic sprinkler system* in accordance with Section 903.2.5.1.

Reason: H-1 thru H-4 occupancies are required to be sprinklered, however, if the H occupancy is located within another occupancy, that occupancy may or may not be sprinklered because the sprinkler system is not required throughout. As written, the travel distance allowance would not apply and there is no guidance on what the travel distance should be. Furthermore, the current footnote has led to erroneous interpretation of the code requiring the building to be spinklered throughout. In our opinion this was never the intent of this table. H occupancies cannot exit through a more hazardous occupancy, therefore the travel distances allowed within the H occupancy seem reasonable when exiting through another occupancy of lesser hazard.

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

E116-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

T1016.2-E-MCLAUGHLIN

E138-12: See revisions to below:

E138 – 12
1022.1, 1023.1 (IFC [B] 1022.1, 1023.1)

Proponent: Lee J. Kranz, City of Bellevue, Washington, representing Washington Association of Building Officials Technical Code Development Committee (lkranz@bellevuewa.gov)

Revise as follows:

1022.1 (IFC [B] 1022.1) General *Interior exit stairways* and *interior exit ramps* serving as an *exit* component in a *means of egress system* shall comply with the requirements of this section. *Interior exit stairways* and *ramps* shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an *exit passageway* conforming to the requirements of Section 1023, except as permitted in Section 1027.1. An *interior exit stairway* or *ramp* shall not be used for any purpose other than as a means of egress ~~and a circulation path~~.

Exception: An interior exit stairway or ramp shall be permitted to be used as a circulation path.

1023.1 (IFC [B] 1023.1) General E*xit passageways* serving as an *exit* component in a *means of egress system* shall comply with the requirements of this section. An *exit passageway* shall not be used for any purpose other than as a means of egress ~~and a circulation path~~.

Exception: An interior exit passageway shall be permitted to be used as a circulation path.

Reasoning: Although the code text, as currently written, does not specifically prohibit interior exit stairways, ramps and exit passageways from being used as a circulation path or as a path of entry into a building, it could be interpreted that way. Interior exit stairways, ramps and passageways are commonly used by building occupants to access other floors or areas on the same floor for convenience purposes.

According to official IBC Interpretation 27-08 ~~(see attached copy)~~ issued on March 6, 2009 by ICC staff "An exit passageway provides a protected path of egress travel in a horizontal direction to the exit discharge or the public way. While this provision states that the exit passageway shall not be used for any purpose other than as a means of egress, similar to an exit enclosure, the intent is to limit openings to those necessary for exit access to the exit passageway from normally occupied spaces and for egress from the exit passageway in addition to prohibiting the exit passageway from being used for storage or the placement of furniture, vending machines, etc., because these situations may obstruct the path of exit travel and, if the materials are combustible, create a life safety hazard. The code does not specifically prohibit the exit passageway from also being used as a path of entry into a building."

The proposed exception to Section 1022.1 for interior exit stairways and ramps and to Section 1023.1 for exit passageways will add clarity on this issue and will not diminish life safety for the means of egress. Note: the term "Circulation path" is defined in IBC Chapter 2.

Cost Impact: None

E138-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.1-E-KRANZ

IBC – STRUCTURAL

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Add EB43-12 to the IBC Structural Hearing Order following EB42-12
Add S70-12, Parts I through III to the IBC Structural Hearing Order following S69-12
Add S90-12, Parts I through IV to the IBC Structural Hearing Order following S89-12
Add FS165-12 on the IBC Structural Hearing Order following FS146-12
Add S103-12, Parts I through III to the IBC Structural Hearing Order following S102-12
Add G8-12, Parts I through III to the IBC Structural Hearing order followingS104-12
Remove P3-12 from the IBC Structural Hearing Order following G8-12, Part IV (This is a duplicate of G8-2, Part I)
Remove P228-12 from the IBC Structural Hearing Order following P3-12 (This is a duplicate of G8-2, Part IV)
Remove M31-12 from the IBC Structural Hearing Order following P228-12 (This is a duplicate of G8-2, Part II)
Add S113-12, Parts I and II to the IBC Structural Hearing Order following G10-12
Add S117-12, Parts I through III to the IBC Structural Hearing Order following S116-12
Add S340-12 to the IBC Structural Hearing Order following S207-12
Remove G7-12 from the IBC Structural Hearing Order following G3-12 (See the IMC Hearing Order)
Add S304-12, Parts I and II to the IBC Structural Hearing Order following S303-12
Add S313-12, Parts I through III to the IBC Structural Hearing Order following S317-12

TENTATIVE ORDER OF DISCUSSION

2012 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE

STRUCTURAL

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation **does not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some IBC-S code change proposals may not be included on this list, as they are being heard by other committees. Please consult the Cross Index of Proposed Changes.

IEBC
EB15-12
EB16-12
EB17-12
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2012 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE – STRUCTURAL

Updated 4/6/2012

EB43–12
[B] 1007.3.1

Proponent: David Bonowitz, representing self (dbonowitz@att.net)

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

Revise as follows:

1007.3.1 Compliance with the *International Building Code* level seismic forces. Where a building or portion thereof is subject to a *change of occupancy* that results in the building being assigned to a higher risk category based on Table 1604.5 of the *International Building Code*~~; or where such *change of occupancy* results in a reclassification of a building to a higher hazard category as shown in Table 1012.4; or where a change of a Group M occupancy to a Group A, E, I-1, R-1, R-2 or R-4 occupancy with two-thirds or more of the floors involved in Level 3 *alteration* work~~, the building shall comply with the requirements for *International Building Code* level seismic forces as specified in Section 301.1.4.1 for the new risk category.

Exceptions:

1. ~~Group M occupancies being changed to Group A, E, I-1, R-1, R-2 or R-4 occupancies for buildings less than six stories in height and in Seismic Design Category A, B or C.~~
2. Where approved by the *code official*, specific detailing provisions required for a new structure are not required to be met where it can be shown that an equivalent level of performance and seismic safety is obtained for the applicable risk category based on the provision for reduced *International Building Code* level seismic forces as specified in Section 301.1.4.2.
3. Where the area of the new occupancy with a higher hazard category is less than or equal to 10 percent of the total building floor area and the new occupancy is not classified as Risk Category IV. For the purposes of this exception, buildings occupied by two or more occupancies not included in the same Risk category, shall be subject to the provisions of Section 1604.5.1 of the *International Building Code*. The cumulative effect of the area of occupancy changes shall be considered for the purposes of this exception.
4. Unreinforced masonry bearing wall buildings in Risk Category III when assigned to Seismic Design Category A or B shall be allowed to be strengthened to meet the requirements of Appendix Chapter A1 of this code [Guidelines for the Seismic Retrofit of Existing Buildings (GSREB)].

Reason: This proposal limits the seismic upgrades triggered by change of occupancy projects to cases where the change involves an increase in risk category. This aligns the IEBC more closely with the long-standing trigger in IBC Section 3408.

Fundamentally, seismic upgrade regulations should be based on considerations of seismic risk, not on details of occupancy, use, or egress issues. To the extent that the occupancy or occupant load is relevant to seismic risk, those issues are already incorporated into the assignment of risk category, which considers the presence of hazardous materials, post-earthquake response and recovery needs, specific occupancy groups such as I-2 and I-3, and the number of occupants.

More specifically, the current provision and Exception 1 lead to a number of illogical and inconsistent conclusions. The specific provisions related to Group M are especially confounding. Under the current provision, all of the following are true:

- In SDC C, a 5-story building changing all 5 floors from mercantile (M) to apartments (R-2) is subject to seismic upgrade, but a 10-story building with 6 floors changing from M to R-2 is exempt.
- In SDC D, a building changing from office (B) to mercantile (M) with very little alteration is subject to seismic upgrade, but a similar building changing from apartments (R-2) to a hotel (R-1) with extensive room reconfiguration and increase in occupant load is exempt.
- A 5-story 30-year old building changing from office (B) to mercantile (M) in SDC D is subject to upgrade, but a 5-story 80-year old building changing from M to an elementary school (E) or assisted living facility (I-1) in SDC C is exempt.

This hair-splitting – the requirements vary by occupancy, "hazard category," seismicity, height, and extent of alteration – is not supportable by observations of past performance (let alone by common sense). The proposal eliminates these faulty provisions.

While I believe the proposal is best as written above, a compromise position would delete Exception 1 and the main provision's phrase about Group M, but would retain the phrase about reclassification to a higher hazard category.

Cost Impact: None

EB43-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

Updated 3/30/2012

S65-12: Code change will be heard by the IBC General Committee:

S65–12
1511.1.1

Proponent: Maureen Traxler, City of Seattle Department of Planning & Development (Maureen.traxler@seattle.gov); Thomas Meyers, City of Central, CO, representing self

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

(Portions of code change not shown remain unchanged)

Updated 3/30/2012 and 4/16/2012
NP

S70-12: All 3 parts will be heard by the IBC Structural Committee also see highlighted revision to Part III:

S70–12
703.2.3, [F]909.9, 1603.1.4, 1607.10.1.2, 1607.10.2, 1704.3.1, 1704.5 (NEW), 1704.5.1, 1704.5.2, Table 1705.3, Table 1705.7, 1705.9, 1705.12.3, 1803.4, 1910.9.3, 2207.2, 2207.3, 2303.4.1.4.1

Proponent: Phillip Brazil, P.E., S.E., Reid Middleton, representing Washington Association of Building Officials, Technical Code Development Committee (pbrazil@reidmiddleton.com)

THIS IS A THREE PART CODE CHANGE. ALL THREE PARTS WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THIS COMMITTEE.

PART II – IBC FIRE SAFETY

Revise as follows:

PART III - IFC

[F] 909.9 Design fire. The design fire shall be based on a rational analysis performed by the responsible *registered design professional* and *approved* by the fire code official. The design fire shall be based on the analysis in accordance with Section 909.4 and this section.

(Portions of code change not shown remain unchanged)

S113-12: Both parts will be heard by the IBC Structural Committee. See highlighted revisions to Table 1705.3, Table 1705.6 and Table 1705.8:

S113–12

1703.1.3, 1703.5.2, 1703.6, 1703.6.2, 1704.1, 1704.2, 1704.2.1, 1704.2.2, 1704.2.4, 1704.3, 1704.3.1, 1704.3.2, 1705.1, 1705.1.1, Table 1705.2.2, 1705.3, Table 1705.3, 1705.3.1, 1705.4, 1705.4.1, 1705.4.2, 1705.6, Table 1705.6, 1705.7, Table 1705.7, 1705.8, Table 1705.8, 1705.9, 1705.11.1, 1705.13, 1705.13.1, 1705.13.2, 1705.14, 1901.4, [F] 909.18.8, [F] 909.18.8.1, [F] 909.21.7[F] 1705.17, [F] 1705.17.1

Proponent: Phillip Brazil, P.E., S.E., Reid Middleton, Inc., representing Washington Association of Building Officials, Technical Code Development Committee (pbrazil@reidmiddleton.com)

THIS IS A TWO PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THIS COMMITTEE.

TABLE 1705.3
REQUIRED ~~VERIFICATION AND~~ SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

~~VERIFICATION AND INSPECTION~~ TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD[a]	IBC REFERENCE

(Portions of table not shown remain unchanged)

TABLE 1705.6
REQUIRED ~~VERIFICATION AND~~ SPECIAL INSPECTIONS AND TESTS OF SOILS

~~VERIFICATION AND INSPECTION TASK~~ TYPE	CONTINUOUS ~~DURING TASK LISTED~~ SPECIAL INSPECTION	~~PERIODICALLY DURING TASK LISTED SPECIAL INSPECTION~~ PERIODIC SPECIAL INSPECTION

(Portions of table not shown remain unchanged)

TABLE 1705.8
REQUIRED ~~VERIFICATION AND~~ SPECIAL INSPECTIONS AND TESTS OF CAST-IN-PLACE DEEP FOUNDATION ELEMENTS

~~VERIFICATION AND INSPECTION TASK~~ TYPE	CONTINUOUS ~~DURING TASK LISTED~~ SPECIAL INSPECTION	~~PERIODICALLY DURING TASK LISTED~~ PERIODIC SPECIAL INSPECTION
3. For concrete elements, perform tests and additional special inspections in accordance with Section 1705.3.	—	—

(Portions of table not shown remain unchanged)

(Portions of code change not shown remain unchanged)

S117-12: All 3 parts will be heard by the IBC Structural Committee:

S117–12
202, 1703.4, 1704.2.5.2, 1705.16.1, 1705.16.2, [F]909.18.8.2, [F]909.18.8.3, [F]1705.17.2

Proponent: Phillip Brazil P.E., S.E., Reid Middleton, Inc., representing Washington Association of Building Officials, Technical Code Development Committee (pbrazil@reidmiddleton.com)

THIS IS A THREE PART CODE CHANGE. ALL THREE PARTS WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THIS COMMITTEE.

(Portions of code change not shown remain unchanged)

Updated 4/16/2012
NP

S123-12: See highlighted revisions:

S123–12
1704.2.5, 1704.2.5.1, 1704.2.5.2, 1705.10 (NEW)

Proponent: Philip Brazil, P.E., S.E., Reid Middleton, Inc., representing self (pbrazil@reidmiddleton.com)

Revise as follows:

1704.2.5 Special inspection of ~~fabricators~~ fabricated items. Where fabrication of structural load-bearing members and assemblies is being ~~performed~~ conducted on the premises of a fabricator's shop, *special inspections* of the fabricated items shall be ~~required by this section and as required elsewhere in this code~~ performed during fabrication.

Exceptions:

1. ~~**1704.2.5.1 Fabrication and implementation procedures.**~~ *Special inspections* during fabrication are not required where the special inspector ~~shall verify~~ verifies that the fabricator maintains detailed fabrication and quality control procedures that provide a basis for inspection control of the workmanship and the fabricator's ability to conform to *approved construction documents* and referenced standards. The special inspector shall review the procedures for completeness and adequacy relative to the code requirements for the fabricator's scope of work.

(Portions of code change not shown remain unchanged)

S174-12: See highlighted revision:

S174–12
1710.5.1, 1710.5.2

Proponent: Julie Ruth, P.E., JRuth Code Consulting, representing American Architectural Manufacturers Association (AAMA) (julruth@aol.com)

Revise as follows:

1710.5.1 Exterior windows and doors. Exterior windows and ~~sliding~~ doors shall be tested and labeled as conforming to AAMA/WDMA/CSA101/I.S.2/A440. The *label* shall state the name of the manufacturer, the *approved* labeling agency and the product designation as specified in AAMA/ DMA/CSA101/I.S.2/A440. ~~Exterior side-hinged doors shall be tested and *labeled* as conforming to AAMA/WDMA/CSA101/I.S.2/A440 or comply with Section 1710.5.2.~~ Products tested and labeled as conforming to AAMA/WDMA/CSA 101/I.S.2/A440 shall not be subject to the requirements of Sections 2403.2 and 2403.3.

1710.5.2 Exterior windows and door assemblies not provided for in Section 1710.5.1. Exterior window and door assemblies shall be tested in accordance with ASTM E 330 except that the structural performance of garage doors and rolling doors shall be determined in accordance with either ASTM E 330 or ANSI/DASMA 108, and shall meet the acceptance criteria of ANSI/DASMA 108. Exterior window and door assemblies containing glass shall comply with Section 2403. The design pressure for testing shall be calculated in accordance with Chapter 16. Each assembly shall be tested for 10 seconds at a load equal to 1.5 times the design pressure.

Reason: At the present time exterior windows and sliding doors are required to be tested and labeled in accordance with AAMA/WDMA/CSA 101/I.S.2/A440. While this specification does require the fenestration product to be tested for resistance to structural load in accordance with ASTM E330, it also requires a number of other tests to be performed. These include resistance to air leakage and water penetration. Other tests such as forced entry resistance may be required depending upon the operator type of the product.

The integrity of the building envelope is dependent upon the performance of the fenestration in the envelope. This is as true for swinging doors as it is for sliding doors and windows. Previous attempts to extend the AAMA/WDMA/CSA 101/I.S.2/A440 labeling requirement to swinging doors were met with resistance. But to date, no acceptable alternative method of determining adequate performance of these products has been provided.

Products that are labeled in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 are now available on the marketplace. Its time to tighten up this important component of the building envelope and require swinging doors to provide the same level of protection to the interior of the building that other components of the building envelope are required to provide.

Cost Impact: There will be no cost increase for products that are already being tested in compliance with Section 1710.5, as required by the IBC.

S174-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1710.5.1 #1-S-RUTH.doc

S176-12: See highlighted revision:

S176–12
202, 1710.6, 2404.2, 2405.5, 2405.5.1, 2405.5.2

Proponent: Julie Ruth, P.E., JRuth Code Consulting, representing American Architectural Manufacturers Association (AAMA) (julruth@aol.com)

Revise as follows:

2405.5 Unit skylights and tubular daylighting devices. Unit skylights and tubular daylighting devices shall be tested and labeled as complying with AAMA/WDMA/CSA 101/I.S./A440. The *label* shall state the name of the manufacturer, the *approved* labeling agency, the product designation and the performance grade rating as specified in AAMA/WDMA/CSA 101/I.S.2/A440. If the product manufacturer has chosen to have the performance grade of the skylight rated separately for positive and negative design pressure, then the *label* shall state both performance grade ratings as specified in AAMA/ WDMA/CSA 101/I.S.2/A440 and the skylight shall comply with Section 2405.5.2. If the skylight is not rated separately for positive and negative pressure, then the performance grade rating shown on the *label* shall be the performance grade rating determined in accordance with AAMA/WDMA/ CSA 101/I.S.2/A440 for both positive and negative design pressure and the skylight shall conform to Section 2405.5.1.

(Portions of code change not shown remain unchanged)

S240-12: See highlighted revisions:

S240–12
1604.3.3, 2203.2, 2207.1, 2207.1.1 (NEW), 2207.2, 2207.3, 2207.4, 2207.5,

Proponent: Bonnie Manley, P.E., American Iron and Steel Institute, representing Steel Joist Institute (bmanley@steel.org)

Revise as follows:

1604.3.3 Steel. The deflection of steel structural members shall not exceed that permitted by AISC 360, AISI S100, ASCE 8, SJI CJ~~-1.0~~, SJI JG~~-1.1~~, SJI K~~-1.1~~ or SJI LH/ DLH~~-1.1~~, as applicable.

2203.2 Protection. Painting of structural steel members shall comply with the requirements contained in AISC 360. Painting of open-web steel joists and joist girders shall comply with the requirements of SJI CJ~~-1.0~~, SJI JG~~-1.1~~, SJI K~~-1.1~~ and SJI LH/DLH~~-1.1~~. Individual structural members and assembled panels of cold-formed steel construction shall be protected against corrosion in accordance with the requirements contained in AISI S100. Protection of cold-formed steel light-frame construction shall also comply with the requirements contained in AISI S200.

2207.1 General. The design, manufacture and use of open web steel joists and joist girders shall be in accordance with one of the following Steel Joist Institute (SJI) specifications:

1. SJI-CJ~~-1.0~~
2. SJI-K~~-1.1~~
3. SJI-LH/DLH~~-1.1~~
4. SJI-JG~~-1.1~~

2207.1.1 Seismic design. Where required, the seismic design of buildings shall be in accordance with the additional provisions of Section 2205.2 or 2211.6.

2207.2 Design. The *registered design professional* shall indicate on the *construction documents* the steel joist and/or steel joist girder designations from the specifications listed in Section 2207.1 and shall indicate the requirements for joist and joist girder design, layout, end supports, anchorage~~, non-SJI standard~~ bridging, bridging termination connections and bearing connection design to resist uplift and lateral loads. These documents shall indicate special requirements as follows:

1. Special loads including:
   1.1. Concentrated loads;
   1.2. Nonuniform loads;
   1.3. Net uplift loads;
   1.4. Axial loads;
   1.5. End moments; and
   1.6. Connection forces.
2. Special considerations including:
   2.1. Profiles for ~~nonstandard~~ joist and joist girder configurations ~~(standard joist and joist girder are as indicated in the SJI catalog)~~ that differ from those defined by the SJI specifications listed in Section 2207.1;
   2.2. Oversized or other nonstandard web openings; and
   2.3. Extended ends.
3. Live and total load deflection criteria ~~for live and total loads~~ for ~~non-SJI standard~~ joists and joist girder configurations that differ from those defined by the SJI specifications listed in Section 2207.1.

2207.3 Calculations. The steel joist and joist girder manufacturer shall design the steel joists and/or steel joist girders in accordance with the ~~current~~ SJI specifications ~~and load tables~~ listed in Section 2207.1 to support the load requirements of Section 2207.2. The *registered design professional* ~~may~~ shall be permitted to require submission of the steel joist and joist girder calculations as prepared by a *registered design professional* responsible for the product design. If requested by the *registered design professional*, the steel joist manufacturer shall submit design calculations with a cover letter bearing the seal and signature of the joist manufacturer's *registered design professional*. In addition

to ~~standard~~ the design calculations submitted under ~~this~~ seal and signature, ~~submittal of~~ the following shall be included:

1. ~~Non-SJI standard~~ Bridging ~~details~~ design that differs from the SJI specifications listed in Section 2207.1 (e.g.for cantilevered conditions, net uplift, etc.).
2. Connection ~~details~~ design for:
   2.1. ~~Non-SJI standar~~ Connections that differ from the SJI specifications listed in Section 2207.1 (e.g.flushframed or framed connections);
   2.2. Field splices; and
   2.3. Joist headers.

2207.4 Steel joist drawings. Steel joist placement plans shall be provided to show the steel joist products as specified on the *construction documents* and are to be utilized for field installation in accordance with specific project requirements as stated in Section 2207.2. Steel joist placement plans shall include, at a minimum, the following:

1. Listing of all applicable loads as stated in Section 2207.2 and used in the design of the steel joists and joist girders as specified in the *construction documents*.
2. Profiles for ~~nonstandard~~ joist and joist girder configurations ~~(standard joist and joist girder configurations are as indicated in the SJI catalog)~~ that differ from those defined by the SJI specifications listed in Section 2207.1.
3. Connection requirements for:
   3.1. Joist supports;
   3.2. Joist girder supports;
   3.3. Field splices; and
   3.4. Bridging attachments.
4. Live and total load deflection criteria ~~for live and total loads~~ for ~~non-SJI standard~~ joists and joist girder configurations that differ from those defined by the SJI specifications listed in Section 2207.1.
5. Size, location and connections for all bridging.
6. Joist headers.

Steel joist placement plans do not require the seal and signature of the joist manufacturer's *registered design professional*.

2207.5 Certification. At completion of manufacture, the steel joist manufacturer shall submit a *certificate of compliance* in accordance with Section 1704.2.5.2 stating that work was performed in accordance with *approved construction documents* and with SJI ~~standard~~ specifications listed in Section 2207.1.

Reason: This code change is primarily editorial in nature with the intent to clarify and streamline the requirements for steel joists. Major changes include the following:

- Correction of short titles in Section 2207.1, 1604.3.3 and 2203.2 to reflect the appropriate short title listing in Chapter 35 and correction of SJI address in Chapter 35.
- Deletion of reference to the SJI catalog – it is not an adopted reference.
- Deletion of reference to the load tables; they are now incorporated into the relevant SJI specifications.
- Elimination of the vague terms "nonstandard", "non SJI standard", and "standard" used throughout the section. These terms are not defined. To clarify what is intended, a reference to the requirements found in the SJI specifications listed in Section 2207.1 is substituted.

Addition of "joist girders" to Section 2207.2, Item 3 and Section 2207.4, Item 4 for consistency.

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

S240-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

S304-12: Both parts will be heard by the IBC Structural Committee:

S304–12
[A]110.3.5, 202, 2501.1.1, 2502.1, 2503.1, 2504, 2505, 2506 and 2508

Proponent: Michael Gardner, Gypsum Association (mgardner@gypsum.org)

THIS IS A TWO PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THIS COMMITTEE.

(Portions of code change not shown remain unchanged)

S340-12: Add code change as follows:

S340–12
1905.1.9, 1905.1.10

Proponent: S. K. Ghosh, Ph.D., S. K., representing S. K. Ghosh Associates Inc.

Revise as follows:

1905.1.9 ACI 318, Section D.3.3. ~~Delete ACI 318 Sections D.3.3.4 through D.3.3.7 and replace with the following:~~

Modify ACI 318 Sections D.3.3.4.2 and D.3.3.5.2 to read as follows:

~~*D.3.3.4 - The anchor design strength associated with concrete failure modes shall be taken as 0.75ϕNn and 0.75ϕVn, where ϕ is given in D4.3 or D4.4 and Nn and Vn are deteremined in accordance with D5.2, D5.3, D5.4, D6.2 and D6.3, assuming the concrete is cracked unless it can be demonstrated that the concrete remains uncracked.*~~

~~*D.3.3.5 - Anchors shall be designed to be governed by the steel strength of a ductile steel element as determined in accordance with D.5.1 and D.6.1, unless either D.3.3.6 or D.3.3.7 is satisfied.*~~

D.3.3.4.2 - Where the tensile component of the strength-level earthquake force applied to anchors exceeds 20 percent of the total factored anchor tensile force associate with the same load combination, anchors and their attachments shall be designed in accordance with D.3.3.4.3. The anchor design tensile strength shall be determined in accordance with D.3.3.4.4

Exceptions:

1. *Anchors designed to resist wall out-of-plane forces with design strengths equal to or greater than the force determined in accordance with ASCE 7 Equation 12.11-1 or 12.14-10 need not satisfy Section ~~D.3.3.5~~ D.3.3.4.3.*
2. *Anchors in concrete designed to support nonstructural components in accordance with ASCE 7 Section 13.4.2 need not satisfy Section D.3.3.4.3.*

D.3.3.5.2 – Where the shear component of the strength-level earthquake force applied to anchors exceeds 20 percent of the total factored anchor shear force associated with the same load combination, anchors and their attachmeents shall be designed in accordance with D.3.3.5.3. The anchor design shear strength for resisting earthquake forces shall be determined in accordance with D.6.

Exceptions:

~~2~~1. *D.3.3.5.3 need not apply and the design shear strength in accordance with D.6.2.1(c) need not be computed for anchor bolts attaching wood sill plates of bearing or non-bearing walls of light-frame wood structures to foundations or foundation stem walls provided all of the following are satisfied:*

~~1~~1.1. *The allowable in-plane shear strength of the anchor is determined in accordance with AF&PA NDS Table 11E for lateral design values parallel to grain.*

~~2.2~~ 1.2. *The maximum anchor nominal diameter is $^5/_8$ inches (16 mm).*

~~2.3~~ 1.3. *Anchor bolts are embedded into concrete a minimum of 7 inches (178 mm).*

~~2.4~~ 1.4. *Anchor bolts are located a minimum of $1^3/_4$ inches (45 mm) from the edge of the concrete parallel to the length of the wood sill plate.*

~~2.5~~ 1.5. *Anchor bolts are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the wood sill plate.*

~~2.6~~ 1.6. *The sill plate is 2-inch or 3-inch nominal thickness.*

~~3~~ 2. *Section D.3.3.5.3 need not apply and the design shear strength in accordance with Section D.6.2.1(c) need not be computed for anchor bolts attaching cold-formed steel track of bearing or non-bearing walls of light-frame construction to foundations or foundation stem walls provided all of the following are satisfied:*

~~3.1~~ 2.1. *The maximum anchor nominal diameter is $^5/_8$ inches (16 mm).*

~~3.2~~ 2.2. *Anchors are embedded into concrete a minimum of 7 inches (178 mm).*

~~3.3~~ 2.3. *Anchors are located a minimum of $1^3/_4$ inches (45 mm) from the edge of the concrete parallel to the length of the track.*

~~3.4~~ 2.4. *Anchors are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the track.*

~~3.5~~ 2.5. *The track is 33 to 68 mil designation thickness.*

Allowable in-plane shear strength of exempt anchors, parallel to the edge of concrete shall be permitted to be determined in accordance with AISI S100 Section E3.3.1.

~~*4. In light-frame construction, design of anchors in concrete shall be permitted to satisfy D.3.3.8.*~~

~~*D.3.3.6 Instead of D.3.3.5, the attachment that the anchor is connecting to the structure shall be designed so that the attachment will undergo ductile yielding at a force level corresponding to anchor forces no greater than the design strength of anchors specified in D.3.3.4.*~~

~~***Exceptions:***~~

~~1~~ 3. *Anchors in concrete designed to support nonstructural components in accordance with ASCE 7 Section 13.4.2 need not satisfy Section ~~D.3.3.6~~ D.3.3.5.3.*

~~*2. Anchors designed to resist wall out-of-plane forces with design strengths equal to or greater than the force determined in accordance with ASCE 7 Equation 12.11-1 or 12.14-10 need not satisfy Section D.3.3.6.*~~

~~*D.3.3.7 - As an alternative to D.3.3.5 and D.3.3.6, it shall be permitted to take the design strength of the anchors as 0.4 times the design strength determined in accordance with D.3.3.4.*~~

~~*D.3.3.8 –*~~ 4. *In light-frame construction, bearing or nonbearing walls, shear strength of concrete anchors less than or equal to 1 inch [25 mm] in diameter ~~of~~ connecting sill plate or track to foundation or foundation stem wall need not satisfy ~~D.3.3.7~~ D.3.3.5.3 when the design strength of the anchors is determined in accordance with D.6.2.1(c).*

1905.1.10 ACI 318, Section D.4.2.2. Delete ACI 318, Section D.4.2.2, and replace with the following:

~~*D.4.2.2 The concrete breakout strength requirements for anchors in tension shall be considered satisfied by the design procedure of D.5.2 provided Equation D-7 is not used for anchor embedments exceeding 25 inches. The concrete breakout strength requirements for anchors in shear with diameters not exceeding 2 inches shall be considered satisfied by the design procedure of D.6.2. For anchors in shear with diameters exceeding 2 inches, shear anchor reinforcement shall be provided in accordance with the procedures of D.6.2.9.*~~

D.4.2.2 — For anchors with diameters not exceeding 4 in., the concrete breakout strength requirements shall be considered satisfied by the design procedure of D.5.2 and D.6.2. *For anchors in shear with diameters exceeding 4 inches, shear anchor reinforcement shall be provided in accordance with the procedures of D.6.2.9.*

Reason: The proposed change revises Chapter 19 of the 2012 IBC so that it is consistent with ACI 318-11. Although 2012 IBC Chapter 35 references ACI 318-11, the text in 2012 IBC Chapter 19 erroneously reflects modifications to ACI 318-08. This code change is absolutely critical if the 2015 IBC continues to reference ACI 318-11.

Items 1 and 2 make Sections 1905.1.9 and 1905.1.10 consistent with Appendix D of ACI 318-11, which has undergone significant changes from Appendix D of ACI 318-08.

Cost Impact: The proposed change should have a positive impact on the cost of design by removing confusion resulting from the current inconsistency between 2012 IBC Chapter 19 and ACI 318-11, the standard referenced by that chapter.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1905.1.9-S-GHOSH

INTERNATIONAL FUEL GAS CODE

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Add FG3, Part I and II to the IFGC Hearing Order following FG2-12
Add FG40-12 to the IFGC Hearing Order following FG19-12
Add FG38-12, Part I and II to the IFGC Hearing Order following FG37-12

TENTATIVE ORDER OF DISCUSSION

2012 PROPOSED CHANGES TO THE INTERNATIONAL FUEL GAS CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation **does not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some IFGC code change proposals may not be included on this list, as they are being heard by other committees. Please consult the Cross Index of Proposed Changes.

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FG3-12, Part II
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FG7-12
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FG33-12
FG34-12
FG35-12
FG36-12
FG37-12
FG38-12, Part I
FG38-12, Part II
FG39-12

2012 PROPOSED CHANGES TO THE INTERNATIONAL FUEL GAS CODE

Updated 3/22/2012

FG35-12: See highlighted revisions.
Section 618.5 – Add Exception to Item 2.
Section 618.6 – Revisions made to items 1 through 4.
Reason statement – Change to Item 6

FG35-12
618.5, 618.6 (New)

Proponent: James Ranfone, American Gas Association (jranfon@aga.org)

Delete and substitute as follows:

~~**618.4 Prohibited sources.**~~ *(Portions of code change not shown remain unchanged)*

618.5 Outdoor air openings: Outdoor air openings for a forced-air heating system shall be located in accordance with all of the following:

1. Not less than 3 feet below an appliance vent outlet, a plumbing vent outlet, or exhaust fan discharge outlet, located within 10 feet (3048 mm).
2. Not less than 10 feet (3048 mm) above the surface of any adjoining sidewalk, street, alley or driveway.

   Exception. Openings located 25 ft (7620 mm) above such surfaces.

3. An approved distance from a storage location where the stored materials emit odors, fumes, hazardous or flammable vapors.

618.6 Indoor return air openings: Indoor return air openings for a forced-air heating system shall be in accordance with all of the following:

1. Shall be located in rooms or spaces where the supply air rate discharged back into the room or space is equal to or greater than the return air rate taken from the space.
2. ~~Where one central return is installed, the room or space volume shall be 25 percent or greater of the entire volume served by such system.~~ Adjoining rooms and spaces connected by a permanent opening having an area sized in accordance with Section 618.2 shall be considered as a single room or space.
2. Shall be located a minimum of 10 feet (3048 mm) from a cooking appliance or the firebox or draft hood of a natural draft vented fuel-burning appliance.
3. Return air shall not be taken from ~~Where located in~~ a closet, bathroom, toilet room, kitchen, garage, mechanical room, boiler room, furnace room or unconditioned attic. Return air is permitted to be taken from such spaces ~~shall be~~ where served by a dedicated force-air heating system and the supply air rate discharged back into the room or space is equal to or greater than the return air rate taken from the space.
4. Return air intake openings shall not be located in the following locations:
   4.1. Where stored materials emit odors, fumes, hazardous or flammable vapors
   4.2. A refrigeration machinery room as defined in the *International Mechanical Code*

Reason: The proposal seeks to clarify the provisions as follows:
1. Reorganize code requirements by outdoor and indoor air opening locations.
2. State provisions in a positive manner and minimize the use of exceptions.
3. Eliminate unenforceable language or language open to wide interpretation – for example “insanitary location”, “objectionable odors”
4. Simplify the requirements regarding indoor return air openings
5. Allow return air openings a wider variety of spaces where a dedicated forced-air system is installed. Currently coverage only permits kitchen installations.

6. Eliminate the 25 percent requirement that has not technical basis. The revised language requires the such spaces be supplied with an equal or greater air supply (new 618.6 #1).

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

FG35-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

618.5-FG-RANFONE

FG40-12: Add code change as follows:

FG40 – 12
407.2

Proponent: Dan Buuck, representing National Association of Home Builders (NAHB) (dbuuck@nahb.org)

407.2. Design and Installation. *Piping* shall be supported with ~~metal~~ pipe hooks, ~~metal~~ pipe straps, ~~metal~~ bands, ~~metal~~ brackets, ~~metal~~ hangers, or building structural components, suitable for the size of *piping*, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration. *Piping* shall be anchored to prevent undue strains on connected appliances and shall not be supported by other *piping*. Pipe hangers and supports shall conform to the requirements of MSS SP-58 and shall be spaced in accordance with Section 415. Supports, hangers and anchors shall be installed so as not to interfere with the free expansion and contraction of the *piping* between anchors. All parts of the supporting *equipment* shall be designed and installed so they will not be disengaged by movement of the supported *piping*.

Reason: This change from the 2006 International Fuel Gas Code (IFGC) is clearly proprietary in nature. To disallow any other material that is proven to meet the requirements for support is contrary to the spirit of the ICC family of codes (I-Codes). Section 105.2 specifically states that the code should be inclusive in nature as long as products and materials meet the qualities necessary to meet their intended purpose. Favoring one material over another without reason is unacceptable. The change to the 2009 IFGC is too restrictive and eliminates other support materials that have been used successfully for years.

The 2012 change will have a significant impact on several manufacturers that have established alternate materials for piping supports. If the structural properties of a material is tested and proven to meet the structural specifications for supporting the piping it should be accepted for use. Even the referenced standard, MSS SP-58, allows other materials to be used provided they comply with the allowable stress requirements in the standard—taking into consideration the effects of temperature on the strength of the material.

If the material requirements for this section are not removed, it allows this code to become exclusionary. In the past the I-Codes have railed from the exclusivity of other codes that limit the type of materials. Materials that have proven themselves acceptable over the years should not be eliminated to prosper one type of material.

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

FG40-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

407.2-FG-BUUCK

INTERNATIONAL MECHANICAL CODE

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Remove M14-12 from the IMC Hearing Order following M13-12 (See the IBC Means of Egress Hearing Order)
Add M15-12 to the IMC Hearing Order following M13-12
Remove M31-12 from the IMC Hearing Order following M30-12
Add M215-12 to the IMC Hearing Order following M30-12
Remove M35-12 from the IMC Hearing Order following M34-12 (See the IBC General Hearing Order)
Add M36-12, Part I and II to the IMC Hearing Order following M34-12
Add M37-12, Part I and II to the IMC Hearing Order following M36-12
Add M38-12, Part I and II to the IMC Hearing Order following M37-12
Add M39-12, Part I and II to the IMC Hearing Order following M38-12
Remove M88-12 from the IMC Hearing Order following M87-12 (See the IBC Fire Safety Hearing Order)
Remove M91-12 from the IMC Hearing Order following M90-12 (See the IBC Fire Safety Hearing Order)
Add M149-12 to the IMC Hearing Order following M148-12
Add M169, Part I and II to the IMC Hearing Order following M168-12

TENTATIVE ORDER OF DISCUSSION

2012 PROPOSED CHANGES TO THE INTERNATIONAL MECHANICAL CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation **does not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some IFGC code change proposals may not be included on this list, as they are being heard by other committees. Please consult the Cross Index of Proposed Changes.

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M215-12
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M212-12
M213-12
M214-12

Updated 3/22/2012

M215-12: Add code change as follows:

M215–12
307.3 (New) (IPC [M]314.3 New)

Proponent: Guy McMann MCP, Jefferson County Colorado, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO) (gmcmann@jeffco.us)

Add new text as follows:

307.3 (IPC [M] 314.3) Condensate pumps. Condensate pumps located in uninhabitable spaces, such as attics and crawl spaces, shall be connected to the appliance or equipment served such that when the pump fails, the appliance or equipment will be prevented from operating. Pumps shall be installed in accordance with the manufacturers' installation instructions.

Reason: Pumps that are not connected in this fashion will permit the appliances to keep operating, spilling waste water where ever the appliance is located. When this condition continues over time, it could result in damage to building components or other property. This overflow condition may result in mold issues among other things. Most pump manufacturers already have this feature incorporated into the pump but the code does not require it to be connected. Damage as a result of not connecting this feature could prove to be very costly. This is not as much of a concern when appliances are readily accessible to occupants where leakage may be noticed in a timely manner.

Cost Impact: None

M215-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

307.6 (NEW)-FG-MCMANN

INTERNATIONAL PLUMBING CODE

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Add P231-12 to the IPC Hearing Order following P230-12

TENTATIVE ORDER OF DISCUSSION

2012 PROPOSED CHANGES TO THE INTERNATIONAL PLUMBING CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation **does not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some IFGC code change proposals may not be included on this list, as they are being heard by other committees. Please consult the Cross Index of Proposed Changes.

P = *International Plumbing Code*
PSD = *International Private Sewage Disposal Code*

P118-12: NUMBER NOT USED
P151-12: NUMBER NOT USED

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2012 PROPOSED CHANGES TO THE INTERNATIONAL PLUMBING CODE

Updated 3/30/2012

P231-12: Add code change as follows:

P231–12
202

Proponent: Bob Gulick, representing Mazzetti Nash Lipsey Burch (bobg@mazzetti.com)

Revise as follows:

SECTION 202
GENERAL DEFINITIONS

TEMPERED WATER. Water having a temperature range between ~~85°F (29°C)~~ 70°F (21°C) and 110°F (43°C).

Add new text as follows:

422.11 Tempered water for hand washing. It is acceptable to serve sinks and lavatories used primarily for hand washing with a single pipe supply of tempered water at a temperature between 70°F (21°C) and 85°F (29°C).

Reason: To allow tempered water systems at lower than 85°F (29°C) for hand washing in health care facilities – see second code change proposal
To reduce exposure to infection by mitigating the propagation of Legionella with lower temperature; to reduce water consumption; to reduce energy consumption and greenhouse gas emissions; and to reduce first costs. A single reduced temperature hand washing tempered water system will reduce water consumption by eliminating "warm up" time. Energy will be saved, reducing green house gas emissions, via less tempered water use and lower standby losses at lower temperatures.

Cost Impact: No direct cost impact, but indirectly facilitates cost savings. The code change proposal will not increase the cost of construction. A single pipe low temperature tempered water system with point of use heating for higher temperatures will reduce piping and insulation, which will more than offset the cost of point of use heating.

Public Hearing:				
	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

422.11 (NEW)-P-GULICK

2012 ICC CODE DEVELOPMENT CYCLE
CROSS INDEX OF PROPOSED CODE CHANGES

Updated 3/22/2012

INTERNATIONAL PLUMBING CODE	
202 DESIGN FLOOD ELEVATION	~~P3 (HEARD BY IBC-S)~~ G8 Part I
401.3.2	G193 Part IV
Table 406.1	G193 Part IV
Table 604.1(2)	G193 Part IV
Table 802.7.2	G193 Part IV
Table 802.8	G193 Part IV

INTERNATIONAL PRIVATE SEWAGE DISPOSAL CODE	
202 DESIGN FLOOD ELEVATION	~~P228 (HEARD BY IBC-S)~~ G8 Part IV

(Portions of Cross Index not shown remain unchanged)