

**CTC Open Stairways**  
**Study Group Report of CTC Meeting June 28-29, 2012**  
**Possible Public Comments**  
**E2, E3, E4, E137**

## CTC Open Stairway Study Group

### **E2-12(AS) PART III – INTERNATIONAL FIRE CODE**

Public comments request approved as modified

Further modify proposal as follows:

#### **IFC CHAPTER 5 FIRE SERVICE FEATURES**

#### **IFC SECTION 508 (IBC [F] 911) FIRE COMMAND CENTER**

**IFC 508.1.5 (IBC [F] 911.1.5) Required features.** The fire command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system control unit.
2. The fire department communications system.
3. Fire detection and alarm system annunciator.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air distribution systems.
6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking ~~interior-exit~~ *stairway* doors simultaneously.
8. Sprinkler valve and waterflow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, *means of egress*, fire protection systems, fire-fighting equipment and fire department access and the location of *fire walls, fire barriers, fire partitions, smoke barriers* and smoke partitions.
13. An approved Building Information Card that contains, but is not limited to, the following information:
  - 13.1 General building information that includes: property name, address, the number of floors in the building (above and below grade), use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor), estimated building population (i.e., day, night, weekend);
  - 13.2 Building emergency contact information that includes: a list of the building's emergency contacts (e.g., building manager, building engineer, etc.) and their respective work phone number, cell phone number, email address;
  - 13.3 Building construction information that includes: the type of building construction (e.g., floors, walls, columns, and roof assembly);
  - 13.4 *Exit access and exit stairway* information that includes: number of *exit access and exit stairway* in building, each *exit access and exit stairway* designation and floors served, location where each *exit access and exit stairway* discharges, interior *exit stairways* that are pressurized, *exit stairways* provided with emergency lighting, each *exit stairways* that

- allows reentry, *exit stairways* providing roof access; elevator information that includes: number of elevator banks, elevator bank designation, elevator car numbers and respective floors that they serve, location of elevator machine rooms, location of sky lobby, location of freight elevator banks;
- 13.5 Building services and system information that includes: location of mechanical rooms, location of building management system, location and capacity of all fuel oil tanks, location of emergency generator, location of natural gas service;
  - 13.6 Fire protection system information that includes: locations of standpipes, location of fire pump room, location of fire department connections, floors protected by automatic sprinklers, location of different types of sprinkler systems installed (e.g., dry, wet, pre-action, etc.);
  - 13.7 Hazardous material information that includes: location of hazardous material, quantity of hazardous material.
14. Work table.
  15. Generator supervision devices, manual start and transfer features.
  16. Public address system, where specifically required by other sections of this code.
  17. Elevator fire recall switch in accordance with ASME A17.1.
  18. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.

**Reason:** The modification to IFC Section 508.1.5 (IBC 911.1.5) Item 7 is due to a concern brought up by one of the Means of Egress Code Development committee regarding possible fire department access requirement from exterior exit stairways when dealing with locked exit stairway doors. The proposal is to not add the words "interior exit" so that the requirement for unlocking would be the same for interior exit stairways as exterior exit stairways.

## E3-12(D)

**Public comments request approved as modified**

**Replace the proposal with the following:**

**EXIT ACCESS DOORWAY.** A door or ~~access point~~ doorway along the path of egress travel from an occupied room, area or space where ~~such the~~ path of egress travel enters an intervening room, or corridor, ~~exit access stairway or exit access ramp~~.

**EXIT ACCESS POINT.** A point along the path of egress travel from an occupied room, area or space where such path of egress travel enters an exit access stairway or exit access ramp.

**Also:**

### **SECTION 1015 EXITS, ~~AND~~ EXIT ACCESS DOORWAYS AND EXIT ACCESS POINTS**

**1015.1 Exits, ~~or~~ exit access doorways or exit access points from spaces.** Two exits, ~~or~~ exit access doorways or exit access points from any space shall be provided where one of the following conditions exists:

1. The occupant load of the space exceeds one of the values in Table 1015.1.

**Exceptions:**

1. In Group R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

2. Care suites in Group I-2 occupancies complying with Section 407.4.
2. The common path of egress travel exceeds one of the limitations of Section 1014.3.
3. Where required by Section 1015.3, 1015.4, 1015.5, or 1015.6.

Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.

**TABLE 1015.1  
SPACES WITH ONE EXIT, ~~OR~~  
EXIT ACCESS DOORWAY OR EXIT ACCESS POINT**

OCCUPANCY	MAXIMUM OCCUPANT LOAD
A, B, E, F, M, U	49
H-1, H-2, H-3	3
H-4, H-5, I-1, I-2, I-3, I-4, R	10
S	29

**1015.1.1 Three or more exits, ~~or~~ exit access doorways or exit access points.** Three exits, ~~or~~ exit access doorways or exit access points shall be provided from any space with an occupant load of 501 to 1,000. Four exits, ~~or~~ exit access doorways or exit access points shall be provided from any space with an occupant load greater than 1,000.

**1015.2 Exit, ~~or~~ exit access doorway or exit access point arrangement.** Required exits shall be located in a manner that makes their availability obvious. Exits shall be unobstructed at all times. Exits, ~~and~~ exit access doorways and exit access points shall be arranged in accordance with Sections 1015.2.1 and 1015.2.2.

**1015.2.1 Two exits, ~~or~~ exit access doorways or exit access points.** Where two exits, ~~or~~ exit access doorways or exit access points are required from any portion of the exit access, the exit doors, ~~or~~ exit access doorways or exit access points shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between exit doors, ~~or~~ exit access doorways or exit access points. Interlocking or scissor stairs shall be counted as one exit stairway.

**Exceptions:**

1. Where interior exit stairways are interconnected by a 1-hour fire-resistance-rated corridor conforming to the requirements of Section 1018, the required exit separation shall be measured along the shortest direct line of travel within the corridor.
2. Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the exit doors, ~~or~~ exit access doorways or exit access points shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.

**1015.2.2 Three or more exits, ~~or~~ exit access doorways or exit access points.** Where access to three or more exits, ~~doors~~ ~~or~~ exit access doorways or exit access points is required, at least two exit doors, ~~or~~ exit access doorways or exit access points shall be arranged in accordance with the provisions of Section 1015.2.1.

**1015.3 Boiler, incinerator and furnace rooms.** Two exits, exit access doorways or exit access points are required in boiler, incinerator and furnace rooms where the area is over 500 square feet (46 m<sup>2</sup>) and any fuel-fired equipment exceeds 400,000 British thermal units (Btu) (422 000 KJ) input capacity. Where two exits, exit access doorways or exit access points are required, one is permitted to be a fixed ladder or

an alternating tread device. Exits, exit access doorways or exit access points shall be separated by a horizontal distance equal to one-half the length of the maximum overall diagonal dimension of the room.

**1015.4 Refrigeration machinery rooms.** Machinery rooms larger than 1,000 square feet (93 m<sup>2</sup>) shall have not less than two exits, or exit access doorways or exit access points. Where two exits, exit access doorways or exit access points are required, one such exit, exit access doorway or exit access point is permitted to be served by a fixed ladder or an alternating tread device. Exits, exit access doorways or exit access points shall be separated by a horizontal distance equal to one-half the maximum horizontal dimension of room.

All portions of machinery rooms shall be within 150 feet (45 720 mm) of an exit, or exit access doorway or exit access point. An increase in travel distance is permitted in accordance with Section 1016.1.

Doors shall swing in the direction of egress travel, regardless of the occupant load served. Doors shall be tight fitting and self-closing.

**1015.5 Refrigerated rooms or spaces.** Rooms or spaces having a floor area larger than 1,000 square feet (93 m<sup>2</sup>), containing a refrigerant evaporator and maintained at a temperature below 68°F (20°C), shall have access to not less than two exits, or exit access doorways or exit access points.

Travel distance shall be determined as specified in Section 1016.1, but all portions of a refrigerated room or space shall be within 150 feet (45 720 mm) of an exit, or exit access door or exit access point where such rooms are not protected by an approved automatic sprinkler system. Egress is allowed through adjoining refrigerated rooms or spaces.

**Exception:** Where using refrigerants in quantities limited to the amounts based on the volume set forth in the International Mechanical Code.

**1015.6 Day care means of egress.** Day care facilities, rooms or spaces where care is provided for more than 10 children that are 2-1/2 years of age or less, shall have access to not less than two exits, or exit access doorways or exit access points.

**Reason:** This public comment is intended to clarify how to accurately determine numbers of required exits or access to exits from spaces and exit/exit access configuration. The original E4-12 proposal took too broad an approach in that it eliminated the term "exit access doorway" in favor of the term "exit access point." This public comment preserves the current definition of exit access doorway, except to eliminate reference to exit access stairways and exit access ramps. Those terms are independently defined in the IBC and need not be included in the definition of exit access doorway. A new term "exit access point" is created for purposes of technical clarification. The term is integrated into Section 1015 and helps to indicate what combination of means of egress components may be used to satisfy the various requirements contained in that section. This proposal clarifies these fundamental requirements and will assist design professionals and code enforcement officials in the proper determination of the required numbers of exits or access to exits from individual spaces as well as exit/exit access configuration provisions.

## E4(D)

### Public comments request approved as modified

#### Modify the proposal as follows:

**EXIT ACCESS RAMP.** A ramp along the path of egress travel within the exit access portion of the means of egress system that is not a required ~~interior or exterior~~ exit ramp.

**EXIT ACCESS STAIRWAY.** A stairway along the path of egress travel within the exit access portion of the means of egress system that is not a required ~~interior or exterior~~ exit stairway.

**Reason:** During discussion of Item E4-12 at the 2012 ICC code development hearings in Dallas, TX, it was noted that the proposed definitions for "exit access stairway" and "exit access ramp" could include steps in the exit discharge portion of the means of egress system. The definitions have been clarified to indicate that exit access stairways and ramps occur within the exit access portion of the means of egress system. Given that the formal technical relationship between exit access stairways and ramps and interior exit

stairways and ramps has been established in the 2012 Edition of the IBC, it is important that these key definitions accurately describe their role in the proper design of a means of egress system. Approval of this public comment will provide necessary clarification to these fundamental means of egress provisions. This would coordinate with E5-09/10 and E7-12.

## E137(D)

**Public comments request approved as modified**

**Replace the proposal with the following:**

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

**1022.2 Where required.** Interior exit stairways and ramps shall be included, as necessary, to meet one or more means of egress design requirements, such as required number of exits or exit access travel distance.

~~1022.2~~ **1022.3 Construction.** All interior exit stairways shall be enclosed. Enclosures for interior exit stairways and ramps shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. Interior exit stairway and ramp enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more and not less than 1 hour where connecting less than four stories. The number of stories connected by the interior exit stairways or ramps shall include any basements, but not any mezzanines. Interior exit stairways and ramps shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours.

**Exception:** Interior exit stairways and ramps in Group I-3 occupancies in accordance with the provisions of Section 408.3.8.

(renumber remaining)

**Reason:** This public comment is intended to correct an inadvertent error of omission with Item E7-12 that was approved as modified during the 2012 ICC code development hearings in Dallas, TX. E7-12 was intended to clarify and refine the provisions of Item E5-09/10 that was approved for inclusion in the 2012 IBC. E7-12 relocated the technical requirements for exit access stairways from Section 1009.3 to a new Section 1018. It also removed the provisions of Section 1009.2 applicable to interior exit stairways; however, failed to relocate them in Section 1022.

This oversight was discovered during the discussion of Item E137-12 at the Dallas code development hearings. The following language is currently contained in Section 1009.2 of the 2012 IBC.

**1009.2 Interior exit stairways.** Interior exit stairways shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1023, except as permitted in Section 1027.1.

**1009.2.1 Where required.** Interior exit stairways shall be included, as necessary, to meet one or more means of egress design requirements, such as required number of exits or exit access travel distance.

**1009.2.2 Enclosure.** All interior exit stairways shall be enclosed in accordance with the provisions of Section 1022.

These inadvertently deleted provisions have been placed in proper technical context in Section 1022. Approval of this public comment will restore necessary charging language for the enclosure of interior exit stairways and ramps in the 2015 Edition of the IBC.