



## ICC BUILDING CODE ACTION COMMITTEE

### 2020/2021/2022 CYCLE MEETING #7 Virtual Meeting

#### MEETING PROPOSALS

**Date: Tuesday, Nov. 10, 2020 – 3:30-5:00 Eastern**

- BCAC OCC Item 8/FCAC WG 5.5 - Special amusement buildings
- BCAC OCC Item 9/FCAC WG 5.15 Accessory dwelling units
- BCAC OCC Item 5/FCAC WG 5.16 Temporary Use (Group A and Group B)
  - Bleachers in IBC Chapter 31
  - IBC Chapter 1 and 31 (Group B)
  - IEBC Chapter 1 and 10 (Group B)
  - Appendix P (Group A)
  - Appendix Q (Group A)
- BCAC ADM Item 15 – 2021 IFC text for temporary structures, reduce duplication.
- BCAC Egress Item 6/FCAC WG 1.3 – Corridor continuity
- BCAC Gen Item 2 & Egress 3/FCAC WG 1.4 – Occupiable roofs
  - Single exit occupied roof
  - Stand by power to elevators serving occupied roofs (3 proposals)
  - Guard height
  - Highrise – 2 options
  - COO (Group B)

---

---

## BCAC Occupancy Item 8 FCAC WG5.5

Special amusement buildings

### IBC

**[BG] SPECIAL AMUSEMENT AREA.** A special amusement area is any temporary or permanent building or portion thereof that is occupied for amusement, entertainment or educational purposes and is arranged in a manner that:

1. Makes the means of egress path not readily apparent due to visual or audio distractions.
2. Intentionally confounds identification of the means of egress path.
3. Otherwise makes the means of egress path not readily available because of the nature of the attraction or mode of conveyance through the building or structure.

**[BG] PUZZLE ROOM.** A puzzle room is a type of special amusement area in which occupants are encouraged to solve a challenge to escape from a room or series of rooms.

### SECTION 411

#### SPECIAL AMUSEMENT BUILDINGS

**411.1 General.** *Special amusement areas having an occupant load of 50 or more shall comply with the requirements for the appropriate Group A occupancy and Sections 411.1 through 411.7. Special*

amusement areas having an *occupant load* of less than 50 shall comply with the requirements for a Group B occupancy and Sections 411.1 through 411.7.

**Exceptions:**

1. *Special amusement* areas that are without walls or a roof and constructed to prevent the accumulation of smoke need not comply with this section.
2. Puzzle rooms provided with a means of egress that is unlocked, readily identifiable and always available need not comply with this section.

**411.2 Automatic sprinkler system.** *Buildings Areas* containing *special amusement areas* shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1. Where the *special amusement area* is temporary, the sprinkler water supply shall be of an *approved* temporary means.

**Exception:** Automatic sprinklers are not required where the total floor area of a temporary *special amusement area* is less than 1,000 square feet (93 m<sup>2</sup>) and the exit access travel distance from any point in the special amusement area to an exit is less than 50 feet (15 240 mm).

**411.3 Fire alarm system.** *Buildings Areas* containing special amusement areas shall be equipped with an automatic smoke detection system in accordance with 907.2.12.

**[F] 411.4 Emergency voice/alarm communications system.** An *emergency voice/alarm communications system* shall be provided in accordance with Sections 907.2.11.

**411.5 Puzzle room exiting.** Puzzle room exiting shall comply with one of the following:

1. Exiting in accordance with Chapter 10,
2. An alternative design approved by the building official.
3. Exit shall be open and readily available upon activation by the automatic fire alarm system, automatic sprinkler system, and a manual control at a constantly attended location.

**411.6 Exit marking.** Exit signs shall be installed at the required *exit* or *exit access doorways* serving special amusement areas in accordance with this section and Section 1013. *Approved* directional exit markings shall be provided. Where mirrors, mazes or other designs are utilized that disguise the path of egress travel such that they are not apparent, *approved* and *listed* low-level exit signs that comply with Section 1013.5, and directional path markings *listed* in accordance with UL 1994, shall be provided and located not more than 8 inches (203 mm) above the walking surface and on or near the path of egress travel. Such markings shall become visible in an emergency. The directional exit marking shall be activated by the automatic smoke detection system and the *automatic sprinkler system* in accordance with Section 907.2.12.

**411.6.1 Photoluminescent exit signs.** Where *photoluminescent exit* signs are installed, activating light source and viewing distance shall be in accordance with the listing and markings of the signs.

**411.7 Interior finish.** The *interior finish* in special amusement areas shall be Class A in accordance with Section 803.1.

**2021 IFC**

**SPECIAL AMUSEMENT BUILDING AREA.** A special amusement ~~building area~~ is any temporary or permanent building or portion thereof that is occupied for amusement, entertainment or educational purposes and ~~that contains a device or system that conveys passengers or provides a walkway along, around or over a course in any direction so arranged that the means of egress path is not readily apparent due to visual or audio distractions or is intentionally confounded or is not readily available because of the nature of the attraction or mode of conveyance through the building or structure. is arranged in a manner that:~~

1. Makes the means of egress path not readily apparent due to visual or audio distractions.
2. Intentionally confounds identification of the means of egress path.

3. Otherwise makes the means of egress path not readily available because of the nature of the attraction or mode of conveyance through the building or structure.

**907.2.12 Special amusement buildings.** An automatic smoke detection system shall be provided in *special amusement buildings* in accordance with Sections 907.2.11.1 through 907.2.11.3.

**907.2.12.1 Alarm.** Activation of any single smoke detector, the *automatic sprinkler system* or any other automatic fire detection device shall immediately activate an audible and visible alarm at the building at a constantly attended location from which emergency action can be initiated, including the capability of manual initiation of requirements in Section 907.2.11.2.

**907.2.12.2 System response.** The activation of two or more smoke detectors, a single smoke detector equipped with an alarm verification feature, the *automatic sprinkler system* or other *approved* fire detection device shall automatically do all of the following:

1. Cause illumination of the *means of egress* with light of not less than 1 footcandle (11 lux) at the walking surface level.
2. Stop any conflicting or confusing sounds and visual distractions.
3. Activate an *approved* directional *exit* marking that will become apparent in an emergency.
4. Activate a prerecorded message, audible throughout the *special amusement building*, instructing patrons to proceed to the nearest *exit*. Alarm signals used in conjunction with the prerecorded message shall produce a sound that is distinctive from other sounds used during normal operation.

**907.2.12.3 Emergency voice/alarm communication system.** An emergency voice/alarm communication system, which is allowed to serve as a public address system, shall be installed in accordance with Section 907.5.2.2 and be audible throughout the entire *special amusement building*.

**914.7 Special amusement areas.** Special amusement areas shall comply with Sections 914.7.1 and 914.7.2.

**914.7.1 Automatic sprinkler system.** Buildings containing special amusement areas shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1. Where the special amusement area is temporary, the sprinkler water supply shall be of an *approved* temporary means.

**Exception:** Automatic sprinklers are not required where the total floor area of a temporary special amusement area is less than 1,000 square feet (93 m<sup>2</sup>) and the *exit access* travel distance from any point in the special amusement area to an *exit* is less than 50 feet (15 240 mm).

**914.7.2 Automatic smoke detection.** Special amusement area shall be equipped with an automatic smoke detection system in accordance with Section 907.2.11.

**3103.3 Outdoor assembly event.** For the purposes of this chapter, an outdoor assembly event shall include a circus, carnival, tent show, theater, skating rink, dance hall or other place of assembly in or under which persons gather for any purpose.

**3103.3.1 Special amusement area.** Tents and other membrane structures erected as a special amusement area shall be equipped with an *automatic sprinkler system* in accordance with Section 914.7.1.

2021 IEBC

## SECTION 1002 SPECIAL USE AND OCCUPANCY

**1002.1 Compliance with the building code.** Where an *existing building* or part of an *existing building* undergoes a change of occupancy to one of the special use or occupancy categories as described in Chapter 4 in the *International Building Code*, the building shall comply with all of the requirements of Chapter 4 of the *International Building Code* applicable to the special use or occupancy:

**2021 Performance**

**[BG] A103.1.9.12 SP-12, Special amusement area.** A temporary, permanent or mobile area, building or structure that is occupied for amusement, entertainment or educational purposes and that

contains a device or system that conveys passengers or provides a walkway along, around or over a course, in any direction, so arranged that means of egress are not readily apparent because of visual or audible distractions, or are intentionally confounded, or are not readily available because of the nature of the attraction or the mode of conveyance through the building or structure. It shall be assumed that:

1. Occupants, visitors and employees are awake, alert, predominantly able to exit without the assistance of others and unfamiliar with the area, building or structure.
2. Risk of injury and risk to health assumed by occupants, visitors and employees during their use of the area, building or structure are predominantly involuntary and high.
3. Public expectations regarding the protection afforded those occupying, visiting or working in such an area, building, structure are high.

#### **A103.1.9.12 SP-12, Special amusement building**

These assumptions reflect nominal characteristics of persons in a special amusement occupancy and provide the basis for such estimations as time to recognize an alarm, time to begin to exit and time to find the way to a place of safety. These assumptions reflect the fact that the people in special amusement buildings have limited responsibility for their own safety and are relying on the employees, owners, managers and insurers of the space to provide an adequate level of safety. There is an expectation that spaces where large populations, some of whom may be disabled or impaired, are gathered will be afforded a high level of protection to avoid catastrophic losses (i.e., a large loss of life in a single space is generally perceived as being worse than the loss of one or two lives in multiple, smaller events).

**Reason:** The purpose of the change is primarily for coordination and correction. The IFC definition for the Special Amusement Area in proposal achieves consistency with the definition approved in G48-18. It also adds a second exception to 411.1 that clarifies that is the doors are not locked, Section 411 does not apply.

The final item is modifying the fire alarm and suppression requirement to the specific area rather than the entire building. This is consistent with Chapter 10 of the IEBC. A new structure would generally be protected throughout with a fire alarm and suppression system during construction.

**Cost Impact:** The code change proposal will increase the cost of construction. Many of these rooms may be classified currently as a B occupancy as they are not specifically called out in the code. As such, there are very little requirements for fire alarm or sprinkler systems. Depending on the size and configuration of the room(s), this provision would increase the cost of construction.

Note 11-10-2020: Move to FCAC meeting

---

---

## **FCAC WG 5.15/BCAC OCC Item 9 Accessory dwelling units BCAC Occupancy Item 9 Accessory Dwelling Units**

**Work Group** – Andrew Kollar, Allison Cook, Chris Jensen (UL), Yu-Ngok Lo, Andy Benson, Truong Huynh, Carl Wren (FCAC)

### **IBC**

#### **Chapter 2 DEFINITIONS Section 202 GENERAL DEFINITIONS**

**ACCESSORY DWELLING UNIT (ADU).** *A secondary unit on the same lot as a dwelling unit also providing complete, independent living facilities for one or more persons, including*

permanent provisions for living, sleeping, eating, cooking and sanitation. Units may be configured as either accessory suites attached to the primary Dwelling Unit or as a detached structure.

## **Chapter 4 SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE**

### **Section 420 GROUPS I-1, R-1, R-2, R-3 AND R-4**

#### **420.2 Separation walls.**

Walls separating *dwelling units* in the same building, walls separating a primary dwelling unit from an accessory dwelling unit, walls separating *sleeping units* in the same building and walls separating *dwelling, accessory dwelling or sleeping units* from other occupancies contiguous to them in the same building shall be constructed as *fire partitions* in accordance with Section 708.

#### **Exceptions:**

1. Where sleeping units include private bathrooms, wall between bedroom and the associated private bathrooms are not required to be constructed as fire partitions.
2. Where sleeping units are constructed as suites, walls between bedrooms within the sleeping unit and walls between the bedrooms and associated living spaces are not required to be constructed as fire partitions.
3. In Group R-3 and R-4 facilities, walls within the dwelling units or sleeping units are not required to be constructed as fire partitions.

#### **420.3 Horizontal separation.**

Floor assemblies *dwelling units* in the same buildings, inclusive of floor assemblies separating a primary dwelling unit from an accessory dwelling unit, floor assemblies separating *sleeping units* in the same building and floor assemblies separating *dwelling or sleeping units* from other occupancies contiguous to them in the same building shall be constructed as *horizontal assemblies* in accordance with Section 711.

**Exception:** In Group R-3 and R-4 facilities, floor assemblies within the dwelling units or sleeping units are not required to be constructed as horizontal assemblies.

## **Section 421 ACCESSORY DWELLING UNITS**

**421.1 General.** An accessory dwelling unit shall comply with Sections 421.1 through 421.10.

**421.1.1 Limitations.** Accessory dwelling units shall comply with all of the following:

1. An accessory dwelling unit shall not be less than ~~450~~ 190 square feet (14 m<sup>2</sup>) in area.
2. An accessory dwelling unit shall not be greater than 50 percent of the area of the primary dwelling unit.
3. An accessory dwelling unit shall not be greater than 1,200 square feet (111 m<sup>2</sup>) in area.

**421.2 Occupancies.** Accessory dwelling units shall be classified as part of a Group R-2 occupancy or a Group R-3 occupancy. Separation requirements found in Sections 420 and 508 shall apply to an accessory dwelling unit except where authorized in compliance with Section 421.

**421.2.1 Address.** After the building official inspects the building or structure and does not find violations of the provisions of this code or other laws that are enforced by the department of building safety, the building official shall issue a certificate of occupancy

for the *accessory dwelling unit* including items described in Section 111.2 with a separate address than that of the primary *dwelling unit*.

**421.3 Means of egress.** Except as modified by this section, the *means of egress* components for an *accessory dwelling unit* shall be designed in accordance with Chapter 10.

**421.3.1 Doors.** An *accessory dwelling unit* shall be provided with a separate entrance from the primary *dwelling unit* either from the exterior of the building or from a common hallway located within the building.

**421.4 Vertical openings.** Floor openings between floor levels within an *accessory dwelling unit* are permitted without enclosure.

**421.5 Fire protection.** The *accessory dwelling unit* shall be protected with the following:

1. An automatic sprinkler system where required by Section 903.2.8.
2. A monitored fire alarm system where required by Section 907.2.9 or Section 907.2.10.
3. A carbon monoxide detection system in compliance with Section 915.

**421.6 Structural.** Floors within an *accessory dwelling unit* shall be designed for the live loads in Table 1607.1, based on the function within the space.

**421.7 Accessibility.** Accessibility shall be designed in accordance with Chapter 11 for the function served.

**421.8 Ventilation.** The applicable *ventilation* requirements of Section 1202 shall apply to an *accessory dwelling unit*.

**421.9 Plumbing facilities.** An *accessory dwelling unit* shall be provided with minimum plumbing facilities required for a *dwelling unit* in accordance with Chapter 29.

**421.10 Utilities.** The utilities for an *accessory dwelling unit* shall comply with Section 421.10.1 through 421.10.4.

**421.10.1 Heating, ventilation and air-conditioning systems.** A primary *dwelling unit* and an *accessory dwelling unit* shall be provided with:

1. A separate heating system (and cooling system where provided).
2. Separate ducting for heating and cooling systems. Return air openings for heating, ventilation and air-conditioning shall not be taken from another *dwelling unit*.
3. Separate climate controls.

**421.10.2 Electrical systems.** A primary *dwelling unit* and an *accessory dwelling unit* shall be provided with both of the following:

1. Access to the service disconnect location serving the dwelling unit in which they reside.
2. Ready access to all overcurrent devices protecting the conductors supplying that occupancy.

**421.10.3 Gas piping.** A primary *dwelling unit* and an *accessory dwelling unit* shall be provided with access to shutoff valves serving the dwelling unit in which they reside.



421.10.4 Water service. A primary dwelling unit and an accessory dwelling unit may share a common potable water system provided that there are separate, accessible main shutoff valves allowing the water to be turned off on one-side without affecting the other.

## Chapter 7 FIRE AND SMOKE PROTECTION FEATURES

### Section 708 FIRE PARTITIONS

**708.3 Fire-resistance rating.** *Fire partitions shall have a fire-resistance rating of not less than 1 hour.*

#### Exceptions:

1. Corridor walls permitted to have a ½ hour *fire-resistance rating* by Table 1020.1.
2. *Dwelling unit, accessory dwelling units and sleeping unit* separations in buildings of Types IIB, IIIB and VB construction shall have *fire-resistance ratings* of not less than ½ hour in buildings equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

### Section 711 FLOOR AND ROOF ASSEMBLIES

**711.2. Horizontal assemblies.** *Horizontal assemblies shall comply with Sections 711.2.1 through 711.2.6*

...

**711.2.4 Fire-resistance rating.** *The fire-resistance rating of horizontal assemblies shall comply with Section 711.2.4.1 through 711.2.4.6 but shall not be less than that required by the building type of construction.*

...

#### **711.2.4.3 Dwelling units, accessory dwelling units and sleeping units.**

*Horizontal assemblies serving as dwelling, accessory dwelling or sleeping unit separations in accordance with Section 420.3 shall not be less than 1-hour fire-resistance rated construction.*

**Exception:** *Horizontal assemblies separating dwelling units, accessory dwelling units and sleeping units shall be not less not than ½ fire-resistance-rated construction in a building of Types IIB, IIIB and VB construction, where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.*

Reason: The IBC proposals address new construction where a primary dwelling unit has an ADU either attached or as second accessory structure on the same lot.

Is there a need for parallel provisions in the IEBC to address a garage conversion, interior conversion, an addition to an existing home or garage (accessory structure)?

- Alterations – Level 2 in Section 801.3 point new construction to the IBC with limited exceptions.
- Alterations – Level 3 point back to Chapter 8.
- Additions to either the existing house or accessory structure are directed back to the IBC per Section 1101.1 with limited exceptions described in Chapter 11.

Cost impact:

# IZC

## Chapter 2 DEFINITIONS Section 202 GENERAL DEFINITIONS

**ACCESSORY DWELLING UNIT (ADU).** A secondary unit on the same lot as a dwelling unit also providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation. Units may be configured as either accessory suites attached to the primary Dwelling Unit or as a detached structure.

**ACCESSORY LIVING QUARTERS (ALQ).** An accessory building used solely as the temporary dwelling of guests of the occupants of the premises; such dwelling having no *kitchen* facilities and not rented or otherwise used as a separate *sleeping unit*.

**[BG] DWELLING UNIT.** A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

**KITCHEN.** Any room or portion of a room within a building designed and intended to be used for the cooking or preparation of food.

**[BG] SLEEPING UNIT.** A room of space in which people sleep, which can also include permanent provisions for living, eating and either sanitation or *kitchen* facilities, but not both. Such rooms and spaces that are also part of a *dwelling unit* are not sleeping units.

## Chapter 5 RESIDENTIAL ZONES Section 501 RESIDENTIAL ZONES DEFINED

**501.1 Residential zone.** Allowable residential (R) zone uses shall be:

**Division 1.** The following uses are permitted in an R, Division 1 zone:

Single-family dwellings, publicly owned and operated parks, recreation centers, swimming pools and playgrounds, police and fire department stations, public and governmental services, public libraries, schools and colleges (excluding colleges or trade schools operated for profit), public parking lots, private garages, buildings accessory to the above permitted uses (including private garages, accessory dwelling units and accessory living quarters), and temporary buildings.

## Chapter 8 GENERAL PROVISIONS Section 801 OFF-STREET PARKING

Assembly	1 per 300 gross square feet
<u>Accessory dwelling unit (ADU)</u>	<u>1 per accessory dwelling unit</u>
Dwelling unit	2 per dwelling unit
Health club	1 per 100 gross square feet
Hotel/motel	1 per sleeping unit plus 1 per 500 square feet of common area
Industry	1 per 500 <b>gross</b> square feet
Medical office	1 per 200 gross square feet
Office	1 per 300 gross square feet
Restaurant	1 per 100 gross square feet
Retail	1 per 200 gross square feet
School	1 per 3.5 seats in assembly rooms plus



	1 per faculty member
Warehouse	1 per 500 gross square feet

**801.2.3 Location of on lot.** The parking spaces required by this code shall be provided on the same lot as the use or where the exclusive use of such is provided on another lot not more than 500 feet (152 m) radially from the subject lot within the same or less-restrictive zoning district.

**801.2.3.1 Accessory dwelling unit parking.** Vehicular access to the required parking space shall not be obstructed by the parking space for the occupants of the primary dwelling unit.

## Chapter 9 SPECIAL REGULATIONS

### Section 903 ACCESSORY DWELLING UNITS

**903.1 General.** Accessory dwelling units shall be permitted in residential zones.

**903.1.1 Approval.** Applications for an accessory dwelling unit are subject to the requirements for a conditional use permit as per Chapter 12 and shall meet the following criteria:

1. The applicant must demonstrate that the accessory dwelling unit complies with all development and design standards of this Section.
2. The applicant must demonstrate that the proposed new construction or modifications to existing construction comply with the applicable building and fire safety codes.

**903.1.2 Occupancy permit, control.** No occupancy of the accessory dwelling unit shall take place without an occupancy permit issued by the code official appointed by the authority having jurisdiction. The initial occupancy permit shall remain in force for a period of two (2) years from the date of issue, provided that there is continued ownership. Thereafter, succeeding permits may be issued by the code official for each succeeding two-year period, provided that the structure and use continue to comply with the relevant provisions of Section 903, the building and fire safety codes, and the conditional use special permit. Occupancy permits shall not be transferable upon new ownership or a change in occupancy.

### 903.2 Conditions.

1. One accessory dwelling unit is permitted per residentially zoned lot.
2. Accessory dwelling units shall be secondary in size and function to the principal dwelling unit and be consistent with that principal dwelling unit in appearance, design, colors and materials.
3. The owner of a property containing an accessory dwelling unit shall reside in either the principal dwelling unit or the accessory dwelling unit, as of the date of permit approval.
4. An accessory dwelling unit shall have a separate house number from the principal dwelling unit.
5. An accessory dwelling unit shall have an area of
  - 5.1. An accessory dwelling unit shall not be less than 450 190 square feet (14 m<sup>2</sup>) in area.
  - 5.2. An accessory dwelling unit shall not be greater than 50 percent of the area of the primary dwelling unit.
  - 5.3. An accessory dwelling unit shall not be greater than 1,200 square feet (111 m<sup>2</sup>) in area.
6. An accessory dwelling unit shall be provided with a separate entrance than that serving the primary dwelling unit.
7. An accessory dwelling unit shall have a maximum number of two bedrooms.
8. Off-street parking shall comply with Section 801.
9. The location of a detached accessory dwelling unit shall comply with Section 803.
10. An accessory dwelling unit shall be provided with adequate provisions for water supply and sewage disposal. Separate utility connections are not required.

Reason:

Cost Impact:

Note 11-10-2020: Move forward to IFC for discussion. 6-4

Need reason and cost impact for IBC and IZC. Work on proposal during 11-12-2020 work group call.

IBC proposal

421.1.1. efficiency dwelling unit is 190 sq.ft., so move up from 150 sq.ft. – this will match IPMC

May not need 421.7 for structural since this a residential loading

421.7 – accessibility reference is generic if you have 4 or more units in a structure

421.9 – add an exception for a laundry hookup. Add a footnote in IPC to reference that.

421.10.4 – remove accessible; and use access

In reason, explain access to utility panels in shared locations rather than separate supplies for dwelling

Look at definition of ‘ready access’ and remove where not appropriate for access to electrical and shut off

Look at interconnected smoke detection as an option for dwelling unit separation/interior doors with

closers – ask FCAC

Should the language be separate exits rather than separate entrances? Need independent egress.

IZC proposal

903.2 Item 5.1 efficiency dwelling unit is 190 sq.ft., so move up from 150 sq.ft. – this will match IPMC

903.2 Item 2 – too subjective; remove description

Explain the recertification in the reason statement in 903.1

Concerns were raised that this should not be in the IBC, rather in the IZC and IEBC where increased density is requested. If this was built new, it would be a duplex.

---

---

## BCAC OCC Item 5/FCAC WG 5.16 Temporary Use (Group A and Group B)

BCAC Occupancy Item 5 Temporary bleachers

Date: 11-5-2020

### Proposal 1 Group A

IBC

**[BG] SPECIAL EVENT STRUCTURE.** Any ground-supported structure, platform, stage, stage scaffolding or rigging, canopy, tower or similar structure supporting entertainment-related equipment or signage.

### SECTION 3103 TEMPORARY STRUCTURES

**3103.1 General.** The provisions of Sections 3103.1 through 3103.4 shall apply to structures erected for a period of less than 180 days. *Special event structures, tents*, umbrella structures and other membrane structures erected for a period of less than 180 days shall also comply with the *International Fire Code*. Those erected for a longer period of time shall comply with applicable sections of this code.

**3103.5 Bleachers.** Temporary bleachers, grandstands and folding and telescopic seating, that are not building elements, shall comply with ICC 300.

Reason: The ICC 300 includes provisions for relocated and temporary bleachers. This information should be included in the IBC Chapter 31 requirements, so it does not get missed for seasonal venues or items such as seating for parades. The IFC defines ‘temporary special event structure’ as items not addressed in IBC, so there is no need for a similar reference in IFC.

Cost impact: None. There is already a reference for ICC 300 in IBC Chapter 10, therefore, this is not a change in requirements.

Notes 11-10-2020: Comments during call agreed with concept. Final review during 11-12-2020 Occupancy work group call.

---

## BCAC OCC Item 5/FCAC WG 5.16 Temporary Use (Group A and Group B)

### Proposal 2 Group B

#### IBC

#### SECTION 108

#### TEMPORARY STRUCTURES ~~AND POWER~~

**[A] 108.1 General.** The *building official* is authorized to issue a *permit* for temporary structures. ~~and temporary uses.~~ Such *permits* shall be limited as to time of service, but shall not be permitted for more than 180 days. The *building official* is authorized to grant extensions for demonstrated cause.

The building official is authorized to allow temporary structures resulting from any local, state or nationally declared emergency without complying with all of the requirements of this code for the temporary structure provided the building official determines the temporary structure has addressed life, health and fire risk.

**[A] 108.2 Conformance.** Temporary structures ~~and uses~~ shall comply with the requirements in Section 3103. For requirements pertaining to temporary occupancy classification and use designations in existing buildings, refer to the International Existing Building Code.

~~**[A] 108.3 Temporary power.** The *building official* is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in NFPA 70.~~

**[A] 108.4 Termination of approval.** The *building official* is authorized to terminate such *permit* for a temporary structure ~~or use~~ and to order the temporary structure ~~or use~~ to be discontinued.

#### SECTION 3103

#### TEMPORARY STRUCTURES

**3103.1 General.** The provisions of Sections 3103.1 through 3103.4 shall apply to structures erected for a period of less than 180 days. Special event structures, tents, umbrella structures and other membrane structures erected for a period of less than 180 days shall also comply with

the *International Fire Code*. Those erected for a longer period of time shall comply with applicable sections of this code.

**3103.2 ~~3103.1.1~~** Conformance. Temporary structures ~~and uses~~ shall conform to the structural strength, fire safety, *means of egress*, accessibility, light, ventilation and sanitary requirements of this code as necessary to ensure public health, safety and general welfare.

**3103.3 ~~3103.1.2~~** Permit required. Temporary structures that cover an area greater than 120 square feet (11.16 m<sup>2</sup>), including connecting areas or spaces with a common *means of egress* or entrance that are used or intended to be used for the gathering together of 10 or more persons, shall not be erected, operated or maintained for any purpose without obtaining a *permit* from the *building official*.

**3103.4 ~~2~~** Construction documents. A *permit* application and *construction documents* shall be submitted for each installation of a temporary structure. The *construction documents* shall include a site plan indicating the location of the temporary structure and information delineating the *means of egress* and the *occupant load*.

**3103.5 ~~3~~** Location. Temporary structures shall be located in accordance with the requirements of Table 705.5 based on the *fire-resistance rating* of the *exterior walls* for the proposed type of construction.

**3103.6 ~~4~~** Means of egress. Temporary structures shall conform to the *means of egress* requirements of Chapter 10 and shall have an *exit access* travel distance of 100 feet (30 480 mm) or less.

**Reason:**

The IEBC, not the IBC, is the correct location for the provisions that will apply for a temporary use. If the building was not already existing, there would not be a temporary use, it would be the intended use. With that direction in mind, this proposal is eliminating the reference to temporary uses from both Section 108 and Section 3103 of the IBC. We have a separate proposal to include the temporary “use” provisions into the body of the IEBC.

In our initial research we noted that IBC Section 108.2 on conformance directs users of the code to Section 3103 for compliance. When reviewing IBC Section 3103 it is immediately clear that the section needed reworking as it currently has a focus on temporary structures instead of both temporary structures and temporary uses. The entire section would need to be renumbered and restructured to deal with the subjects of temporary structures separately from that of temporary uses. Because of that complexity, we determined the best option is to modify the IBC by removing the temporary “use” language and thoughts from the IBC while keeping the provisions associated with a temporary “structure” (THIS PROPOSAL). In this proposal we provided a pointer to the IEBC and instead of the reference to “use” we have gone with

“occupancy classification and use designations” to match up with the Chapter 3 and Section 302 of the IBC.

We also recognized that temporary structures are not always associated with the normally planned on events like fairs or outside bake sales, but is instead driven by an emergency situation. For that reason, we also included language to Section 108.1 to help assure that when a code official is dealing with a temporary structure or the installation of temporary power associated with an emergency like the Covid-19 pandemic or a hurricane, flood, tornado or wildfire that code official is given a lot more flexibility than when they are handling a non-emergent situation.

Also, to align with our successful change to IBC Section 112, we have proposed to delete the text and sections pertaining to temporary power. As you can see from the following our recently approved language in 112 negates the need for a temporary power paragraph in 108:

## **SECTION 112**

### **SERVICE UTILITIES**

#### **[A] 112.1 Connection of service utilities.**

A person shall not make connections from a utility, a source of energy, fuel, or power, or a water system or sewer system to any building or system that is regulated by this code for which a permit is required, until approved by the building official.

#### **[A] 112.2 Temporary connection.**

The building official shall have the authority to authorize the temporary connection of the building or system to the utility, the source of energy, fuel, or power, or the water system or sewer system for the purpose of testing systems or for use under a temporary approval.

#### **[A] 112.3 Authority to disconnect service utilities.**

The building official shall have the authority to authorize disconnection of utility service to the building, structure or system regulated by this code and the referenced codes and standards in case of emergency where necessary to eliminate an immediate hazard to life or property or where such utility connection has been made without the approval required by Section 112.1 or 112.2. The building official shall notify the serving utility, and wherever possible the owner or the owner’s authorized agent and occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner or the owner’s authorized agent or occupant of the building, structure or service system shall be notified in writing, as soon as practical thereafter.

**Cost Impact:** None or a reduction. We feel that the change will not add to the cost of construction because it is clarifying that which is already taking place relative to an emergent situation and could even reduce costs when considering that this code will only be focused on the structures and power while the IEBC will only focus on temporary uses.

Notes 11-10-2020: Comments during call agreed with concept. This is Group B, so we can finalize later.

---

---

## BCAC OCC Item 5/FCAC WG 5.16 Temporary Use (Group A and Group B)

### Proposal 3 – Group B

IEBC

#### SECTION 107

#### TEMPORARY ~~STRUCTURES AND~~ OCCUPANCY CLASSIFICATION AND USE DESIGNATIONS ~~USES~~

**[A] 107.1 General.** The *code official* is authorized to issue a permit for temporary occupancy classification and use designations ~~uses~~. Such permits shall be limited as to time of service but shall not be permitted for more than 180 days. The *code official* is authorized to grant extensions for demonstrated cause.

The code official is authorized to allow temporary occupancy classification and use designations resulting from any local, state or nationally declared emergency without complying with all of the requirements of this code for the temporary occupancy classification and use designations provided the code official determines the temporary occupancy classification and use designation has addressed life, health and fire risk.

**[A] 107.2 Conformance.** Temporary occupancy classification and use designations ~~uses~~ shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation and sanitary requirements of this code as necessary to ensure the public health, safety and general welfare. Temporary occupancy classification and use designations shall also comply with the requirements in Section 1012.

**107.3 Temporary structures.** Temporary structures shall comply with the International Building Code.

~~**[A] 107.3 Temporary power.** The *code official* is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in NFPA 70.~~

**[A] 107.4 Termination of approval.** The *code official* is authorized to terminate such permit for a temporary occupancy classification and use designations ~~use~~ and to order the same temporary use to be discontinued.



## Chapter 10 CHANGE OF OCCUPANCY

Add New Section

### **SECTION 1012** **TEMPORARY OCCUPANCY CLASSIFICATION AND USE DESIGNATIONS**

**1012.1 Conformance.** Temporary occupancy classification and use designations shall conform to the structural strength, fire safety, *means of egress*, accessibility, light, ventilation and sanitary requirements of this code as necessary to ensure public health, safety and general welfare.

**1012.2 Permit required.** Temporary occupancy classification and use designations intended to be used for the gathering together of 10 or more persons, shall not be operated or maintained for any purpose without obtaining a *permit* from the *code official*.

**1012.3 Construction documents.** A *permit* application and *construction documents* shall be submitted for each required permit for a temporary occupancy classification and use designation. The *construction documents* shall include a site plan indicating the location of the temporary occupancy classification and use designation area and information delineating the *means of egress* and the *occupant load* serving the temporary occupancy classification and use designation area.

#### **Reason:**

We feel that the IEBC, not the IBC, is the correct location for the provisions that will apply when dealing with a temporary “use” that is associated with the temporary “occupancy classification and use designation” phrase that is used in IBC Chapter 3 and differentiated from the word “use” when being used as a verb. If the building was not already existing with a known and approved occupancy classification and use designation, there would not be a temporary “use”, it would be the approved “use”. With that direction in mind, this proposal is focusing on modifying Section 107 and adding a new section 1012 to the IEBC that is in a similar format to that found in Section 3103 of the IBC. We have a separate proposal to remove the temporary “use” provisions from the IBC. The IBC proposal also includes a pointer to the IEBC for temporary “uses”. To help differentiate from the verb “use”, we replaced that word with the phrase “occupancy classification and use designation” where we felt appropriate. As noted earlier, that phrase is taken directly from Chapter 3 of the IBC.

In our initial research we noted that IEBC Section 107.2 on conformance did not provide any direction to corresponding code requirements and felt it best to add language pointing to a code section with requirements that would be mimicking the format found in IBC Section 3103. Accordingly, we created the pointers in 107.2 and the new IEBC Section 1012 having that

familiar formatting of the IBC. The new IEBC section includes subsections on “Conformance”, “Permit required” and “Construction documents” like those found in the IBC.

We also recognized that temporary uses are not always associated with the normally planned on events like haunted houses around Halloween or holding a wedding reception in a barn but is instead driven by emergency situations. For that reason, we also added language in Section 107.1 to help assure that when a code official is dealing with a temporary occupancy classification and use designation or the installation of temporary power associated with an emergency like the Covid-19 pandemic or a hurricane, flood, tornado or wildfire, that code official is given a lot more flexibility than when they are handling a non-emergent situation.

Also, to align with our successful change to IBC Section 111, we have proposed to delete the text and sections pertaining to temporary power. As you can see from the following, our recently approved language in Section 111 negates the need for a temporary power paragraph in 108:

## **SECTION 111**

### **SERVICE UTILITIES**

#### **[A] 111.1 Connection of service utilities.**

A person shall not make connections from a utility, source of energy, fuel, power, water system or sewer system to any building or system that is regulated by this code for which a permit is required, until approved by the code official.

#### **[A] 111.2 Temporary connection.**

The code official shall have the authority to authorize the temporary connection of the building or system to the utility, source of energy, fuel, power, water system or sewer system for the purpose of testing systems or for use under a temporary approval.

#### **[A] 111.3 Authority to disconnect service utilities.**

The code official shall have the authority to authorize disconnection of utility service to the building, structure or system regulated by this code and the referenced codes and standards in case of emergency where necessary to eliminate an immediate hazard to life or property or where such utility connection has been made without the approval required by Section 111.1 or 111.2. The code official shall notify the serving utility and, wherever possible, the owner or the owner’s authorized agent and the occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner, the owner’s authorized agent or occupant of the building, structure or service system shall be notified in writing, as soon as practical thereafter.

**Cost Impact:** None or a reduction. We feel that the change will not add to the cost of construction because it is clarifying that which is already taking place relative to an emergent situation and could even reduce costs when considering that this code will primarily be focused on the temporary uses while the IBC will primarily focus on temporary structures.

Notes 11-10-2020: Comments during call agreed with concept. This is Group B, so we can finalize later.

---

## BCAC OCC Item 5/FCAC WG 5.16 Temporary Use (Group A and Group B)

### Proposal 4 (Group A) IBC – This is a new appendix

#### APPENDIX P TEMPORARY STRUCTURES AND USES (NON-EMERGENCIES)

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

**User notes:**

**About this appendix:** Appendix TBD provides jurisdictions with a means of incorporating guidelines for temporary structures and uses into their building code adoption process.

**Code development reminder:** Code change proposals to this appendix will be considered by the IBC—TBD Development Committee during the 2019 (Group TBD) Code Development Cycle. See explanation on page iv.

#### SECTION P101 GENERAL

**P101.1 Scope.** The provisions of this section shall apply to the construction, installation, alteration, relocation, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, and removal of emergency and non-emergency need based temporary structures or any appurtenances connected or attached to such temporary structures.

**P101.2 Objectives.** The objective of this Appendix is intended to provide flexibility to permit the use of innovative approaches and techniques to establish temporary structures and uses in a timely fashion while encountering unusual circumstances and to achieve and maintain the level of safety intended by the code.

#### SECTION P102 DEFINITIONS

**P102.1 Definitions.** The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

**TEMPORARY STRUCTURES.** That which is built, constructed or erected for a period of less than 180 days.

**TEMPORARY USE.** An activity or practice that is established at designated location for a period of less than 180 days Uses include, but are not limited to, those functional designations listed within the occupancy group descriptions in Section 302.1 of this code.

#### SECTION P103 CONSTRUCTION DOCUMENTS

**P103.1 General.** *Construction documents* shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the *building official*.

#### SECTION P104 CONFORMANCE.

**P104.1 General.** Temporary structures and uses shall conform to the structural strength, fire safety, *means of egress*, accessibility, light, ventilation and sanitary requirements of this code as necessary to ensure public health, safety and general welfare as determined by the *building official*.

#### SECTION P105 PERMITS.

**P105.1 Required permits.** Temporary structures that cover an area greater than 120 square feet (11.16 m<sup>2</sup>), including connecting areas or spaces with a common *means of egress* or entrance that are used or intended to be used for the gathering together of 10 or more persons, shall not be erected, operated or maintained for any purpose without obtaining a *permit* from the *building official*. When the *building official* determines that unusual circumstances exist, the 180 day time limitation can be extended.

#### SECTION P106 USE SPECIFIC PERFORMANCE STANDARD.

**P106.1 Non- Emergency Need Based Temporary Structures and Uses.** Temporary structures and uses shall conform to the structural strength, fire safety, *means of egress*, accessibility, light, ventilation and sanitary requirements of this code as necessary to ensure public health, safety and general welfare.

**P106.1.1 Temporary seating bleachers** – Temporary *Bleachers, grandstands and folding and telescopic seating* that are not building elements, shall comply with ICC 300.

**P106.1.2 Shade covers and tents.** Temporary one and two-story, membrane shade covers for Assembly uses and event media coverage and tent structures for haunted houses, sale events, stage covers shall conform to Section 3102 of the *International Building Code* and Chapter 31 of the *International Fire Code*, as necessary, to ensure public health, safety and general welfare.

**106.1.2.1 Haunted houses.** Temporary tent structures for haunted houses shall also conform to Section 411, Special Amusement Buildings as necessary to ensure public health, safety and general welfare.

**P106.1.3 Barns or other venues used for Assembly use special events.** Barns or other venues used for Assembly use special events shall conform to the *means of egress* requirements of Chapter 10 as necessary to ensure public health, safety and general welfare. and shall have an *exit access* travel distance of 100 feet (30 480 mm) or less. Barns or other venues that hold more than one Assembly Use special event in a 90 calendar day period shall be considered a change of use and shall conform to the provisions of the *International Building Code* or the *International Existing Building Code*.

#### SECTION P107 SERVICE UTILITIES.

**Note:** Coordinated with IBC Chapter 1 and ICC 500.

**P107.1 Temporary connection.** The *building official* shall have the authority to authorize the temporary connection of the building or system to the utility, the source of energy, fuel, or power, or the water system or sewer system in accordance with Section 112. Water closets and lavatories shall be either permanent plumbing fixtures installed within the tornado shelter, or temporary water closets or lavatories, such as chemical toilets or other means approved by the authority having jurisdiction.

#### Reference Standard NFPA 550 – Guide to the Fire Safety Concept Tree

**Reason:** The purpose of the proposed Appendix is to provide regulatory options to users based on trends that don't fit squarely in the IBC. The Appendix format allows for Jurisdictional adoption with or without amendments, creating solutions for these types of uses providing the AHJ with wide flexibility while ensuring public health, safety and general welfare for the end users

**Cost Impact:** The code change proposal will not increase the cost of construction. These options mirror established ICC codes sections and standards.

Note: 11-10-2020:

Comments - What pieces are not already covered by the temporary structures?

Move forward to FCAC for comment with revisions from Occupancy Temporary Use work group call on 11-16-2020.

---

---

## BCAC OCC Item 5/FCAC WG 5.16 Temporary Use (Group A and Group B)

### Proposal 5 (Group A)

IBC – **This is a new appendix**

### APPENDIX Q

#### TEMPORARY STRUCTURES AND USES TO SERVE EMERGENCIES

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

**User notes:**

**About this appendix:** Appendix TBD provides jurisdictions with a means of incorporating guidelines for temporary structures and uses into their building code adoption process.

**Code development reminder:** Code change proposals to this appendix will be considered by the IBC—TBD Development Committee during the 2019 (Group TBD) Code Development Cycle. See explanation on page iv.

#### SECTION Q101 GENERAL

**Q101.1 Scope.** The provisions of this section shall apply to the construction, installation, alteration, relocation, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, and removal of emergency and non-emergency need based temporary structures or any appurtenances connected or attached to such temporary structures.

**Q101.1.1 Objectives.** The objective of this Appendix is intended to provide flexibility to permit the use of innovative approaches and techniques to establish temporary structures and uses in a timely fashion while encountering unusual circumstances and to achieve are or are likely to be beyond the control of the services, personnel, equipment, and facilities of the authority having jurisdiction and may require the combined forces of other authority having jurisdictions to comb and maintain the level of safety intended by the code.

**Q101.1.2 Temporary use.** Temporary use during emergencies may exceed 180 days. Judgement shall be used by the code official to allow for temporary uses and conditions to continue for the duration of the emergency based on the needs of the emergency.

#### SECTION Q102 DEFINITIONS

**Q102.1 Definitions.** The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

**EMERGENCY.** Any event declared by Local, State, or Federal entities that temporarily overwhelms response capabilities, and may require the suspension or modification of regulations, codes, or standards to facilitate response to such an event.

**TEMPORARY STRUCTURES.** That which is built, constructed or erected for a period of less than 180 days.

**TEMPORARY USE.** An activity or practice that is established at designated location for a period of less than 180 days. Uses include, but are not limited to, those functional designations listed within the occupancy group descriptions in Section 302.1 of this code.

### SECTION 103 CONSTRUCTION DOCUMENTS

**Q103.1 General.** *Construction documents* shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the *building official*.

### SECTION 104 CONFORMANCE

**Q104.1 Conformance.** Temporary structures and uses shall conform to the structural strength, fire safety, *means of egress*, accessibility, light, ventilation and sanitary requirements of this section ~~code~~ as necessary to ensure public health, safety and general welfare.

**Q104.2 Changes Over Time.** As an emergency evolves, and more resources become available, plans should be made to bring structures and temporary uses in line with the main body of the code.

### SECTION P105 PERMITS.

**Q105.1 Required permits.** Temporary structures other than tents and other membrane structures that occupy an area greater than 120 square feet (11.16 m<sup>2</sup>), including connecting areas or spaces with a common *means of egress* or entrance that are used or intended to be used for the gathering together of 10 or more persons, shall not be erected, operated or maintained for any purpose without obtaining a *permit* from the *code official*. Tents and membrane structures should be permitted in accordance with the International Fire Code.

### SECTION 106 GENERAL STANDARDS FOR EMERGENCY STRUCTURES

**Q106.1.1 Scope.** The provisions of Section 106 shall apply to all structures constructed during emergencies.

**Q106.2 Intent.** The intent of this section is to provide the code official with the basic sections needed to provide a base level of safety in a structure built or repurposed for emergency use. It is understood that basic needs of protecting people from the initial emergency may outweigh strict adherence to the provisions of the International Building Code, and the International Fire Code.

**Q106.3 Structural Provisions.** The provisions of Chapter 16 shall apply to all structures built during an *emergency*.

**Exceptions:**

1. Tents and Membrane Structures erected in accordance with Chapter 31 of the International Fire Code
2. Structures intended to be constructed under the International Residential Code shall comply with the provisions of the IRC

**Q106.3 Fire Safety Provisions.** In determining fire safety requirements for structures subject to this provision, NFPA 550 shall be used to make determinations of safe conditions rather than strict adherence to the provisions of *International Fire Code*.



**Q106.3.1 Fire Safety, and Evacuation, Plans.** Fire Safety, Evacuation and Lockdown plans shall be made in accordance with IFC Sections 404.2.1 and 404.2.2. Plans should be updated if there are any physical changes to the layout of the structure.

**Q106.3.2 Training and Maintenance.** Employees and volunteers shall be familiar with the Fire Safety and Evacuation Plan. Structures in place for longer than 30 days shall conduct an evacuation drill once every 90 days.

**Q106.3.3 Fire Access.** Access shall be provided such that fire apparatus can reach within 100 feet of any egress point of the structure.

**Q106.3.4 Water Supply.** A fire water supply suitable to the fire chief shall be provided for the structure.

**Q106.3.5 Fire Protection.** An evaluation shall be performed to decide on fire protection needed utilizing NFPA 550 “Guide to the Fire Safety Concepts Tree” utilizing one of the fire safety objectives in sections 4.4, 4.5, 4.5.1, or 4.5.2.

**Q106.3.6 Fire Watch.** A Fire Watch in accordance with IFC Section 403.12.1 may be provided in lieu of other requirements of this section while the requirements of this section are constructed.

**Q106.4 Means of Egress.** Means of Egress shall comply with IBC sections 1004, 1005, 1006, 1007, 1008 and 1010.

**Q106.4.1 Exit Discharge.** Exits shall provide access to a public way, or to a safe dispersal area in accordance with 1028.5.

**Q106.4.2 Means of Egress Lighting.** The means of egress shall be lit whenever the means of egress is occupied.

**Exception:** Sleeping areas of an emergency structure.

**Q106.4.3 Exit Signs.** Exit signs shall be provided where the means of egress is not readily identifiable. Exit signs may be illuminated by the lighting provided in the structure.

**Q106.5 Accessibility.** A facility that is constructed to be accessible shall be maintained accessible during occupancy.

**Q106.6 Temporary connection.** The *building official* shall have the authority to authorize the temporary connection of the building or system to the utility, the source of energy, fuel, or power, or the water system or sewer system in accordance with Section 112. Water closets and lavatories shall be either permanent plumbing fixtures installed within the tornado shelter, or temporary water closets or lavatories, such as chemical toilets or other means approved by the authority having jurisdiction.

**Q106.6.1 Portable heating and cooling equipment.** Portable heating and cooling equipment shall be used in accordance with their listing, and manufacturer’s instructions.

**Q106.7 Change of Occupancy.** Existing buildings used in a way that was not originally intended by occupancy class or use shall be allowed without formally changing the occupancy class. The previous occupancy class shall be restored upon the conclusion of the emergency.

## SECTION Q107 Use Specific Standards

**Q107.1 Temporary hospitals, morgues, vaccination/testing facilities.** Health care facilities shall comply with Section A107.1 through Q107.4.

**Q107.1.1 General.** All health care facilities shall be designed, constructed, maintained, and operated to minimize the possibility of a fire emergency requiring the evacuation of occupants.

**Q107.1.2 Fire plan.** Because the safety of health care occupants cannot be ensured adequately by dependence on evacuation of the building, their protection from fire shall be provided by appropriate arrangement of facilities; adequate, trained staff; and development of operating and maintenance procedures composed of the following:

1. Design, construction, and compartmentation
2. Provision for detection, alarm, and extinguishment
3. Fire prevention procedures and planning, training, and drilling programs for the isolation of fire, transfer of occupants to areas of refuge, or evacuation of the building

**Q107.1.3 Separation of Temporary and Permanent Structures.** Temporary structures shall be separated from permanent structures by a distance of at least 10 feet.

**Q107.1.4 Membrane Structures Under Projections.** Membrane structures of less than 100 square feet may be placed under projections of a permanent building provided the permanent building is protected with a fire sprinkler system installed in accordance with 903.3.1.1 of the IBC.

**Q107.2 Use of tiny houses or mobile vehicles.** Tiny houses or mobile vehicles used for temporary housing for facilities such as hospitals, emergency support/responders or homeless shelters shall comply with Section Q107.2.1 through Q107.2.5.

**Q107.2.1 Fire Separation Distances.** When used, tiny houses or mobile vehicles shall be separated by not less than 5 feet between structures unless protected by an automatic sprinkler system installed in accordance with Section 903 of the IBC.

**Q107.2.2 Fire Breaks.** Tiny houses and other mobile structures shall not be grouped in bunches of more than 20 units. Fire breaks of at least 20 feet shall be provided between each group of 20 structures.

**Q107.2.3 Smoke Alarms.** Tiny Houses and mobile vehicles used for sleeping purposes shall be equipped with a smoke alarm complying with section 907.2.10 of the IFC.

**Q107.2.4 Carbon Monoxide Detectors.** Carbon Monoxide Detectors shall be installed if the structure uses any fossil fuel or wood burning appliances.

**Q107.2.5 Structures located in a Wildland Urban Interface Zone.** Tiny Houses and mobile vehicles used for temporary housing that are located in a Wildland Urban Interface area shall be provided with defensible space in accordance with the International Wildland Urban Interface Code Section 603.

**Q107.3 Temporary Emergency shelters during/after a natural disaster – wildfire, tornado, flood**  
Where emergency shelters are planned, the process of organizing, planning, implementing, and evaluating a program for mass evacuation, sheltering, and re-entry shall comply with NFPA 1660

- Standard on Community Risk Assessment, Pre-Incident Planning, Mass Evacuation, Sheltering, and Re-entry Programs

**Note: Language is from the scope of the NFPA 1660 standard. This standard is replacing NFPA 1616.**

**Q107.4 Increased occupant load.** Temporary waivers for allowing for additional occupants in current building for such as hospital beds in other than care recipient sleeping room and tents attached to structures shall comply with Section Q107.4.1 through Q107.4.3.1.

**Q107.4.1 Authorization.** The Code Official is authorized to allow for a temporary increase in the number of occupants in a building during an emergency.

**Q107.4.2 Maintenance of the Means of Egress.** The required width of a means of egress shall be maintained.

**Q107.4.3 Change of Use for a Space.** The change of use for a space is authorized and shall not be considered a change of use for the duration of the emergency.

**Q107.4.3.1 Sleeping Areas.** If an area is going to be used for sleeping purposes, the space shall be equipped with single station smoke detectors in accordance with Section 907.2.10 of the IFC, or be provided with a fire watch in accordance with Section 403.12.1 of the IFC.

**Q107.5 Dormitory structures.** Dormitories in tents or membrane structures shall comply with Section Q107.5.1 through Q107.5.5 and Chapter 31 of the IFC.

**Note: This section is mixing tents and tiny house and mobile homes – original text was only ‘fabric skinned’ – IFC used tents and membrane structures. Therefore, it is not addressed there?**

**Q107.5.1 Fire Separation Distances.** Dormitories shall be separated by not less than 5 feet between structures unless protected by an automatic sprinkler system installed in accordance with Section 903 of the IBC.

**Q107.5.2 Fire Breaks.** Tiny houses and other mobile structures shall not be grouped in bunches of more than 20 units. Fire breaks of at least 20 feet shall be provided between each group of 20 structures.

**Q107.5.3 Smoke Alarms.** Tiny Houses and mobile vehicles used for sleeping purposes shall be equipped with a smoke alarm complying with section 907.2.10 of the IFC.

**Q107.5.4 Carbon Monoxide Detectors.** Carbon Monoxide Detectors shall be installed if the structure uses any fossil fuel or wood burning appliances.

**Q107.5.5 Structural stability and anchorage required.** Fabric skinned dormitory structures and their appurtenances shall be designed and installed to withstand the elements of weather and prevent collapsing. Anchorage of the structure shall be provided in accordance with the manufacturers installation instructions.

**Q107.6 Sleeping facilities in occupancies other than Group I or R.** Sleeping facilities in occupancies other than Group I or R shall comply with Section Q107.6.1. through Q107.6.2.

Note: This said churches only – could be other religious buildings, schools, hotel assembly spaces. This make this more generic. Also added fire watch option in Q107.6.1.

**Q107.6.1 Smoke Alarms.** Spaces used for sleeping purposes shall be equipped with a smoke alarm complying with section 907.2.10 of the IFC or be provided with a fire watch in accordance with Section 403.12.1 of the IFC..

**Q107.6.2 Carbon Monoxide Detectors.** Carbon Monoxide Detectors shall be installed if the structure uses any fossil fuel or wood burning appliances.

## SECTION Q108 SERVICE UTILITIES.

Note: Coordinated with IBC Chapter 1 and ICC 500.

**Q107.1 Temporary connection.** The *building official* shall have the authority to authorize the temporary connection of the building or system to the utility, the source of energy, fuel, or power, or the water system or sewer system in accordance with Section 112. Water closets and lavatories shall be either permanent plumbing fixtures installed within the tornado shelter, or temporary water closets or lavatories, such as chemical toilets or other means approved by the authority having jurisdiction.

### Reference Standard NFPA 550 – Guide to the Fire Safety Concepts Tree

**Reason:** The purpose of the proposed Appendix is to provide regulatory options to users based on trends that don't fit squarely in the IBC. The Appendix format allows for Jurisdictional adoption with or without amendments, creating solutions for these types of uses providing the AHJ with wide flexibility while ensuring public health, safety and general welfare for the end users

**Cost Impact:** The code change proposal will not increase the cost of construction.  
These options mirror established ICC codes sections and standards.

Note: 11-10-2020:

Comments - What pieces are not already covered by the temporary structures?

Move forward to FCAC for comment with revisions from Occupancy Temporary Use work group call on 11-16-2020.

---

---

## BCAC ADM Item 15 – Coordination of permit requirements

Rep: Amber Armstrong

Date: 10-29-2020

### IFC

**MEMBRANE STRUCTURE.** An air-inflated, air-supported, cable or frame-covered structure as defined by the *International Building Code* and not otherwise defined as a **tent**. See Chapter 31 of the *International Building Code*.

**OUTDOOR ASSEMBLY EVENT.** An outdoor gathering of persons for any purpose.

**TEMPORARY SPECIAL EVENT STRUCTURE.** Any temporary ground-supported structure, platform, stage, stage scaffolding or rigging, canopy, tower supporting audio or visual effects equipment or similar structures not regulated within the scope of the *International Building Code*.

**TENT.** A structure, enclosure, **umbrella structure** or shelter, with or without sidewalls or drops, constructed of fabric or pliable material supported in any manner except by air or the contents it protects (see "*Umbrella structure*").

**UMBRELLA STRUCTURE.** A structure, enclosure or shelter with or without sidewalls or drops, constructed of fabric or pliable material supported by a central pole or poles (see “*Tent*”).

## SECTION 105 PERMITS

105.5 Required operational permits. The *fire code official* is authorized to issue operational permits for the operations set forth in Sections 105.5.2 through 105.5.52.

105.5.38 **Outdoor assembly event.** An operational permit is required to conduct an *outdoor assembly event* where planned attendance exceeds 1,000 persons.

**105.5.49 Temporary membrane structures, special event structures and tents.** An operational permit is required to operate an air-supported temporary **membrane structure**, a **temporary special event structure** or a **tent** having an area in excess of 400 square feet (37 m<sup>2</sup>).

**Exceptions:**

1. **Tents** used exclusively for recreational camping purposes.
2. **Funeral tents and curtains, or extensions attached thereto, when used for funeral services.**
2. **Tents** open on all sides, which comply with all of the following:
  - 2.1. Individual **tents** having a maximum size of 700 square feet (65 m<sup>2</sup>).
  - 2.2. The aggregate area of multiple **tents** placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed 700 square feet (65 m<sup>2</sup>) total.
  - 2.3. A minimum clearance of 12 feet (3658 mm) to structures and other **tents** shall be provided.

[A] 105.6 Required construction permits. The *fire code official* is authorized to issue construction permits for work as set forth in Sections 105.6.1 through 105.6.24.

[A] 105.6.21 **Special event structure.** A single construction permit is required to erect and take down a **temporary special event structure** as set forth in Section 105.5.49.

[A] 105.6.24 **Temporary membrane structures and tents.** A construction permit is required to erect an air-supported temporary **membrane structure**, a **temporary stage canopy temporary special event structure** or a **tent** having an area in excess of 400 square feet (37 m<sup>2</sup>) as set forth in Section 105.5.49.

**Exceptions:**

1. ~~Tents used exclusively for recreational camping purposes.~~
2. ~~Funeral tents and curtains, or extensions attached thereto, when used for funeral services.~~
3. ~~Tents and awnings open on all sides, which comply with all of the following:~~
  - 3.1. ~~Individual tents shall have a maximum size of 700 square feet (65 m<sup>2</sup>).~~
  - 3.2. ~~The aggregate area of multiple tents placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed 700 square feet (65 m<sup>2</sup>) total.~~
  - 3.3. ~~A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be maintained.~~

## CHAPTER 31 **TENTS, TEMPORARY SPECIAL EVENT STRUCTURES AND OTHER MEMBRANE STRUCTURES**

### SECTION 3103 TEMPORARY **TENTS** AND **MEMBRANE STRUCTURES**

3103.2 Approval required. **Tents** and **membrane structures** required to have a permit as set forth in Sections 105.5 and 105.6 ~~having an area in excess of 400 square feet (37 m<sup>2</sup>)~~ shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the *fire code official*.

**Exceptions:**

- ~~1. Tents used exclusively for recreational camping purposes.~~
- ~~2. Tents open on all sides that comply with all of the following:
  - ~~2.1. Individual tents having a maximum size of 700 square feet (65 m<sup>2</sup>).~~
  - ~~2.2. The aggregate area of multiple tents placed side by side without a fire break clearance of 12 feet (3658 mm), not exceeding 700 square feet (65 m<sup>2</sup>) total.~~
  - ~~2.3. A minimum clearance of 12 feet (3658 mm) to all structures and other tents.~~~~

~~3103.4 Permits. Permits shall be required as set forth in Sections 105.5 and 105.6.~~

#### SECTION 3104 TEMPORARY AND PERMANENT TENTS AND MEMBRANE STRUCTURES

#### SECTION 3105 TEMPORARY SPECIAL EVENT STRUCTURES

3105.2 Approval. Temporary special event structures required to have a permit as set forth in Sections 105.5 and 105.6 in excess of 400 square feet (37 m<sup>2</sup>) shall not be erected, operated or maintained for any purpose without first obtaining approval and a permit from the *fire code official* and the building official.

~~3105.3 Permits. Permits shall be required as set forth in Sections 105.5 and 105.6.~~

#### SECTION 3106 OUTDOOR ASSEMBLY EVENTS

3106.2.2 Permits. An operational permit shall be required as set forth in Section 105.5.

Reason: In looking at requirements for temporary membrane structures, special event structures in Permits and Chapter 31 has indicated an inconsistency in terminology. This deletion of text will not change requirements, but instead put the criteria in one location so it will remain consistent over time.

Cost Impact: None. Editorial.

## IBC

### SECTION 3102

MEMBRANE STRUCTURES 3102.1 General. The provisions of Sections 3102.1 through 3102.8 shall apply to *air-supported, air-inflated, membrane-covered cable, membrane-covered frame* and tensile *membrane structures*, collectively known as *membrane structures*, erected for a period of 180 days or longer. Those erected for a shorter period of time shall comply with the *International Fire Code*. Membrane structures covering water storage facilities, water clarifiers, water treatment plants, sewage treatment plants, *greenhouses* and similar facilities not used for human occupancy are required to meet only the requirements of Sections 3102.3.1 and 3102.7. Membrane structures erected on a building, balcony, deck or other structure for any period of time shall comply with this section.

### SECTION 3103 TEMPORARY STRUCTURES



3103.1 General. The provisions of Sections 3103.1 through 3103.4 shall apply to structures erected for a period of less than 180 days. *Special event structures*, tents, umbrella structures and other membrane structures erected for a period of less than 180 days shall also comply with the *International Fire Code*. Those erected for a longer period of time shall comply with applicable sections of this code.

3103.1.1 Conformance. Temporary structures and uses shall conform to the structural strength, fire safety, *means of egress*, accessibility, light, *ventilation* and sanitary requirements of this code as necessary to ensure public health, safety and general welfare.

3103.1.2 Permit required. Temporary structures that cover an area greater than 120 square feet (11.16 m<sup>2</sup>), including connecting areas or spaces with a common *means of egress* or entrance that are used or intended to be used for the gathering together of 10 or more persons, shall not be erected, operated or maintained for any purpose without obtaining a *permit* from the *building official*.

Notes 11-10-2020: Primarily editorial. Move forward to FCAC if approved by Administrative work group on 11-12-2020.

---

## FCAC WG1.3/BCAC Egress Item 6 corridor continuity

Notes: **Elevator lobbies** and **smoke and draft control**; reference to **Chapter 30**; section names of references are provided for information; **blue text is new to 2021**

### IBC

**[BE] CORRIDOR.** An enclosed *exit access* component that defines and provides a path of egress travel.

**[F] ELEVATOR GROUP.** A grouping of elevators in a building located adjacent or directly across from one another that responds to common hall call buttons.

**[BF] FIRE DOOR ASSEMBLY.** Any combination of a *fire door*, frame, hardware and other accessories that together provide a specific degree of fire protection to the opening.

## SECTION 402 COVERED MALL AND OPEN MALL BUILDINGS

**402.8.7 Service areas fronting on exit passageways.** Mechanical rooms, electrical rooms, building service areas and service elevators are permitted to open directly into *exit passageways*, provided that the *exit passageway* is separated from such rooms with not less than 1-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both. The *fire protection rating* of openings in the *fire barriers* shall be not less than 1 hour.

## SECTION 405 UNDERGROUND BUILDINGS

**405.4.3 Elevators.** Where elevators are provided, each compartment shall have direct access to an elevator. Where an elevator serves more than one compartment, an **enclosed elevator lobby** shall be provided and shall be separated from each compartment by a *smoke barrier* in accordance with Section 709. Doorways in the *smoke barrier* shall be protected by *fire door assemblies* that comply with Section 716, shall comply with the smoke and draft control assembly requirements of Section 716.2.2.1 with the UL 1784 test conducted without an artificial bottom seal, and shall be automatic-closing by smoke detection in accordance with Section 716.2.6.6.

## SECTION 407 GROUP I-2

**407.5.5 Horizontal assemblies.** *Horizontal assemblies* supporting *smoke barriers* required by this section shall be designed to resist the movement of smoke. **Elevator lobbies** shall be in accordance with **Section 3006.2**.

## SECTION 708 FIRE PARTITIONS SECTION 708 FIRE PARTITIONS

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

1. Separation walls as required by Section 420.2 for Group I-1 and Group R occupancies.
2. Walls separating tenant spaces in *covered and open mall buildings* as required by Section 402.4.2.1.
3. *Corridor walls* as required by Section 1020.3.
4. **Enclosed elevator lobby** separation as required by **Section 3006.3 (hoistway opening protection)**.
5. Egress balconies as required by Section 1021.2
6. Walls separating *ambulatory care facilities* from adjacent spaces, *corridors* or tenant as required by Section 422.2.
7. Walls separating *dwelling and sleeping units* in Groups R-1 and R-2 in accordance with Sections 907.2.8.1 and 907.2.9.1.
8. Vestibules in accordance with Section 1028.2.

**708.4.1 Fire partition walls enclosing elevator lobbies.** *Fire partition walls used to enclose enclose elevator lobbies in accordance with Section 3006.3 Item 1, shall form an effective membrane enclosure that terminates at a fire barrier wall having a level of fire protection rating not less than 1 hour, another fire partiion wall or an outside wall. A smoke and draft control door assembly as specified in Section 716.2.2.1.1 shall not be required at each elevator hoistway door opening or at an exit doorway between the elevator lobby and an exit enclosure.*

**708.6 Openings.** Openings in a *fire partition* shall be protected in accordance with Section 716.

## SECTION 709 SMOKE BARRIERS

**709.4Continuity.** *Smoke barriers shall form an effective membrane continuous from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, deck or slab above, including continuity through concealed spaces, such as those found above suspended ceilings, and interstitial structural and mechanical spaces. The supporting construction shall be protected to afford the required fire-resistance rating of the wall or floor supported in buildings of other than Type IIB, IIIB or VB construction. Smoke-barrier walls used to separate smoke compartments shall comply with Section 709.4.1. Smoke-barrier walls used to enclose areas of refuge in accordance with Section 1009.6.4 or to enclose elevator lobbies in accordance with Section 405.4.3 (elevators-underground buildings), 3007.6.2 (lobby enclosure-fire service access), or 3008.6.2 (lobby enclosure – occupant evacuation elevator) shall comply with Section 709.4.2.*

**Exception:** *Smoke-barrier walls are not required in interstitial spaces where such spaces are designed and constructed with ceilings or exterior walls that provide resistance to the passage of fire and smoke equivalent to that provided by the smoke-barrier walls.*

**709.4.2 Smoke-barrier walls enclosing areas of refuge or elevator lobbies.** *Smoke-barrier walls used to enclose areas of refuge in accordance with Section 1009.6.4, or to enclose elevator lobbies in accordance with Section 405.4.3 (elevators-underground buildings), 3007.6.2 (lobby enclosure-fire service access), or 3008.6.2 (lobby enclosure – occupant evacuation elevator), shall form an effective membrane enclosure that terminates at a fire barrier wall having a level of fire protection rating not less than 1 hour, another smoke barrier wall or an outside wall. A smoke and draft control door assembly as specified in Section 716.2.2.1.1 shall not be required at each elevator hoistway door opening or at each exit doorway between an area of refuge and the exit enclosure or the elevator lobby and an exit enclosure.*

## SECTION 716 OPENING PROTECTIVES

**716.2.2 Performance requirements.** *Fire door assemblies shall be installed in the assemblies specified in Table 716.1(2) and shall comply with the fire protection rating specified.*

**716.2.2.1 Door assemblies in corridors and smoke barriers.** *Fire door assemblies required to have a minimum fire protection rating of 20 minutes where located in corridor walls or smoke barrier walls having a fire-resistance rating in accordance with Table 716.1(2) shall be tested in accordance with NFPA 252 or UL 10C without the hose stream test.*

**Exceptions:**

1. Viewports that require a hole not larger than 1 inch (25 mm) in diameter through the door, have not less than a 0.25-inch-thick (6.4 mm) glass disc and the holder is of metal that will not melt out where subject to temperatures of 1,700°F (927°C).
2. *Corridor* door assemblies in occupancies of Group I-2 shall be in accordance with Section 407.3.1.
3. Unprotected openings shall be permitted for *corridors* in multitheater complexes where each motion picture auditorium has not fewer than one-half of its required *exit* or *exit access doorways* opening directly to the exterior or into an *exit* passageway.
4. Horizontal sliding doors in *smoke barriers* that comply with Sections 408.6 and 408.8.4 in occupancies in Group I-3.
5. In corridor walls required to have a fire-resistance rating in accordance with Section 1020.2, a fire door assembly at an elevator hoistway door opening is not required to meet the smoke and draft control door assembly requirements in this section where 1) the elevator connect 3 stories or less and 2) the building height is 3 stories or less.

**716.2.2.2 Door assemblies in other fire partitions.** *Fire door* assemblies required to have a minimum *fire protection rating* of 20 minutes where located in other *fire partitions* having a *fire-resistance rating* of 0.5 hour in accordance with Table 716.1(2) shall be tested in accordance with NFPA 252, UL 10B or UL 10C with the hose stream test.

## SECTION 907 FIRE ALARM AND DETECTION SYSTEMS

**[F] 907.2.2.1 Ambulatory care facilities.** *Fire areas* containing *ambulatory care facilities* shall be provided with an electronically supervised automatic smoke detection system installed within the ambulatory care facility and in *public use areas* outside of tenant spaces, including public *corridors* and **elevator lobbies**.

**Exception:** Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, provided that the occupant notification appliances will activate throughout the notification zones upon sprinkler waterflow.

**[F] 907.2.13.1.1 Area smoke detection.** Area smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section shall activate the emergency voice/alarm communication system in accordance with Section 907.5.2.2. In addition to smoke detectors required by Sections 907.2.1 through 907.2.9, smoke detectors shall be located as follows:

1. In each mechanical equipment, electrical, transformer, telephone equipment or similar room that is not provided with sprinkler protection.
2. In each elevator machine room, machinery space, control room and control space and in **elevator lobbies**.

**[F] 907.2.13.2 Fire department communication system.** Where a wired communication system is *approved* in lieu of an **in-building two-way** emergency responder **communication** coverage system in accordance with Section 510 of the *International Fire Code*, the wired fire department communication system shall be designed and installed in accordance with NFPA 72 and shall operate between a fire command center complying with Section 911, elevators, **elevator lobbies**, emergency and standby power rooms, fire pump rooms, *areas of refuge* and inside *interior exit stairways*. The fire department communication device shall be provided at each floor level within the *interior exit stairway*

**[F] 907.2.18.1 Smoke detectors.** Not fewer than one smoke detector *listed* for the intended purpose shall be installed in all of the following areas:

1. Mechanical equipment, electrical, transformer, telephone equipment, elevator machine or similar rooms.
2. **Elevator lobbies.**
3. The main return and exhaust air plenum of each air-conditioning system serving more than one *story* and located in a serviceable area downstream of the last duct inlet.
4. Each connection to a vertical duct or riser serving two or more floors from return air ducts or plenums of heating, ventilating and air-conditioning systems, except that in Group R occupancies, a *listed* smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cubic feet per minute (2.4 m<sup>3</sup>/s) and serving not more than 10 air-inlet openings.

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

**Exceptions:**

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

## SECTION 909

### SMOKE CONTROL SYSTEMS

**909.21 Elevator hoistway pressurization alternative.** Where elevator hoistway pressurization is provided in lieu of required **enclosed elevator lobbies**, the pressurization system shall comply with Sections 909.21.1 through 909.21.11.

**909.21.6 Activation of pressurization system.** The elevator pressurization system shall be activated upon activation of either the building fire alarm system or the **elevator lobby** smoke detectors. Where both a building fire alarm system and **elevator lobby** smoke detectors are present, each shall be independently capable of activating the pressurization system.

## SECTION 1009

### ACCESSIBLE MEANS OF EGRESS

**1009.6 Areas of refuge.** Every required *area of refuge* shall be accessible from the space it serves by an *accessible means of egress*.

**1009.6.4 Separation.** Each *area of refuge* shall be separated from the remainder of the *story* by a *smoke barrier* complying with Section 709 or a *horizontal exit* complying with Section 1026. Each *area of refuge* shall be designed to minimize the intrusion of smoke.

**Exceptions:**

1. *Areas of refuge* located within an enclosure for *interior exit stairways* complying with Section 1023.
2. *Areas of refuge* in outdoor facilities where *exit access* is essentially open to the outside.

## SECTION 1016 EXIT ACCESS

**1016.1 General.** The *exit access* shall comply with the applicable provisions of Sections 1003 through 1015. *Exit access* arrangement shall comply with Sections 1016 through 1021.

**1016.2 Egress through intervening spaces.** Egress through intervening spaces shall comply with this section.

1. *Exit access* through an enclosed elevator lobby is permitted. Where access to two or more exits or exit access doorways is required in Section 1006.2.1, access to not less than one of the required exits shall be provided without travel through the enclosed elevator lobbies required by Section 3006. Where the path of *exit access* travel passes through an enclosed elevator lobby, the level of protection required for the enclosed elevator lobby is not required to be extended to the exit unless direct access to an exit is required by other sections of this code.

*(No change to Item 2 through 5 or the exceptions)*

## SECTION 1020 CORRIDORS

**1020.1 General.** Corridors serving as an exit access component in a means of egress system shall comply with the requirements of Sections 1020.2. through 1020.7.

**1020.2 Construction.** Corridors shall be fire-resistance rated in accordance with Table 1020.2. The corridor walls required to be fire-resistance rated shall comply with Section 708 for *fire partitions*.

**Exceptions:**

1. A *fire-resistance rating* is not required for corridors in an occupancy in Group E where each room that is used for instruction has not less than one door opening directly to the exterior and rooms for assembly purposes have not less than one-half of the required *means of egress* doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A *fire-resistance rating* is not required for corridors contained within a *dwelling unit* or *sleeping unit* in an occupancy in Groups I-1 and R.
3. A *fire-resistance rating* is not required for corridors in open parking garages.
4. A *fire-resistance rating* is not required for corridors in an occupancy in Group B that is a space requiring only a single *means of egress* complying with Section 1006.2.
5. Corridors adjacent to the exterior walls of buildings shall be permitted to have unprotected openings on unrated exterior walls where unrated walls are permitted by Table 705.5 and unprotected openings are permitted by Table 705.8.

**1020.2.1 Hoistway opening protection.** Fire door assemblies at elevator hoistway door openings in fire-resistant rated corridors shall comply with Section 716. Elevator hoistway door openings serving an elevator or elevator group shall be protected in accordance with Section 3006.2.1.

**TABLE 1020.2  
CORRIDOR FIRE-RESISTANCE RATING**

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE- RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system <sup>e</sup>



H-1, H-2, H-3	All	Not Permitted	1 <sup>c</sup>
H-4, H-5	Greater than 30	Not Permitted	1 <sup>c</sup>
A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	Not Permitted	0.5 <sup>c</sup> /1 <sup>d</sup>
I-2 <sup>a</sup>	All	Not Permitted	0
I-1, I-3	All	Not Permitted	1 <sup>b, c</sup>
I-4	All	1	0

- a. For requirements for occupancies in Group I-2, see Sections 407.2 and 407.3.
- b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.8.
- c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.
- d. Group R-3 and R-4 buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.3. See Section 903.2.8 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.3.

**1020.7 Corridor continuity.** *Fire-resistance-rated corridors* shall be continuous from the point of entry to an *exit*, and shall not be interrupted by intervening rooms. Where the path of egress travel within a *fire-resistance-rated corridor* to the exit includes travel along unenclosed *exit access stairways* or *ramps*, the *fire-resistance rating* shall be continuous for the length of the *stairway* or *ramp* and for the length of the connecting *corridor* on the adjacent floor leading to the *exit*.

**Exceptions:**

1. Foyers, lobbies or reception rooms constructed as required for *corridors* shall not be construed as intervening rooms.
2. **Enclosed elevator lobbies** as permitted by Item 1 of Section 1016.2 shall not be construed as intervening rooms.

## SECTION 1023 INTERIOR EXIT STAIRWAYS AND RAMPS

**1023.10 Elevator lobby identification signs.** At landings in interior exit *stairways* where two or more doors lead to the floor level, any door with direct access to an **enclosed elevator lobby** shall be identified by signage located on the door or directly adjacent to the door stating "**Elevator Lobby**." Signage shall be in accordance with Section 1023.9.1, Items 4, 5 and 6.



## SECTION 3002 HOISTWAY ENCLOSURES

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

**3002.1.10 Opening protectives.** Openings in hoistway enclosures shall be protected as required in Chapter 7.

**Exception:** The elevator car doors and the associated **elevator** hoistway **enclosure** doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I Emergency Recall Operation.

**3002.6 Prohibited doors.** Doors, other than **elevator** hoistway doors and the elevator car door, shall be prohibited at the point of access to an elevator car unless such doors are readily openable from the car side without a key, tool, special knowledge or effort.

## SECTION 3006 **ELEVATOR LOBBIES AND HOISTWAY OPENING PROTECTION**

**3006.1 General.** Protection shall be provide for an Elevator hoistway, door opening or elevator hoistway door openings at an elevator group and enclosed elevator lobbies shall be provided in accordance with the following:

1. Where **an elevator** hoistway **door opening protection** is required to be protected by Section 3006.2, such protection shall be in accordance with Section 3006.3.
2. Where **enclosed elevator lobbies** are required for underground buildings, such lobbies shall comply with Section 405.4.3 (elevators-lobby requirements).
3. Where an area of refuge is required and an **enclosed elevator lobby** is provided to serve as an area of refuge, the **enclosed elevator lobby** shall comply with Section 1009.6 (area of refuge).
4. Where fire service access elevators are provided, **enclosed elevator lobbies** shall comply with Section 3007.6 (fire service access elevator lobby).
5. Where occupant evacuation elevators are provided, **enclosed elevator lobbies** shall comply with Section 3008.6 (occupant evacuation elevator lobby).

**3006.2 Hoistway opening protection required.** An Elevator hoistway door opening or elevator hoistway door openings at an elevator group shall be protected in accordance with Section 3006.3 where an elevator hoistway connects more than three stories, is required to be enclosed within a shaft enclosure in accordance with Section 712.1.1 (shaft enclosure) and any of the following conditions apply:

1. The building is not protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
2. The building contains a Group I-1, Condition 2 occupancy.
3. The building contains a Group I-2 occupancy.
4. The building contains a Group I-3 occupancy.
5. The building is a high rise and the elevator hoistway is more than 75 feet (22 860 mm) in height. The height of the hoistway shall be measured from the lowest floor to the highest floor of the floors served by the hoistway.

**Exceptions:**

1. Enclosed elevator lobbies or Protection of elevator hoistway door openings is not required where the elevator serves only open parking garages in accordance with Section 406.5.
2. Enclosed elevator lobbies or Protection of elevator hoistway door openings is not required at the level(s) of exit discharge, provided that the level(s) of exit discharge is equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
3. **Enclosed elevator lobbies** and protection of elevator hoistway door openings are not required on levels where the elevator hoistway opens to the exterior.

**3006.2.1 Rated corridors.** Where corridors are required to be fire-resistance rated **fire partitions** in accordance with Section 1020.1, elevator hoistway **door** openings **that open into the corridor** shall **also** be protected in accordance with Section ~~3006.3-716~~.

**3006.3 Elevator Hoistway door opening protection.** Where Section 3006.2 requires protection of the **an** elevator hoistway door opening **or elevator hoistway door openings at an elevator group**, the protection shall be provided by one of the following:

1. An **enclosed elevator lobby** shall be provided at each floor to separate the elevator hoistway ~~shaft enclosure doors door openings~~ from each floor by *fire partitions* in accordance with Section 708 (fire partitions). In addition, doors protecting openings in the ~~elevator lobby enclosure walls fire partitions~~ shall comply with Section 716.2.2.1 (door assemblies in corridors and smoke barriers) ~~as required for corridor walls~~. Penetrations of the ~~enclosed elevator lobby fire partitions~~ by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1 (corridors-duct and air transfer openings).
2. An **enclosed elevator lobby** shall be provided at each floor to separate the elevator hoistway ~~shaft enclosure doors door openings~~ from each floor by *smoke partitions* in accordance with Section 710 (smoke partitions) where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2. In addition, doors protecting openings in the *smoke partitions* shall comply with Sections 710.5.2.2 (smoke and draft control doors), 710.5.2.3 (self- or automatic-closing doors) and 716.2.6.1 (door closing). Penetrations of the ~~enclosed elevator lobby smoke partitions~~ by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1 (corridors-duct and air transfer openings).

*Note: Should this last reference be 717.5.7 (smoke partitions – air transfer openings)*

3. Additional doors shall be provided at each elevator hoistway door opening in accordance with Section 3002.6 (prohibited doors). Such door shall comply with the smoke and draft control door assembly requirements in Section 716.2.2.1.1 (smoke and draft controls) when tested in accordance with UL 1784 without an artificial bottom seal.
4. The elevator hoistway shall be pressurized in accordance with Section 909.21 (Elevator hoistway pressurization alternative).

**3006.4 Means of egress.** **Elevator lobbies** shall be provided with not less than one means of egress complying with Chapter 10 and other provisions in this code. Egress through an **enclosed elevator lobby** shall be permitted in accordance with Item 1 of Section 1016.2.

## SECTION 3007 FIRE SERVICE ACCESS ELEVATOR

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

**Exception:** Where a fire service access elevator has two entrances onto a floor, the second entrance shall be permitted to be protected in accordance with Section 3006.3 (hoistway opening protection).

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

**Exception:** Access to an *interior exit stairway or ramp* shall be permitted to be through a protected path of travel that has a level of fire protection not less than the **elevator lobby** enclosure. The protected path shall be separated from the enclosed **elevator lobby** through an opening protected by a smoke and draft control assembly in accordance Section 716.2.2.1 (**smoke and draft controls**).

**3007.6.2 Lobby enclosure.** The fire service access **elevator lobby** shall be enclosed with a *smoke barrier* having a *fire-resistance rating* of not less than 1 hour, except that lobby doorways shall comply with Section 3007.6.3.

**Exception:** Enclosed fire service access **elevator lobbies** are not required at the *levels of exit discharge*.

**3007.6.3 Lobby doorways.** Other than doors to the **elevator** hoistway, elevator control room or elevator control space, each doorway ~~to an enclosed fire service access elevator lobby in the fire barrier~~ shall be provided with a  $3/4$ -hour *fire door assembly* complying with Section 716 (opening protectives). The *fire door assembly* shall comply with the smoke and draft control door assembly requirements of Section 716.2.2.1.1 (smoke and draft controls) and be tested in accordance with UL 1784 without an artificial bottom seal.

## SECTION 3008 OCCUPANT EVACUATION ELEVATORS

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

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

**Exceptions:**

1. Access to an *interior exit stairway or ramp* shall be permitted to be through a protected path of travel that has a level of fire protection not less than the **elevator lobby** enclosure. The protected path shall be separated from the enclosed **elevator lobby** through an opening protected by a smoke and draft control assembly in accordance Section 716.2.2.1 (**smoke and draft controls**).
2. Elevators that only service an *open parking garage* and the **elevator lobby** of the building shall not be required to provide *direct access*.

**3008.6.2 Elevator Lobby enclosure.** The occupant evacuation **elevator lobby** shall be enclosed with a *smoke barrier* having a *fire-resistance rating* of not less than 1 hour, except that lobby doorways shall comply with Section 3008.6.3.

**Exception:** Enclosed occupant evacuation **elevator lobbies** are not required at the *levels of exit discharge*.

**3008.6.3 Elevator Lobby doorways.** Other than the doors to the elevator hoistway, elevator machine rooms, machinery spaces, control rooms and control spaces ~~within the lobby enclosure in the smoke barrier~~, each doorway to an occupant evacuation elevator lobby shall be provided with a <sup>3</sup>/<sub>4</sub>-hour *fire door assembly* complying with Section 716 (opening protectives). The *fire door assembly* shall comply with the smoke and draft control assembly requirements of Section 716.2.2.1.1 (smoke and draft controls) and be tested in accordance with UL 1784 without an artificial bottom seal.

**3008.6.3.1 Vision panel.** A vision panel shall be installed in each *fire door assembly* ~~protecting the lobby doorway in the smoke barrier~~. The vision panel shall consist of fire-protection-rated glazing, shall comply with the requirements of Section 716 (opening protectives) and shall be located to furnish clear vision of the occupant evacuation elevator lobby.

**3008.6.3.2 Door closing.** Each *fire door assembly* ~~protecting the lobby doorway in the smoke barrier~~ shall be automatic-closing upon receipt of any fire alarm signal from the *emergency voice/alarm communication system* serving the building.

Reason: The primary purpose of this proposal is to provide consistent language for the doors that when closed serve as opening protectives on an elevator shaft; and when open the provide access to the elevator cab. This ‘elevator hoistway door opening’ is a type of fire door assembly. This fire door assembly is an opening protective for the elevator shaft which is a fire barrier. If the elevator opens into a rated corridor, this same fire rated assembly has to meet the opening protectives for a fire partition. In addition to the door itself, an elevator or elevator group (see definition), may have additional requirements for protection of the area immediately in front of the elevator hoistway doors opening(s). This is an enclosed elevator lobby where this area serves underground buildings, areas of refuge, fire service access elevators and occupant evacuation elevators. An enclosed elevator lobby is also an option for elevators that serve more than three stories (Section 3006.3 Item 1 and 2). Since this protection option also includes pressurization or additional doors immediately in front of the elevator hoistway door opening, it was decided to not call these options ‘lobbies’. Unfortunately by also using the term “opening protection”, it has confused the application. By saying “an elevator hoistway door opening or elevator hoistway door openings at an *elevator group*” it is understood that this can be individual opening protection or a group of elevators protected together. It should be noted that throughout the code, the term ‘elevator lobby’ is used to reference all these options. The walls of the elevator lobby that are not also the walls of the shaft are fire partitions or smoke barriers. By consistently saying ‘fire partition’ or ‘smoke barrier’ instead of sometimes saying ‘the lobby enclosure (which would include on wall of the vertical shaft/fire barrier); it should be clear that these are door other than the elevator doors.



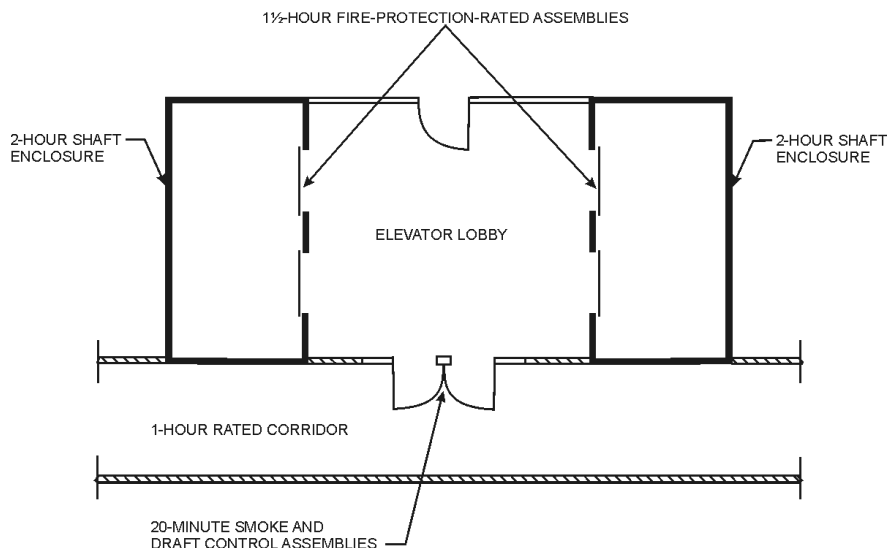
Example of Section 3006.3 Item 3. Example of Section 3006.3 Item 1 or 2

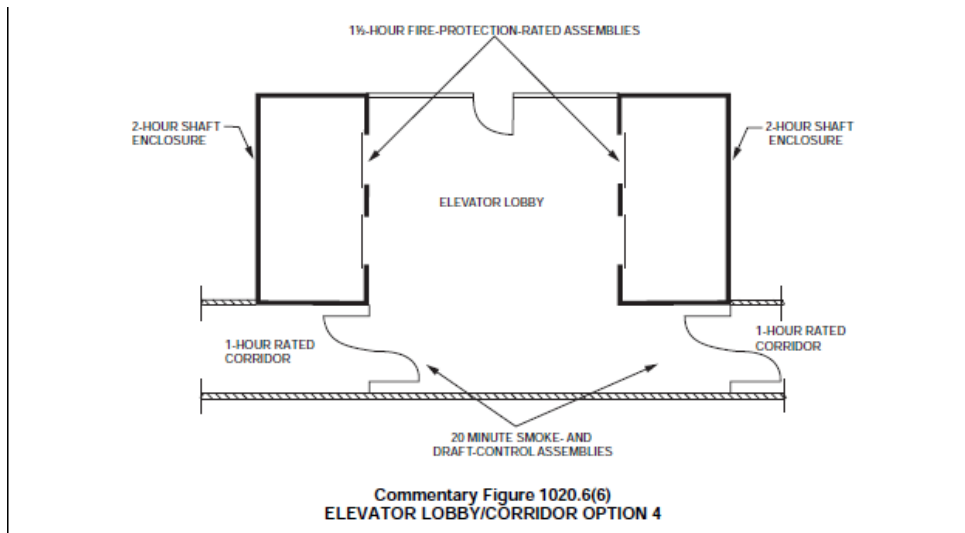
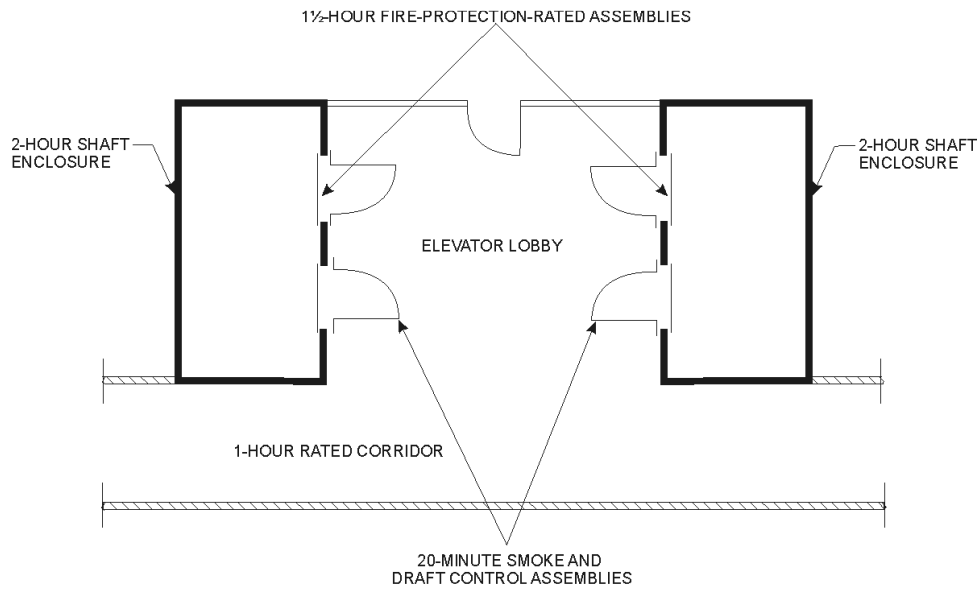
The new exception 5 in Section 716.2.2.1 is to allow for elevators in low rise building to not to have to meet the requirements of opening protectives in both fire barriers and fire partitions. While many elevator hoistway/vertical shaft doors are tested and labeled for the 1-hour or 1½-hour fire resistance rating (see Section 716.2.1), very few, if any of the doors typically sold in the United States will also meet the smoke and draft requirements (see Section 716.2.2.1.1) that would allow them to open directly into a fire-resistance-rated corridor. The elevator could serve either a basements and 2 stories, or three stories. There would not be significant stack effect for the movement of smoke with this minimal allowance. The code currently allows other floor vertical openings in Sections 712 and 1019.3 for four stories. This allowance would make buildings with or without rated corridors have elevator lobbies at the same point.

The change to Section 1020.2.1 is strictly a point to indicate the two different protection requirements for elevators when dealing with a rated corridor.

The added language in Section 708.4.1 is for consistency with Section 709.4.2. If a fire partition forms two or three of the four walls for an elevator lobby, the walls and doors in the shaft should only have to meet the shaft requirements. The same should hold true for the fire access and occupant evacuation elevator lobbies and the connected stairways.

Below are what is currently required in even 2 story building with rated corridors.





**2018 Commentary for 1020.7:**

Another consideration is corridor continuity at an elevator opening. Where an elevator opens into a corridor that is required to be of fire-resistance-rated construction, the opening between the elevator shaft and the corridor must be protected to meet not only the shaft's fire protection rating but also the additional smoke and draft protection requirements necessary to limit the spread of smoke into the corridor (see Sections 716.2.2.1 and 716.2.2.1.1). Because elevator hoistway doors do not typically comply as doors with a 20-minute fire-protection rating with smoke and draft-control assemblies, they would not be able to open directly into a rated corridor. The provisions in Section 3006 that waive the requirements for an elevator lobby (see the commentary to Section 1020.1.1) do not waive the corridor opening protection requirements. Therefore, to maintain the integrity of the corridor, the elevator hoistway shaft doors opening into such rated corridors will need to be separated from the corridor by one of the following methods of protection:

1. A lobby needs to be provided with the appropriate walls and doors [see Commentary Figure 1020.6(4) and Section 3006.3, Items 1 and 2] to separate the lobby from the corridor.
2. Additional doors must be provided at the hoistway [see Commentary Figure 1020.6(5) and Section 3006.3, Item 3] that will protect shaft openings the same as required for corridor doors.



3. An elevator shaft door that meets the fire protection rating and the smoke and draft protection requirements for corridor doors in Sections 716.2.2.1 and 716.2.2.1.1 and the appropriate fire protection rating for shafts [see Table 716.1(2)] must be provided.

4. The corridor must be separated from the lobby [see Commentary Figure 1020.6(6) and Section 3006.3, Items 1 and 2]. Per Exception 2 of Section 1020.6, a fourth option is permitted for corridor continuity since the elevator lobby is also not considered an intervening room. Section 1016.2, Item 1, states that at least one end of a to an exit without going through an elevator lobby. Alternatively, the second means of egress serving the corridor can be an elevator lobby with direct access to an exit [see Commentary Figure 1020.6(3)].

5. The elevator hoistway can be pressurized so that smoke will not move up the shaft (see Section 3006.3, Item 4). While not specifically stated that the fire partition opening protectives are not required, this would be equivalent to providing protection via alternative means.

While many elevator hoistway/vertical shaft doors are tested and labeled for the 1-hour or 1<sup>1</sup>/<sub>2</sub>-hour fire-resistance rating (see Section 716.2.1), very few, if any of the doors typically sold in the United States will also meet the smoke and draft requirements (see Section 716.2.2.1.1) that would allow them to open directly into a fire-resistance-rated corridor. Because of this, Items 1, 2 and 4 will be the general methods for protecting such openings.

For additional explanation of the requirements for elevator lobbies that are adjacent to rated corridors, see Section 3006. For requirements for exit enclosures, see Section 1023.

**Reason:** The smoke and draft control on opening protectives in rated corridors is important on elevator shafts in taller buildings. However, stack effect is not significant in building two, three and four story buildings (with or without basements).

The connection of elevators between levels in taller buildings could not use the exception.

**Cost impact:** Decrease. This option would allow for the elimination of lobbies in low rise buildings with rated corridors.

Notes 11-10-2020: Move forward to FCAC if approved by Egress work group on 11-13-2020 call.

---

## FCAC WG 1.4/BCAC Egress Item 3/General Item 2 Occupied roofs

### Proposal 1

### IBC Table 1006.3.3, 1006.3.4(1), 1006.3.4(2)

#### SECTION 1006 NUMBER OF EXITS AND EXIT ACCESS DOORWAYS

##### 1006.3 Egress from stories or occupied roofs.

The *means of egress* system serving any *story* or occupied roof shall be provided with the number of separate and distinct *exits* or access to *exits* based on the aggregate *occupant load* served in accordance with this section.



**1006.3.1 Occupant load.** Where stairways serve more than one story, or more than one story and an occupied roof, only the occupant load of each story or occupied roof, considered individually, shall be used when calculating the required number of exits or access to exits serving that story.

**1006.3.2 Path of egress travel.** The path of egress travel to an *exit* shall not pass through more than one adjacent *story*.

**Exception:** The path of egress travel to an *exit* shall be permitted to pass through more than one adjacent *story* in any of the following:

1. In Group R-1, R-2 or R-3 occupancies, exit access stairways and ramps connecting four stories or less serving and contained within an individual dwelling unit, sleeping unit or live/work unit.
2. Exit access stairways serving and contained within a Group R-3 congregate residence or a Group R-4 facility.
3. Exit access stairways and ramps within an atrium complying with Section 404.
4. Exit access stairways and ramps in open parking garages that serve only the parking garage.
5. Exit access stairways and ramps serving open-air assembly seating complying with the exit access travel distance requirements of Section 1030.7.
6. Exit access stairways and ramps between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, places of religious worship, auditoriums and sports facilities.
7. Exterior exit access stairways and ramps between occupied roofs.

**1006.3.3 Egress based on occupant load.** Each *story* and occupied roof shall have the minimum number of separate and distinct *exits*, or access to *exits*, as specified in Table 1006.3.3. A single *exit* or access to a single *exit* shall be permitted in accordance with Section 1006.3.4. The required number of *exits*, or *exit access stairways* or *ramps* providing access to *exits*, from any *story* or occupied roof shall be maintained until arrival at the *exit discharge* or a *public way*.

TABLE 1006.3.3

MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS PER STORY OR OCCUPIED ROOF

OCCUPIED LOAD PER STORY	MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS FROM PER STORY OR OCCUPIED ROOF
1-500	2
501-1,000	3
More than 1,000	4

**1006.3.4 Single exits.** A single *exit* or access to a single *exit* shall be permitted from any *story* or occupied roof where one of the following conditions exists:

1. The *occupant load*, number of *dwelling units* and exit access travel distance do not exceed the values in Table 1006.3.4(1) or 1006.3.4(2).
2. Rooms, areas and spaces complying with Section 1006.2.1 with *exits* that discharge directly to the exterior at the *level of exit discharge*, are permitted to have one *exit* or access to a single *exit*.
3. Parking garages where vehicles are mechanically parked shall be permitted to have one *exit* or access to a single *exit*.
4. Group R-3 and R-4 occupancies shall be permitted to have one *exit* or access to a single *exit*.
5. Individual single-story or multistory *dwelling units* shall be permitted to have a single *exit* or access to a single *exit* from the *dwelling unit* provided that both of the following criteria are met:
  - 5.1. The *dwelling unit* complies with Section 1006.2.1 as a space with one *means of egress*.
  - 5.2. Either the *exit* from the *dwelling unit* discharges directly to the exterior at the *level of exit discharge*, or the *exit access* outside the dwelling unit's entrance door provides access to not less than two approved independent *exits*.

TABLE 1006.3.4(1)

STORIES **AND OCCUPIED ROOFS** WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
Basement, first, second or third story above grade plane	R-2 <sup>a, b, c</sup>	4 dwelling units	125 feet
Fourth story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 3048 mm.

NP = Not Permitted.

NA = Not Applicable.

- a. Buildings classified as Group R-2 equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with *emergency escape and rescue openings* in accordance with Section 1031.
- b. This table is used for R-2 occupancies consisting of *dwelling units*. For R-2 occupancies consisting of *sleeping units*, use Table 1006.3.4(2).
- c. This table is for occupied roofs accessed through and serving individual dwelling units in Group R-2 occupancies. For Group R-2 occupancies with occupied roofs that are not access through and serving individual units, use Table 1006.3.4(2).

TABLE 1006.3.4(2)

STORIES **AND OCCUPIED ROOFS** WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES

<b>STORY AND OCCUPIED ROOF</b>	OCCUPANCY	<b>MAXIMUM OCCUPANT LOAD PER STORY AND OCCUPIED ROOF</b>	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
First story above or below grade plane <u>and occupied roofs over the first story above grade plane</u>	A, B <sup>b</sup> , E F <sup>b</sup> , M, U	49	75
	H-2, H-3	3	25
	H-4, H-5, I, R-1, R-2 <sup>a, c</sup>	10	75
	S <sup>b, d</sup>	29	75
Second story above grade plane	B, F, M, S <sup>d</sup>	29	75
Third story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

NA = Not Applicable.

- a. Buildings classified as Group R-2 equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with *emergency escape and rescue openings* in accordance with Section 1030.
- b. Group B, F and S occupancies in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or on the roof of such buildings shall have a maximum *exit access travel distance* of 100 feet.
- c. This table is used for R-2 occupancies consisting of *sleeping units*. For R-2 occupancies consisting of *dwelling units*, use Table 1006.3.3(1).
- d. The length of *exit access travel distance* in a Group S-2 *open parking garage* shall be not more than 100 feet.

**Reason:**

The change to the title and heading in Table 1006.3.3 is for consistency with the text.

The proposed modifications to Section 1006 includes adding 'occupied roofs' to Table 1006.3.4(1) to clarify the conditions in which one exit or access to one exit is allowed for rooftop decks or balconies for individual units in Group R-2 occupancies. Footnote c sends you to other occupancies for shared roof decks because you are now a mixed use occupancy. While the occupied roof is not a story for height and area, the allowance for a single exit is set at the 3<sup>rd</sup> story.

Similarly this proposal adds 'occupied roofs' to Table 1006.3.4(2) to clarify the conditions in which one exit or access to one exit is allowed for the other occupancies, including a shared occupied roof on an apartment building. While Group A, E, H, I, R-1, R-2 and S are limited to a first story with a single exit, allowing for one exit from the roof of these buildings is comparable, and probably safer, to being able to travel up from the basements (which is currently permitted). A proposed modification to footnote b or the table clarifies that the allowable increase in exit access travel distance from 75 feet to 100 feet for properly sprinklered Group B, F and S occupancies also includes the roof area for these uses.

**Cost Impact:**

The code change proposal will not increase or decrease the cost of construction

This proposal provides clarification to a subject that was not previously addressed. The changes to the single occupant tables could allow for one exit stairway from an occupied roof instead of two.

Notes 11-10-2020: Move forward to FCAC after final review by Egress work group on 11-13-2020.

---

---

## FCAC WG 1.4/BCAC Egress Item 3/General Item 2 Occupied roofs – 3 proposals

### Proposal 2A

**1009.2.1 Elevators required.** In buildings where a required *accessible floor* ~~or occupied roof~~ is four or more *stories* above or below a *level of exit discharge* ~~or where an accessible occupied roof is above a story that is three or more stories above the level of exit discharge,~~ not less than one required *accessible means of egress* shall ~~include~~ **be** an elevator complying with Section 1009.4.

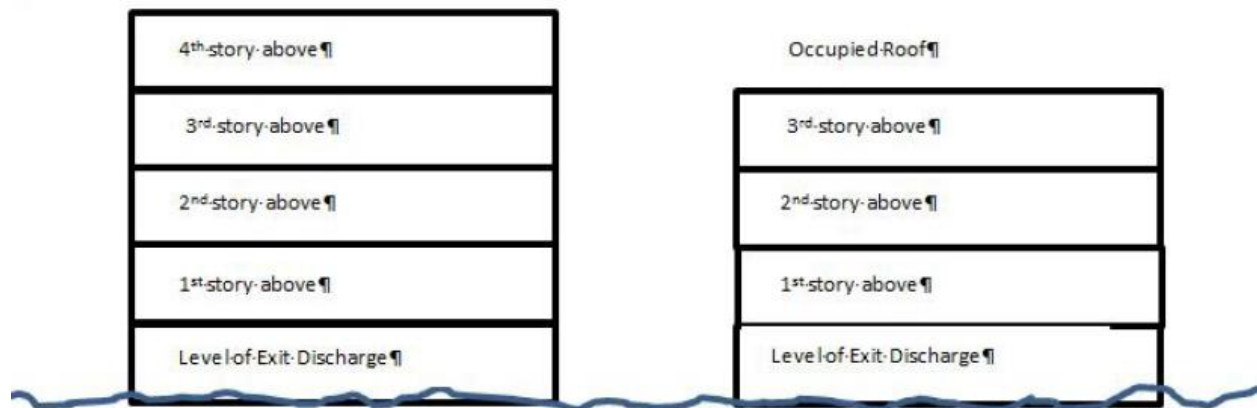
**Exceptions:**

1. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required ~~as part of the accessible means of egress~~ on floors provided with a *horizontal exit* and located at or above the *levels of exit discharge*.
2. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a *ramp* conforming to the provisions of Section 1012.

Reason: The intent of this proposal is a clarification in terminology.

The new language added by E30-18 is confusing. An occupied roof is not a story. Therefore, to be clear, the requirement for an occupied roof should be dealt with separately from the number of stories in a building. It is not the intent of this proposal to change to result of what was voted approved by the MOE Code Development Committee.

It is important to point out that the original change said that there was no fiscal impact. Since the occupied roof is not considered a story for height and area limitations, with the 2018 text, it could have been interpreted that standby power was not required to an occupied roof on a 4 story building. Therefore, this does have a significant cost for a 4 story building that decides to have an occupied roof.



**Height at which standby power would be required on the elevator for accessible MOE**

The addition of “as part of the means of egress” added into the exceptions will clarify this limitation all the exception. The elevator is part of the accessible means of egress, not the only piece. When an elevator is required as part of an accessible means of egress, Section 1009.4 would require standby power.

This is one of a series of three independent proposals for this section. If all three are passed, the result will be this.

**1009.2.1 Elevators required.** In buildings where a required *accessible* floor ~~or occupied roof~~ is four or more *stories* above or below a *level of exit discharge* or where an accessible occupied roof is above a story that is three or more stories above the level of exit discharge, not less than one required *accessible means of egress* shall be an elevator complying with Section 1009.4.

**Exceptions:**

1. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required as part of an accessible means of egress on floors provided with a *horizontal exit* and located at or above the *levels of exit discharge*.
2. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required as part of an accessible means of egress on floors or occupied roofs provided with a *ramp* conforming to the provisions of Section 1012.
3. In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required as part of an accessible means of egress for an occupied roof where the floors located at or above the level of exit discharge are provided with a horizontal exit.

**Cost Impact :** None. This is a clarification of the text and has no technical changes to construction requirements.

## Proposal 2B

**1009.2.1 Elevators required.** In buildings where a required *accessible* floor or occupied roof is four or more *stories* above or below a *level of exit discharge* not less than one required *accessible means of egress* shall be an elevator complying with Section 1009.4.

**Exceptions:**

1. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a *horizontal exit* and located at or above the *levels of exit discharge*.
2. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required as part of an accessible means of egress on floors or occupied roofs provided with a *ramp* conforming to the provisions of Section 1012.

**Reason:** The intent of this proposal is to allow for ramps to serve as an accessible route off an occupied roof instead of requiring standby power on the elevator for that occupied roof. (This is **not** an exception for the accessible route requirements to these spaces in Chapter 11.) Ramps are already permitted to serve as the accessible means of egress for all floors below the roof. E30-18 added that occupied roofs to the main text, but did not add it to the exception. Ramps to all levels is commonly used in parking garages and large stadiums.

The addition of “as part of the means of egress” added into the exceptions will clarify this limitation all the exception. The elevator is part of the accessible means of egress, not the only piece. When an elevator is required as part of an accessible means of egress, Section 1009.4 would require standby power.

This is one of a series of three independent proposals for this section.

**Cost impact:** Decrease. If on occupied roof is provided on a building with ramp access to the levels, such as a parking garage are large sports arena, this revision will clarify that standby power is not required to the elevator.

## Proposal 2C

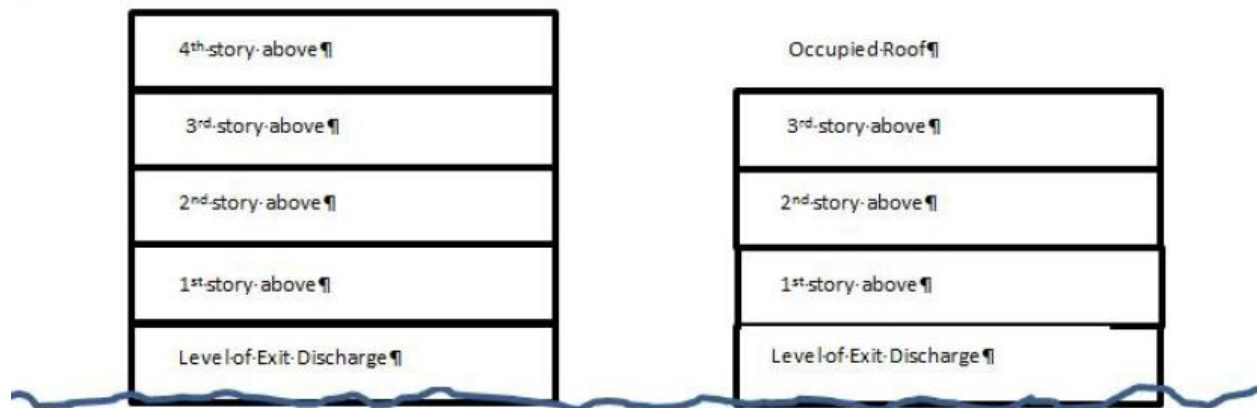
**1009.2.1 Elevators required.** In buildings where a required *accessible* floor or occupied roof is four or more *stories* above or below a *level of exit discharge* not less than one required *accessible means of egress* shall be an elevator complying with Section 1009.4.

### Exceptions:

1. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required as part of an accessible means of egress on floors provided with a *horizontal exit* and located at or above the *levels of exit discharge*.
2. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a *ramp* conforming to the provisions of Section 1012.
3. In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required as part of an accessible means of egress for an occupied roof where the floors located at or above the level of exit discharge are provided with a horizontal exit.

**Reason:** The intent of this proposal is to provide an allowance for building that have a horizontal exit on all floors and an occupied roof.

Code change E30-18 added standby power for a 4 story building that has an occupied roof.



Height at which standby power would be required on the elevator for accessible MOE

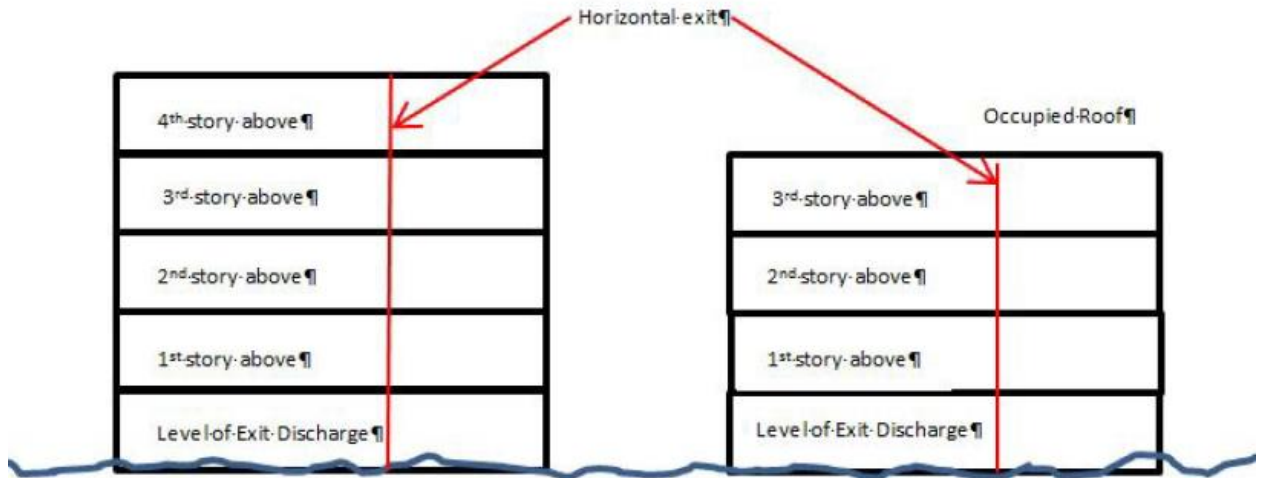
This allowances being asked for is a very minimal exception for standby power to elevators. (This is **not** an exception for the accessible route requirements to these spaces in Chapter 11.) Horizontal exits as an option for elevators to serve as part on an accessible means of egress is already permitted in Exception 1, however, Exception 1 this does not address buildings with occupied roofs.

The new Exception 3 is to allow for buildings that have horizontal exits on all floors below and occupied roof, to not have elevators are part of the accessible means of egress (and then have to add standby power to the elevator) just because there is an occupied roof area. Roofs technically cannot provide horizontal exits because then cannot be subdivided with fire barriers. The purpose of horizontal exits are to provide refuge areas on the floor for protection of occupants from smoke. By being open to the outside air, the occupant on the roof are also protected from smoke.

It is important to note that the purpose of the standby power to the roof is for fire department assisted rescue – not self evacuation. Since the building occupants may not know where the fire is in the building, using the elevator on their own could result in them delivering themselves to the fire location. The fire department could choose to use the elevators for assisted evacuation in any building under fire department recall, so this option is still open. And in a building with horizontal exits, the fire department also has the option to temporarily relocate occupants who cannot use stairways on the occupied roof to a safe area on the floor below rather than needing to transport them all the way out of the building immediately.

The following is a diagram for illustration of this exception.





Exception for occupied roof on a building with a horizontal exit.

This is one of a series of three independent proposals for this section.

**Cost Impact :** The code change proposal will decrease the cost of construction This would be a cost savings for building with horizontal exits by not also requiring standby power to the elevator for just the occupied roof.

Notes 11-10-2020: Move forward to FCAC after final review by Egress work group on 11-13-2020.

---



---

## FCAC WG 1.4/BCAC Egress Item 3/General Item 2 Occupied roofs

### Proposal 3

#### IBC Section 503.1.4

**503.1.4 Occupied roofs.** A roof level or portion thereof shall be permitted to be used as an occupied roof provided the occupancy of the roof is an occupancy that is permitted by Table 504.4 for the story immediately below the roof. The area of the occupied roofs shall not be included in the building area as regulated by Section 506. An occupied roof shall not be included in the building height or number of stories as regulated by Section 504 provided the penthouses and other enclosed roof structures comply with Section 1510.

**Exceptions:**

1. The occupancy located on an occupied roof shall not be limited to the occupancies allowed on the *story* immediately below the roof where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and occupant notification in accordance with Sections 907.5.2.1 and 907.5.2.3 is provided in the area of the occupied roof. Emergency voice/alarm communication system notification per Section



907.5.2.2 shall also be provided in the area of the occupied roof where such system is required elsewhere in the building.

2. Assembly occupancies shall be permitted on roofs of open parking spaces of Type I or Type II construction, in accordance with the exception to Section 903.2.1.6.

**503.1.4.1 Enclosures over occupied roof areas.** Elements or structures enclosing the occupied roof areas shall not extend more than 48 inches (1220 mm) above the surface of the occupied roof.

**Exceptions:**

1. Penthouses constructed in accordance with Section 1510.2 and towers, domes, spires and cupolas constructed in accordance with Section 1510.5.

2. Required guards shall be permitted to be greater than 48 inches above the surface of the occupied roof where the roof deck is located more than 75' above the level of fire department vehicle access.

Reason: The limit on the guard height was based on fire department access to the roof. Once the roof deck is higher than fire ladder access, this is no longer justification for this limitation. There has been concerns that higher guards are needed on higher roofs to prevent people from jumping off the roof deck and/or to allow for wind breaks to limit items blowing off the roof deck and falling on people below.

Cost impact: None. This allows additional design options for guards around roof decks.

Notes 11-10-2020: Move forward to FCAC after final review by Egress work group on 11-13-2020.

---

## **FCAC WG 1.4/BCAC Egress Item 3/General Item 2**

### **Occupied roofs – 2 options**

### **General work group supports Option 2**

#### **Proposal 4**

#### **Option 1**

#### **IBC Section 202**

**[BG] HIGH-RISE BUILDING.** A building with the floor of an occupied ~~floor~~ story located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

**Reason:** The intent of this proposal is to clarify that an occupied roof that is over 75' where the floor is below 75' does not make this building a highrise. Also thinking into the future, changing an unoccupied roof to an occupied roof should not change the building requirements to this extent. An open to the air occupied roof does not increase the hazard the same as a story.

If you make this a highrise what could be added is additional alarm systems requirements, additional requirements for sprinklers, additional special inspections, luminous egress markings in the stairways, a fire command center, standpipes, secondary water supply, smoke detection systems, separation between stairway enclosures, smokeproof enclosures, etc.

This would be consistent with the change to Section 503.1.4 –

**503.1.4 Occupied roofs.** A roof level or portion thereof shall be permitted to be used as an occupied roof provided the occupancy of the roof is an occupancy that is permitted by Table 504.4 for the story immediately below the roof. The area of the occupied roofs shall not be included in the building area as regulated by Section 506. An occupied roof shall not be included

in the building height or number of stories as regulated by Section 504, provided the penthouses and other enclosed roof structures comply with Section 1511.

**Exceptions:**

1. The occupancy located on an occupied roof shall not be limited to the occupancies allowed on the story immediately below the roof where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and occupant notification in accordance with Section 907.5 Sections 907.5.2.1 and 907.5.2.3 is provided in the area of the occupied roof. Emergency voice/alarm communication system notification per Section 907.5.2.2 shall also be provided in the area of the occupied roof where such system is required elsewhere in the building.
2. *(no change to this exception)*

From Chris Reeves:

A floor is a floor & a roof is a roof. Just because a roof is an “occupied” roof, does not make it a floor. The code has had provisions related to adequate egress from “occupied” roofs for years without classifying the roof as an occupancy for purposes of other code issues including height/area limitations, mixed uses, sprinklers or type of construction.

We can't make staff code interpretations on wishful thinking. I'm sure the 75 ft. high-rise limitation probably wasn't thinking about “occupied” roofs when it was established. However, I'm sure if we, as a staff, start saying every “occupied” roof is a floor, there will be plenty of existing buildings which will now become high-rises because they already have “occupied” roofs or want to use them as such in the future.

We can't pick and choose. We have always said that parking of cars on a roof does not constitute a floor, as well as for the basketball court or tennis court on the roof. As long as there is adequate egress off the roof, what is the problem?

If fire department access is the problem, that is why a minimum of one standpipe hose connection needs to be extended to the roof. (Section 905.4 – 2012 IBC)

Other than penthouses, which are considered “roof” mounted structures, the only other specific criteria for roofs are landscaped roofs (Green) which are specifically addressed in Section 317 of the 2012 IFC. Are we prepared to say every landscaped roof is a floor because someone has to maintain the landscaping? I'm sure there are plenty of multi-story buildings wanting to go “green” with landscaped roofs which are now going to be penalized an additional story in order to be below the 75 ft. limitation so as to not be considered a high-rise building.

This code interpretation that I drafted was published in the ICC Building Safety Journal (BSJ) last August, 2019. Again, this is a very controversial issue which some jurisdictions don't agree with but has been a longstanding interpretation dating back to old BOCA International days.

**International Code:** 2015 International Building Code

**Section:** 202

**Question:** Is it the intent of the definition for a high-rise building to include an “occupied” roof when evaluating the 75 foot criteria with respect to the lowest level of fire department vehicle access?

**Answer:** As indicated in the definition for a high-rise building in Section 202 of the 2015 International Building Code (IBC), a building is considered a high-rise when there is an “occupied floor” more than 75 feet above the lowest level of fire department vehicle access. The occupied floor, in this case, was referring to the “occupied floor” of the highest story and not the level of the occupied roof. In general, a floor is a floor and a roof is a roof. Just because a roof is an occupied roof does not make it a floor with respect to the definition of a high-rise building. The code has had provisions related to adequate egress from occupied roofs for years without classifying the roof as an occupancy for purposes of other code issues including height/area limitations, mixed uses, sprinklers or type of construction.

It should be noted, however, that there are new provisions in the 2015 IBC (Section 903.2.1.6) which addresses sprinkler protection due to an occupied roof and in the 2018 IBC (Section 503.1.4) which

address occupied roofs based on the floor immediately below the roof. In both cases, if sprinkler protection is provided throughout the building, whether the roof is an occupied roof has no bearing on height/area limitations, occupancy separation requirements or the classification of the building as a high-rise.

Cost impact: None. The technical criteria for high-rises would not change. This is a clarification.

## Option 2

### IBC Section 202

**[BG] HIGH-RISE BUILDING.** A building with an occupied floor or occupiable roof located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

Reason: There has been the question if an occupiable roof, while not an additional story for height and area limitations, should be subject to high-rise provisions if that occupiable roof was above 75 feet above the lowest level of fire department vehicle access. While an occupiable roof does not constitute an additional story to a building, it can still permit occupants to be located above the level of ground-based fire-fighting personnel for emergency evacuation. Many of these occupiable roofs are used for assembly occupancies which can result in a higher occupant load than lower levels of the building. While it can be considered that occupants on an occupiable roof are at a reduced life safety hazard as they are open to atmosphere, the issue that these occupants cannot be accessed directly by ground-based emergency personnel must be considered.

This change would be expected to affect a relatively low number of buildings that have their highest occupied floor level just below the 75-foot threshold that also happen to have an occupiable roof.

Cost impact: This will increase the cost of construction for the relatively low number of buildings that this change would impact.

Notes 11-10-2020:

Discussion on preferences for the two options.

Move option 2 forward to FCAC – 5-6

Move both options forward to FCAC for comments - 9-2

---

## FCAC WG 1.4/BCAC Egress Item 3/General Item 2

### Occupied roofs

### Proposal 5 (Group B)

IEBC 506, 605, Chapter 10, 1204

Note : COO is also in IBC, IEBC, IFC, IECC

**[A] CHANGE OF OCCUPANCY.** Any of the following shall be considered as a change of occupancy where the current International Building Code requires a greater degree of safety, accessibility, structural strength, fire protection, means of egress, ventilation or sanitation than is existing in the current building or structure:

1. Any change in the occupancy classification of a building or structure

2. Any change in the purpose of, or a change in the level of activity within, a building or structure, including a roof level.
3. A change of use.

## IEBC only

**[A] CHANGE OF USE.** A change in the use of a building or a portion of a building, including a roof level, within the same group classification, for which there is a change in application of the code requirements.

### SECTION 506 CHANGE OF OCCUPANCY

**506.1 Compliance.** A *change of occupancy* shall not be made in any building unless that building is made to comply with the requirements of the *International Building Code* for the use or occupancy. A Changes of occupancy in a building or portion thereof shall be such that the *existing building* is not less complying with the provisions of this code than the *existing building* or structure was prior to the change. Subject to the approval of the code official, a changes of occupancy shall be permitted without complying with all of the requirements of this code for the new occupancy, provided that the new occupancy is less hazardous, based on life and fire risk, than the existing occupancy.

**Exception:** The building need not be made to comply with Chapter 16 of the *International Building Code* unless required by Section 506.4.

**506.1.1 Change in the character of use.** A *change of occupancy* with no change in the classification of occupancy classification shall not be made to any structure that will subject the structure to any special provisions of the applicable *International Codes*, without approval of the *code official*. Compliance shall be only as necessary to meet the specific provisions and is not intended to require the entire building be brought into compliance.

### SECTION 1002 SPECIAL USE AND OCCUPANCY

**1002.1 Compliance with the building code.** Where an *existing building* or part of an *existing building*, including a roof level, undergoes a change of occupancy to one of the special use or occupancy categories as described in Chapter 4 in the *International Building Code*, the building shall comply with all of the requirements of Chapter 4 of the *International Building Code* applicable to the special use or occupancy:

### SECTION 1011 CHANGE OF OCCUPANCY CLASSIFICATION

**1011.1 General.** The provisions of this section shall apply to buildings or portions thereof, including a roof level, undergoing a change of occupancy classification. This includes a change of occupancy classification within a group as well as a change of occupancy classification from one group to a different group or where there is a *change of occupancy* within a space where there is a different fire protection system threshold requirement in Chapter 9 of the *International Building Code*. Such buildings shall also comply with Sections 1002 through 1010 of this code.

### SECTION 1204 CHANGE OF OCCUPANCY

**1204.1 General.** *Historic buildings* undergoing a *change of occupancy* shall comply with the applicable provisions of Chapter 10, except as specifically permitted in this chapter. Where Chapter 10 requires compliance with specific requirements of Chapter 7, Chapter 8 or Chapter 9 and where those requirements are subject to the exceptions in Section 1202, the same exceptions shall apply to this section.

Reason: The purpose of the change is to clarify that a change from an unoccupied roof to an occupied roof, or how an occupied roof is used, will be considered a change in occupancy.

Typically a change of occupancy is evaluated inside a building. What will happen if someone changes an unoccupied roof to an occupied roof.

Cost impact: None. This is a clarification of when COO would be applicable to roofs.

Notes 11-10-2020: This is Group B change. Move to IEBC work group.