2018
BCAC EGRESS WG
PROPOSED
CODE
CHANGES
E13-18
IBC: 1006.2.2, (IFC[BE] 1006.2.2)

Proponent: Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@iccsafe.org)

2018 International Building Code

Revise as follows:

1006.2.2 Egress based on use. The numbers, types and locations of exits or access to exits shall be provided in the uses described in Sections 1006.2.2.1 through 1006.2.2.6.

Reason:
The subsections of 1006.2.2 includes not only the number of exits and exit access doorways, but also requirements regarding the exit and exit access doors, types of exit access, and their locations. This provides clarity in the scoping of this section.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

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

This proposal is a clarification reminder of the scope of requirements included in the identified sections.

Internal ID: 447
Add new text as follows:

**1006.2.2.4 Electrical rooms.** The location and number of exit or exit access doorways shall be provided for electrical rooms in accordance with Section 110.26 of NFPA 70 for electrical equipment rated 1000V or less, and Section 110.33 of NFPA 70 for electrical equipment rated over 1000V. Panic hardware shall be provided where required in accordance with Section 1010.110.1.

**Reason:**
Section 1006.2.2 provides the specific requirements for the numbers, types, and locations of exits or access to exits for specific uses. Requirements are already provided in Section 1006.2.2.1 for boiler, incinerator and furnace rooms, which is based on the ASME Boiler and Pressure Vessel Code, and Section 1006.2.2.2 for refrigeration machinery rooms, which is based on ASHRAE 15.

The requirements for egress for electrical rooms are not currently addressed in this code, except for where panic or fire exit hardware is used in Section 1010.1.10, which does not provide direction on how many or where the exits or exit access doorways are to be located.

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**Cost Impact**
The code change proposal will not increase or decrease the cost of construction.

Chapter 27 of the IBC already requires electrical installations to comply with the provisions of NFPA 70. This proposal specifically directs the code user to the applicable requirements for electrical rooms in NFPA 70.

Internal ID: 448
IBC: SECTION 1010, (IFC[BE] 1010)

Proponent: Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@iccsafe.org)

2018 International Building Code

Revise as follows:

SECTION 1010 DOORS, GATES AND TURNSTILES

1010.1 Doors. Doors in the means of egress shall comply with the requirements of Sections 1010.1.1 through 1010.1.3.4. Exterior exit doors shall meet also comply with the requirements of this section. Doors serving as Section 1022.2. Gates in the means of egress shall comply with the requirements of Section 1010.4 through 1010.4.1. Turnstiles in the means of egress system shall meet comply with the requirements of this section and Section 1022.2. Doors provided for egress purposes in numbers greater than required by this code shall meet comply with the requirements of this section.

Doors in the means of egress doors shall be readily distinguishable from the adjacent construction and finishes such that the doors are easily recognizable as doors. Mirrors or similar reflecting materials shall not be used on means of egress doors. Means of egress doors shall not be concealed by curtains, drapes, decorations or similar materials.

1010.1.1 Size of doors. (No change to text)

1010.1.1.1 Projections into clear width. (No change to text)

1010.1.2 Door swing. (No change to text)

1010.1.2.1 Direction of swing. (No change to text)

1010.1.3 Door opening force. (No change to text)

1010.1.3.1 Location of applied forces. (No change to text)

1010.1.4 Floor elevation. (No change to text)

1010.1.5 Landings at doors. (No change to text)

1010.1.6 Thresholds. (No change to text)

1010.1.7 Door arrangement. (No change to text)

1010.1.8 Door operations. (No change to text)

1010.1.9 Unlatching. (No change to text)

1010.1.9.1 Hardware. (No change to text)

1010.1.9.2 Hardware height. (No change to text)

1010.1.9.3 Locks and latches. (No change to text)

1010.1.9.4 Bolt locks. (No change to text)

1010.1.9.5 Closet doors. (No change to text)

1010.1.9.6 Stairway doors. (No change to text)

1010.1.9.7 Locking arrangements in educational occupancies. In Group E and Group B educational occupancies, egress doors from classrooms, offices and other occupied rooms shall be permitted to be provided with locking arrangements designed to keep intruders from entering the room where all of the following conditions are met:
1. The door shall be capable of being unlocked from outside the room with a key or other approved means.
2. The door shall be openable from within the room in accordance with Section 1010.1.9.
3. Modifications shall not be made to listed panic hardware, fire door hardware or door closers.

1010.1.4.4 1010.10.2.8.1 Remote operation of locks. (No change to text)

1010.1.10 1010.2.9 Panic and fire exit hardware. (No change to text)

1010.1.10 1010.2.9.1 Installation. (No change to text)

1010.1.10.2 1010.2.9.2 Balanced doors. (No change to text)

1010.1.9.3 1010.2.10 Monitored or recorded egress. (No change to text)

1010.1.9.10 1010.2.11 Door hardware release of electrically locked egress doors. (No change to text)

1010.1.9.9 1010.2.12 Sensor release of electrically locked egress doors. (No change to text)

1010.1.9.8 1010.2.13 Delayed egress. (No change to text)

1010.1.9.8.1 1010.2.13.1 Delayed egress locking system. (No change to text)

1010.1.9.7 1010.2.14 Controlled egress doors in Groups I-1 and I-2. (No change to text)

1010.1.9.11 1010.2.15 Locking arrangements in buildings within correctional facilities. (No change to text)

1010.1.4 1010.3 Special doors. (No change to text)

1010.1.4.1 1010.3.1 Revolving doors. (No change to text)
<table>
<thead>
<tr>
<th>REVOLVING DOOR MAXIMUM NOMINAL DIAMETER (FT-IN)</th>
<th>MAXIMUM ALLOWABLE REVOLVING DOOR SPEED (RPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-0</td>
<td>12</td>
</tr>
<tr>
<td>7-0</td>
<td>11</td>
</tr>
<tr>
<td>8-0</td>
<td>10</td>
</tr>
<tr>
<td>9-0</td>
<td>9</td>
</tr>
<tr>
<td>10-0</td>
<td>8</td>
</tr>
</tbody>
</table>
For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.
### TABLE 1010.1.4.11010.3.1(2)
MAXIMUM DOOR SPEED AUTOMATIC OR POWER-OPERATED REVOLVING DOORS

<table>
<thead>
<tr>
<th>REVOLVING DOOR MAXIMUM NOMINAL DIAMETER (FT-IN)</th>
<th>MAXIMUM ALLOWABLE REVOLVING DOOR SPEED (RPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-0</td>
<td>7.2</td>
</tr>
<tr>
<td>9-0</td>
<td>6.4</td>
</tr>
<tr>
<td>10-0</td>
<td>5.7</td>
</tr>
<tr>
<td>11-0</td>
<td>5.2</td>
</tr>
<tr>
<td>12-0</td>
<td>4.8</td>
</tr>
<tr>
<td>12-6</td>
<td>4.6</td>
</tr>
<tr>
<td>14-0</td>
<td>4.1</td>
</tr>
<tr>
<td>16-0</td>
<td>3.6</td>
</tr>
<tr>
<td>17-0</td>
<td>3.2</td>
</tr>
<tr>
<td>18-0</td>
<td>2.9</td>
</tr>
<tr>
<td>20-0</td>
<td>2.4</td>
</tr>
<tr>
<td>24-0</td>
<td>2.4</td>
</tr>
</tbody>
</table>
For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

1010.1.4.1.1 Egress component. (No change to text)

1010.1.4.1.2 Other than egress component. (No change to text)

1010.1.4.2 Power-operated doors. (No change to text)

1010.1.4.3 Special purpose horizontal sliding, accordion or folding doors. (No change to text)

1010.1.4.4 Security grilles. (No change to text)

1010.2 Gates. (No change to text)

1010.2.1 Stadiums. (No change to text)

1010.3 Turnstiles and similar devices. (No change to text)

1010.3.1.1 Capacity. (No change to text)

1010.3.1.2 Clear width. (No change to text)

1010.3.2 Security access turnstiles. (No change to text)

1010.3.3 High turnstile. (No change to text)

1010.3.4 Additional door. (No change to text)

**Reason:**
This is a reorganization of the door section to group like items together. There is not intended to be any technical changes.

Start in 1010.1 by recognizing that this section covers doors, gates and turnstiles. Clean up the reference to Section 1022.2 to be more specific.

List all door requirements - 1010.1.1 through 1010.1.7

Separate out door hardware requirements from the doors themselves - new section 1010.2

Relocate unlatching as generic requirement to beginning of hardware section - relocate to 1010.2.1

Group hardware requirements - height, monitoring, locks, bolt locks, sensor release, door hardware release

Group requirements for special safety concerns - closets, stairways, locking in schools, panic hardware. (The school criteria is currently under specials doors - this is definitely a locking criteria. With the new location, Item 2 is not needed).

Moved all the electrical locking arrangements (other than I-3 correctional facilities) to be next to each other, and ordered from most common to least common. Put the monitored or recorded egress section prior to these 4 electrical locking sections because monitored or recorded egress would almost exclusively be used with one of the electrical locking arrangements.

Group Special doors: revolving, power operated, horizontal sliding security grills - new section 1010.3

Renumber gates and turnstiles.

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**Cost Impact**
The code change proposal will not increase or decrease the cost of construction.

This proposal reorganizes Section 1010 to provide clarity for the code user for the requirements for doors and door hardware. There are no technical changes to Section 1010.
E64-18
IBC: 1010.1.10, 1010.1.10.1 (New), (IFC[BE] 1010.1.10, 1010.1.10.1 (New))

Proponent: Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@iccsafe.org)

2018 International Building Code

Revise as follows:

1010.1.10 Panic and fire exit hardware. Swinging doors serving a Group H occupancy and swinging doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock other than panic hardware or fire exit hardware.

Exceptions:

1. A main exit of a Group A occupancy shall be permitted to have locking devices in accordance with Section 1010.1.9.4, Item 2.
2. Doors provided with panic hardware or fire exit hardware and serving a Group A or E occupancy shall be permitted to be electrically locked in accordance with Section 1010.1.9.9 or 1010.1.9.10.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide, and that contain overcurrent devices, switching devices or control devices with exit or exit access doors, shall be equipped with panic hardware or fire exit hardware. The doors shall swing in the direction of egress travel.

Add new text as follows:

1010.1.10.1 Rooms with electrical equipment. Exit or exit access doors serving transformer vaults, rooms designated for batteries or energy storage systems, or modular data centers shall be equipped with panic hardware or fire exit hardware. Where rooms contain electrical rooms with equipment rated 800 amperes or more that contain overcurrent devices, switching devices or control devices, shall be equipped with panic hardware or fire exit hardware. The doors shall swing in the direction of egress travel.

Reason:
The current requirements in the International Building Code are not in alignment with the requirements in NFPA 70, the National Electrical Code. Section 110.26(C)(3) requires where there are exit or exit access doors serving a room with electrical equipment rated 800 amperes or more those doors shall be equipped with listed panic hardware. Equipment rated 1200 amperes or more is used to determine the number and locations of exits or exit access doorways, which is addressed in Section 1006.2.2. Also, NFPA 70 for transformer vaults (in Sections

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

Chapter 27 of the IBC already requires electrical installations to comply with the provisions of NFPA 70. This proposal aligns the requirements in the IBC with NFPA 70.

Internal ID: 449
2018 International Building Code

404.9 Exit access travel distance. Exit access travel distance for areas open to an atrium shall comply with the requirements of this section.

404.9.1 Egress not through the atrium. Where required access to the exits is not through the atrium, exit access travel distance shall comply with Section 1017.

404.9.2 Exit access travel distance at the level of exit discharge. Where the path of egress travel is through an atrium space, exit access travel distance at the level of exit discharge shall be determined in accordance with Section 1017.

Revise as follows:

404.9.3 Exit access travel distance at other than the level of exit discharge. Where the path of egress travel is not at the level of exit discharge from the atrium, that portion of the total permitted exit access travel distance that occurs within the atrium shall be not greater than 200 feet (60 960 mm). Exit access travel distance shall be measured in accordance with Sections 1006.3.1 and 1017.3.

404.10 Interior exit stairways. Not greater than 50 percent of interior exit stairways are permitted to egress through an atrium on the level of exit discharge in accordance with Section 1028.

CHAPTER 10 MEANS OF EGRESS

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. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required number of exits or access to exits serving that story.

1006.3.1 Adjacent story. 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 the provisions of 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 1029.7.
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.

1017.3 Measurement. Exit access travel distance shall be measured from the most remote point of each room, area or space along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an exit.

Exceptions:

1. Within atriums, exit access travel distance is permitted to be measured to the closest riser of an exit access stairway or the closest slope of an exit access ramp.
2. In open parking garages, exit access travel distance is permitted to be measured to the closest riser of an exit access stairway or the closest slope of an exit access ramp.
1017.3.1 Exit access stairways and ramps. Travel distance on exit access stairways or ramps shall be included in the exit access travel distance measurement. The measurement along stairways shall be made on a plane parallel and tangent to the stair tread nosings in the center of the stair and landings. The measurement along ramps shall be made on the walking surface in the center of the ramp and landings.

1023.2 Construction. 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 711, 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.

Exceptions:

1. Interior exit stairways and ramps in Group I-3 occupancies in accordance with the provisions of Section 408.3.8.
2. Interior exit stairways within an atrium enclosed in accordance with Section 404.6.

Reason:
The membership approved E139-12 (AS) which added the allowance for a stairway within an atrium to be considered an exit stairway into Section 1023.2. There is confusion where an atrium is called an exit stairway – how to measure travel distance, what could be in the atrium, if you could travel through an atrium to get to an exit stairway. Section 1019.3 states that open stairways in atriums is an ‘exit access stairway’, so the same stairway is currently called two different things in the code.
The intent of this proposal is to call the open stairway in the atrium an exit access stairway to be consistent with the terminology in Section 1019.3, Item 3.
The revision to Section 404.8.3 is a pointer for where exit access travel distance within an atrium includes travel down an exit access stairway. The revision to Sections 1006.3.1 and 1017.3 are to measure exit access travel distance in a manner that would be consistent with the using the open stairway as a required means of egress off a story consistent with if this stairway was an exit off the floor. The smoke protection provisions for atrium in Section 404 would have to be in place to be able to use this allowance as a required means of egress.
The BCAC also has a proposal to reformat the atrium requirements. If both changes pass, there will be no conflicts. The references to the location of requirements can be correlated.

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

This proposal is effectively codifying the intent to allow the use of open stairways within an atrium “as if” they are in an exit enclosure due to the enhanced safety that exists within an atrium that complies with all the requirements of IBC Section 404, without applying all the other limitations that exist for an exit enclosure elsewhere in the code.

Internal ID: 452
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. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required number of exits or access to exits serving that story.

Delete without substitution:

Adjacent story. 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 in open parking garages that serve only the parking garage.
4. Exit access stairways and ramps serving open-air assembly seating complying with the exit access travel distance requirements of Section 1029.7.
5. 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.

Reason:
The current list of exceptions allows for exit access stairways within 5 of the 8 options to use travel distance without a story limitation (individual dwelling units(#2), Group R-3 and R-4 congregate residences(#3), open parking garages(#6), open air seating(#7) and balconies(#8)). The 3 options currently limited to one story are the 2 story configuration (#1), water curtains around stairways opening (#4) and atriums (#5). These exceptions were added to the code by E27-15.

Travel distance, rather than stories should be the controlling factor. There would be no impact on two story configurations. Deletion of the requirement would allow for exit access travel distance to be measured down the open exit access stairway, regardless of the number of stories. This would now include open exit access stairways that use water curtains around stairways opening (#4) and atriums with smoke protection (#5). With the removal of the limitation for one story, none of the exceptions are needed.

This would be consistent with the BCAC proposal to revise measurement for travel distance along open exit access stairways in atriums.

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Cost Impact
The code change proposal will decrease the cost of construction.

This will reduce the cost in those situations where an enclosure would have been required for the stairway in buildings with more than two stories.
**2018 International Building Code**

Revise as follows:

**1006.3.3 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 common path of egress exit access travel distance do not exceed the values in Table 1006.3.3(1) or 1006.3.3(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>
<thead>
<tr>
<th>STORY</th>
<th>OCCUPANCY</th>
<th>MAXIMUM NUMBER OF DWELLING UNITS</th>
<th>MAXIMUM COMMON PATH OF EGRESS EXIT ACCESS TRAVEL DISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basement, first second or third story above grade plane</td>
<td>R-2²,a,b</td>
<td>4 dwelling units</td>
<td>125 feet</td>
</tr>
<tr>
<td>Fourth story above grade plane and higher</td>
<td>NP</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
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 1030.

b. This table is used for R-2 occupancies consisting of dwelling units. For R-2 occupancies consisting of sleeping units, use Table 1006.3.3(2).
<table>
<thead>
<tr>
<th>STORY</th>
<th>OCCUPANCY</th>
<th>MAXIMUM OCCUPANT LOAD PER STORY</th>
<th>MAXIMUM COMMON PATH-OF-EGRESS EXIT ACCESS TRAVEL DISTANCE (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First story above or below grade plane</td>
<td>A, B&lt;sup&gt;b&lt;/sup&gt;, E&lt;sup&gt;f&lt;/sup&gt;, M, U</td>
<td>49</td>
<td>75</td>
</tr>
<tr>
<td>H-2, H-3</td>
<td></td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>H-4, H-5, I, R-1, R-2&lt;sup&gt;a&lt;/sup&gt;, c</td>
<td>10</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>s&lt;sup&gt;b, d&lt;/sup&gt;</td>
<td>29</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Second story above grade plane</td>
<td>B, F, M, S&lt;sup&gt;d&lt;/sup&gt;</td>
<td>29</td>
<td>75</td>
</tr>
<tr>
<td>Third story above grade plane and higher</td>
<td>NP</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
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 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:
There is a conflict in terminology used for single exit criteria for stories/buildings in the IBC Section/Tables 1006.3.3 and IEBC Section/Tables 805.3.1.1. The intent of this proposal is a clarification, without technical revisions.

Below is the definition for common path of egress travel and exit access and a graphic from the IBC commentary illustrating the terms. Single exit stories/buildings cannot have a common path of egress travel since two exits are not required. The correct term is “exit access travel distance”. This would match the terminology in the column headings for single exit tables with the footnotes for the single exit tables in the IBC and the table heading and footnotes in the IEBC.

If you look at the history for the single exit tables, until the reorganization that combined single exit spaces and stories, the term used was ‘exit access travel distance.’

With the text incorrectly used in IBC Section 1006.3.3, it could be interpreted that the travel distance has to be to a place where there are two exits - which is on the ground floor - regardless if the stairway is an exit access or exit stairway. Exit access travel distance should stop at the door to the exit stairway.

COMMON PATH OF EGRESS TRAVEL. That portion of the exit access travel distance measured from the most remote point within a story to that point where the occupants have separate access to two exits or exit access doorways.

EXIT ACCESS. That portion of a means of egress system that leads from any occupied portion of a building or structure to an exit.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.
Cost Impact
The code change proposal will not increase or decrease the cost of construction.
As the proposal essentially provides clarification to a subject that has created confusion.
2018 International Building Code

SECTION 1030 EMERGENCY ESCAPE AND RESCUE

Revise as follows:

1030.1 General Where required. In addition to the means of egress required by this chapter, emergency escape and rescue openings shall be provided in the following occupancies:

1. Group R-2 occupancies located in stories with only one exit or access to only one exit as permitted by Tables 1006.3.3(1) and 1006.3.3(2).
2. Group R-3 and R-4 occupancies.

Basements and sleeping rooms below the fourth story above grade plane shall have not fewer than one exterior emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way.

Exceptions:

1. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue openings.
2. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior egress balcony that opens to a public way.
3. Basements without habitable spaces used only to house mechanical equipment and having not more than 200 square feet (18.6 m²) in floor area shall not be required to have emergency escape and rescue openings.
4. Within individual dwelling and sleeping units in Groups R-2 and R-3, where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:
   4.1. One means of egress and one emergency escape and rescue opening.
   4.2. Two means of egress.

Reason:
This is one of a series of 11 proposals to coordinate the Emergency Escape and Rescue Openings (EERO) technical criteria in the IBC and IRC. Please see the proposal for the definition of Emergency Escape and Rescue Openings for additional information. Due to the code development schedule the proposals for IBC will be proposed in Group A and the proposals for IRC will be proposed in Group B.

IBC

The definition includes ‘exterior’, so it does not need to be repeated in the text.
It was decided not to add the IRC defined ‘habitable attic’. If added to the IBC, would the IBC also have to pick up the definition and the number of stories below the habitable attic space? (the IRC definition says this is not a story).
IBC Exception 2 - change to correct term for ‘exterior egress balcony’
IBC Exception 3 - coordination with IRC, limit is just size without additional criteria for habitable.
Add storm shelter exception to IBC. Reference ICC 500 so that the escape openings provided are what is specified for storm shelters.
There will be a similar proposal for the IRC in Group B.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any
interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

**Cost Impact**
The code change proposal will not increase or decrease the cost of construction.

This is a coordination item for exceptions for EEROs already permitted between the codes.

Internal ID: 458
E108-18
IBC: 1030.1.1, (IFC[BE] 1030.1.1)

Proponent: Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@iccsafe.org)

2018 International Building Code

Revise as follows:

1030.1.1 Operational constraints and opening control devices. Emergency escape and rescue openings shall be operational from inside the room without the use of keys or tools. Window-opening control devices complying with ASTM F2090 shall be permitted for use on windows serving as a required emergency escape and rescue opening shall comply with ASTM F2090.

Reason:
This is one of a series of 11 proposals to coordinate the Emergency Escape and Rescue Openings (EERO) technical criteria in the IBC and IRC. Please see the proposal for the definition of Emergency Escape and Rescue Openings for additional information. Due to the code development schedule the proposals for IBC will be proposed in Group A and the proposals for IRC will be proposed in Group B.

IBC - Last sentence reworded as a requirement to be consistent with IRC

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

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

This is a coordination item for requirements for EEROs already permitted between the codes.

Internal ID: 459
**E109-18**

**IBC: 1030.2, 1030.2.1, 1030.3, (IFCBE) 1030.2, 1030.2.1, 1030.3**

**Proponent:** Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@iccsafe.org)

2018 International Building Code

*Add new text as follows:*

**1030.2 Emergency escape and rescue openings.** Emergency escape and rescue openings shall have minimum dimensions in accordance with Section 1030.2.1 through 1030.2.3.

**Revise as follows:**

**1030.2.1 Minimum size.** Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.53 m²).

**Exception:** The minimum net clear opening for grade-floor emergency escape and rescue openings shall be 5 square feet (0.46 m²).

**1030.2.2 Minimum dimensions.** The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

**1030.3 Maximum height from floor.** Emergency escape openings shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor.

**Reason:**
This is one of a series of 11 proposals to coordinate the Emergency Escape and Rescue Openings (EERO) technical criteria in the IBC and IRC. Please see the proposal for the definition of Emergency Escape and Rescue Openings for additional information. Due to the code development schedule the proposals for IBC will be proposed in Group A and the proposals for IRC will be proposed in Group B.

This proposal deals with Minimum size, dimensions and height.

**IBC 310.3 – revise to coordinate language and organization with the IRC.**

There will be a similar proposal to Group B for IRC:

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

**Cost Impact**
The code change proposal will not increase or decrease the cost of construction.

This is a coordination item for requirements for EEROs already permitted between the codes.

Internal ID: 460
Add new text as follows:

1030.3 Emergency escape and rescue doors. Where a door is provided as the required emergency escape and rescue opening, it shall be a swinging door or a sliding door.

Reason:
This is one of a series of 11 proposals to coordinate the Emergency Escape and Rescue Openings (EERO) technical criteria in the IBC and IRC. Please see the proposal for the definition of Emergency Escape and Rescue Openings for additional information. Due to the code development schedule the proposals for IBC will be proposed in Group A and the proposals for IRC will be proposed in Group B.

This proposal deals with doors used as emergency escape and rescue openings. IBC and IRC have different phrases for types of doors. Rather than totally separate requirements for doors and windows, the intent of this proposal is to use the same criteria as much as possible. That is literally what the current IRC text does, but with a lot of duplication. There will be a coordination change for IRC as part of Group B.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

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

This is a coordination item for requirements for EEROs already permitted between the codes.

Internal ID: 461
E111-18
IBC: 1030.4, 1030.4.1, 1030.4.2, 1030.4.2.1 (New), 1030.4.3 (New), 1030.5, (IFC[B]) 1030.4, 1030.4.1, 1030.4.2, 1030.4.2.1 (New), 1030.4.3 (New), 1030.5)

Proponent: Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@iccsafe.org)

2018 International Building Code

Revise as follows:

1030.4 Window Area wells. An emergency escape and rescue opening with a finished sill height below the bottom of the clear opening below the adjacent ground level grade shall be provided with a window area well in accordance with Sections 1030.4.1 and 1030.4.2 through 1030.4.4.

1030.4.1 Minimum size. The minimum horizontal area of the window area well shall be 9 square feet (0.84 m²), with a minimum dimension of horizontal projection and width of not less than 36 inches (914 mm). The area of the window well shall allow the emergency escape and rescue opening to be fully opened.

Exception: The ladder or steps required by Section 1030.4.2.1 shall be permitted to encroach not more than 6 inches (152 mm) into the required dimensions of the area well.

1030.4.2 Ladders or steps. Window area wells with a vertical depth of more than 44 inches (1118 mm) shall be equipped with an approved permanently affixed ladder or steps. Ladders or rungs shall have an inside width of not less than 12 inches (305 mm), shall project not less than 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center (o.c.) vertically for the full height of the window well. The ladder or steps shall not encroach into the required dimensions of the window well by more than 6 inches (152 mm). The ladder or steps shall not obstruct the emergency escape and rescue opening when the window or door is in the open position.

Ladders or steps required by this section are exempt from the stairway requirements of shall not be required to comply with Section 1011.

Add new text as follows:

1030.4.2.1 Ladders. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center (o.c.) vertically for the full height of the area well.

1030.4.3 Drainage. Area wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section 1805.

Exception: A drainage system for area wells is not required where the foundation is on well-drained soil or sand-gravel mixture soils in accordance with the United Soil Classification System, Group I Soils, in accordance with Section 1803.5.1.

Revise as follows:

1030.5.1 1030.4.4 Bars, grilles, covers and screens. Bars, grilles, covers, screens or similar devices are permitted to be placed over emergency escape and rescue openings, bulkhead enclosures or window area wells that serve such openings, provided that the minimum net clear opening size complies shall comply with Sections 1030.1.1 through 1030.4.2, 1030.2.2 and such 1030.4. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the emergency escape and rescue opening. Where such bars, grilles, covers, screens or similar devices are installed in existing buildings, they shall not reduce the net clear opening of the emergency escape and rescue opening and smoke alarms shall be installed in accordance with Section 907.2.10 regardless of the valuation of the alteration.

Reason:
This is one of a series of 11 proposals to coordinate the Emergency Escape and Rescue Openings (EERO) technical criteria in the IBC and IRC. Please see the proposal for the definition of Emergency Escape and Rescue Openings for additional information. Due to the code development schedule the proposals for IBC will be proposed in Group A and the proposals for IRC will be proposed in Group B.

This proposal deals with area wells. There will be a coordinated change for IRC in Group B.

IBC 1030.4 - The same point of measurement should be used for both the maximum height above floor (section above) and the window well. Should not mix ‘grade’ and ‘ground level’.
IBC 1030.4.1 - “horizontal projection and width” is more specific. IBC exception for ladder encroachment moved up from 1030.4.2.

IBC 1030.4.2 - IBC encroachment of ladder into well moved up to 1030.4.1. IRC. The sentence about the window not obstructing the ladder has been clarified. Added ‘doors’. Requirements for ladders moved into separate section. IBC 1030.4.3 - No change to requirements. Just pulled out to separate section.

IBC 1030.4.4 - Revisions for coordination. Reference to emergency and escape opening size and minimum window well size. IBC existing building sentence should be in IEBC. “Special knowledge is revised to be consistent with IBC - the term allows for too broad of an interpretation.

There will be a coordination change for IRC as part of Group B.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

**Cost Impact**
The code change proposal will not increase or decrease the cost of construction.

This is a coordination item for requirements for EEROs already permitted between the codes.

Internal ID: 462
**E112-18**
**IBC: 1030.4.2.2 (New), (IFC[BE] 1030.4.2.2(New))**

**Proponent:** Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@icc safe.org)

**2018 International Building Code**

**Add new text as follows:**

**1030.4.2.2 Steps.** Steps shall have an inside width of not less than 12 inches (305 mm), shall have treads greater than 5 inches (127 mm) in depth and a riser height not greater than 18 inches (457 mm) for the full height of the area well.

**Reason:**
This is one of a series of 11 proposals to coordinate the Emergency Escape and Rescue Openings (EERO) technical criteria in the IBC and IRC. Please see the proposal for the definition of Emergency Escape and Rescue Openings for additional information. Due to the code development schedule the proposals for IBC will be proposed in Group A and the proposals for IRC will be proposed in Group B.

The current provisions says ladders and steps don’t have to comply with the standard stairway provisions, however, while specific provisions are provided for ladders, no limits are provided for steps. The option here it the same width and distance between steps are permitted for ladders. The tread depth is the minimum width from alternating tread devices and ships ladders.

Following are examples of stepped configurations that are used today. The proposed language would allow for the use of Figures 1 and 3, but not 2 and 4.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.
Cost Impact

The code change proposal will increase the cost of construction.

There would be an increase for costs at EEROs where a home owner wanted to have the option of a stepped area well. This could possibly add extra steps, but there is not an increase in size requirements.
2018 International Fire Code

Revise as follows:

1031.7 Emergency escape and rescue openings. Required emergency escape and rescue openings shall be maintained in accordance with the code in effect at the time of construction, and both of the following:

1. Required emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.

2. Bars, grilles, grates or similar devices are permitted to be placed over emergency escape and rescue openings provided that the minimum net clear opening size complies with the code that was in effect at the time of construction and such the unit is equipped with smoke alarms installed in accordance with Section 907.2.11 of the International Building Code. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the emergency escape and rescue opening.

2018 International Property Maintenance Code

Revise as follows:

[F] 702.4 Emergency escape openings and rescue openings. Required emergency escape and rescue openings shall be maintained in accordance with the code in effect at the time of construction, and both of the following:

1. Required emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.

2. Bars, grilles, grates or similar devices are permitted to be placed over emergency escape and rescue openings provided that the minimum net clear opening size complies with the code that was in effect at the time of construction and such the unit is equipped with smoke alarms installed in accordance with Section 907.2.11 of the International Building Code. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.

Reason:

This is one of a series of 11 proposals to coordinate the Emergency Escape and Rescue Openings (EERO) technical criteria in the I-codes. Please see the proposal for the definition of Emergency Escape and Rescue Openings for additional information. Due to the code development schedule the proposals for IFC and IPMC will be proposed in Group A and the proposals for IEC will be proposed in Group B.

The IPMC should be revised to follow the format in the IFC, with a slight editorial change in language. To address situations where someone added these grills without a permit and for consistency with IEBC, add a requirement for smoke detectors.

There will be a coordinating proposal to the IEBC Section 505.4 and 701.4 as part of Group B.

This proposal is submitted by the ICC Fire Code Action Committee (FCAC). The FCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance assigned International Codes with regard to fire safety and hazardous materials in new and existing buildings and facilities and the protection of life and property in wildland urban interface areas. In 2017 the Fire-CAC has held 3 open meetings. In addition, there were proposed changes. Related documentation and reports are posted on the FCAC website at: FCAC.

Cost Impact

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

This is an existing requirement in the IEBC. To add this to IFC and IPMC is just reminding someone what the requirements are, so there is no change to requirements where someone wants to add grills.

Internal ID: 465
G4-18
IBC: 202

Proponent: Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@icc Safe.org)

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

2018 International Building Code

SECTION 202 DEFINITIONS

Revise as follows:

[BE] GRADE FLOOR EMERGENCY ESCAPE AND RESCUE OPENING. A window or other emergency escape and rescue opening located such that the sill height bottom of the clear opening is not more than 44 inches (1118 mm) above or below the finished ground level adjacent to the opening.

Reason:
This is one of a series of 11 proposals to coordinate the Emergency Escape and Rescue Openings (EERO) technical criteria in the IBC and IRC. Please see the proposal for the definition of Emergency Escape and Rescue Openings for additional information. Due to the code development schedule the proposals for IBC will be proposed in Group A and the proposals for IRC will be proposed in Group B.

The phrase “grade floor emergency escape and rescue opening” is used in IBC 1030.2 and IRC R310.2.1. The definition should be for the phrase as utilized in the text. The definition for EEROs includes “windows, doors or other similar devices.” Using the defined term EERO instead of “windows and other openings” encompasses all options.

What is a ‘sill’ is not clear – the change to “bottom of the clear opening” will set a specific height for consistency with technical criteria.

There will be a Group B proposal for the IRC.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

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

This coordination of an existing definition with no technical changes to the text.

Internal ID: 455
G5-18 Part I
PART 1: IBC: 202; IFC: 202;
PART 2: IPMC: 202 (New)

Proponent: Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@iccunsafe.org)

THIS IS A TWO PART CODE CHANGE. PART 1 WILL BE HEARD BY THE MEANS OF EGRESS COMMITTEE. PART 2 WILL BE HEARD BY THE PROPERTY MAINTENANCE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEE.

2018 International Building Code

SECTION 202 DEFINITIONS

Revise as follows:

[BE] EMERGENCY ESCAPE AND RESCUE OPENING. An operable exterior window, door or other similar device that provides for a means of escape and access for rescue in the event of an emergency.

2018 International Fire Code

SECTION 202 GENERAL DEFINITIONS

Revise as follows:

[BE] EMERGENCY ESCAPE AND RESCUE OPENING. An operable exterior window, door or other similar device that provides for a means of escape and access for rescue in the event of an emergency.

Reason:
The intent of this proposal is the coordinate the definitions for emergency escape and rescue openings (EERO) between IBC, IRC, IEBC, IPMC, IFC. The EERO is always an exterior opening, and this descriptor is in the definition in IRC. The definition should appear in all codes where there are criteria for EEROs, so the definition should be added to IPMC and IEBC.

There will be a code proposal in Group B to coordinate IRC and IEBC.

This is the start of a series of 11 proposals to coordinate the requirements for Emergency Escape and Rescue Opening (EERO) requirements, primarily in the IBC and IRC, but also in the IEBC, IPMC and IFC. Due to the code development schedule the proposals for IBC, IPMC and IFC will be proposed in Group A and the proposals for IRC and IEBC will be proposed in Group B.

So that it is clear what the result of these overall proposals will be, the following is a clean version of what the text for EERO would be if all proposals are approved. The one section in the IRC that the BCAC is not proposing to duplicate in the IBC is the allowance for a EERO to be located below a deck.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

This is what the EERO requirements would look like if all of the proposals are approved.

IBC

EMERGENCY ESCAPE AND RESCUE OPENING. An operable exterior window, door or other similar device that provides for a means of escape and access for rescue in the event of an emergency.

GRADE FLOOR EMERGENCY ESCAPE AND RESCUE OPENING. An emergency escape and rescue opening located such that the bottom of the clear opening is not more than 44 inches (1118 mm) above or below the finished ground level adjacent to the opening.

SECTION 1030

EMERGENCY ESCAPE AND RESCUE
1030.1 Where required. In addition to the means of egress required by this chapter emergency escape and rescue openings shall be provided in the following occupancies:

1. Group R-2 occupancies located in stories with only one exit or access to only one exit as permitted by Tables 1006.3.3(1) and 1006.3.3(2)

2. Group R-3 and R-4 occupancies.

Basements and sleeping rooms below the fourth story above grade plane shall have no fewer than one emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, an emergency escape and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way.

Exceptions:

1. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue openings.

2. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior egress balcony that opens to a public way.

3. Basements used only to house mechanical equipment and having not more than 200 square feet (18.6 m²) in floor area shall not be required to have emergency escape and rescue openings.

4. Storm shelters are not required to comply with this section where the shelter is constructed in accordance with ICC 500.

5. Within individual dwelling and sleeping units in Groups R-2 and R-3, where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:

5.1. One means of egress and one emergency escape and rescue opening

5.2. Two means of egress.

1030.1.1 Operational constraints and opening control devices. Emergency escape and rescue openings shall be operational from inside the room without the use of keys or tools. Window opening control devices on windows serving as a required emergency escape and rescue opening shall comply with ASTM F2090.

1030.2 Emergency escape and rescue openings. Emergency escape and rescue opening shall have minimum dimensions in accordance with Section 1030.2.1 through 1030.2.3.

1030.2.1 Minimum size. Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.53 m²).

Exception: The minimum net clear opening for grade-floor emergency escape and rescue openings shall be 5 square feet (0.46 m²).

1030.2.2 Minimum dimensions. The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

1030.2.3 Maximum height from floor. Where a window is provided as the Emergency escape and rescue openings, such window shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor.

1030.3 Emergency escape and rescue doors. Where a door is provided as the required emergency escape and rescue opening, it shall be a swinging door or a sliding door.

1030.4 Area wells. An emergency escape and rescue opening with the bottom of the clear opening below the adjacent grade shall be provided with an area well in accordance with Sections 1030.4.1 through 1030.4.4.

1030.4.1 Minimum size. The minimum horizontal area of the area well shall be 9 square feet (0.84 m²), with a horizontal projection and width of not less than 36 inches (914 mm). The area well shall allow the emergency escape and rescue opening to be fully opened.

Exception: The ladder or steps required by Section 1030.4.2.1 shall be permitted to encroach not more than 6 inches (152 mm) into the required dimensions of the area well.

1030.4.2 Ladders or steps. Area wells with a vertical depth of more than 44 inches (1118 mm) shall be equipped with an approved permanently affixed ladder or steps. The ladder or steps shall not be obstructed by the emergency escape and rescue opening when the window or door is in the open position. Ladders or steps required by this section...
shall not be required to comply with Section 1011.

1030.4.2.1 Ladders. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center (o.c.) vertically for the full height of the area well.

1030.4.2.2 Steps. Steps shall have an inside width of at least 12 inches (305 mm), shall have minimum treads depth of 5 inches (127 mm) and a maximum riser height of 18 inches (457 mm) for the full height of the area well.

1030.4.3 Drainage. Area wells shall be designed for proper drainage by connecting to the building’s foundation drainage system required by Section 1805.

Exception: A drainage system for area wells is not required where the foundation is on well-drained soil or sand-gravel mixture soils in accordance with the United Soil Classification System, Group I Soils, in accordance with Section 1803.5.1.

1030.4.4 Bars, grilles, covers and screens. Where Bars, grilles, covers, screens or similar devices are placed over emergency escape and rescue openings, bulkhead enclosures, or area wells that serve such openings the minimum net clear opening size shall comply with Section 1030.1.1 through 1030.2.2 and 1030.4. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the emergency escape and rescue opening.

IRC

[RB] EMERGENCY ESCAPE AND RESCUE OPENING. An operable exterior window, door or similar device that provides for a means of escape and access for rescue in the event of an emergency.

GRADE FLOOR EMERGENCY ESCAPE AND RESCUE OPENING. An emergency escape and rescue opening located such that the bottom of the clear opening is not more than 44 inches (1118 mm) above or below the finished ground level adjacent to the opening.

SECTION R310

EMERGENCY ESCAPE AND RESCUE OPENINGS

R310.1 Where required. Basements, habitable attics and every sleeping room shall have no fewer than one emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way, or to a yard or court that opens to a public way.

Exceptions:
1. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue openings.
2. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, or that opens to a public way.
3. Basements used only to house mechanical equipment not exceeding a total floor area of 200 square feet (18.58 m²) shall not be required to have emergency escape and rescue openings.
4. Storm shelters are not required to comply with this section where the shelter is constructed in accordance with ICC 500.
5. Where the dwelling or townhouse is equipped with an automatic sprinkler system installed in accordance with Section P2904, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:
   5.1. One means of egress complying with Section R311 and one emergency escape and rescue opening.
   5.2. Two means of egress complying with Section R311.

R310.1.1 Operational constraints and opening control devices. Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys, or tools. Window opening control devices on windows serving as a required emergency escape and rescue opening shall comply with ASTM F2090.

R310.2 Emergency escape and rescue openings. Emergency escape and rescue openings shall have minimum dimensions in accordance with Section R310.2.1 through R310.2.3.

R310.2.1 Minimum size. Emergency and escape rescue openings shall have a net clear opening of not less than 5.7 square feet (0.530 m²).

Exception: The minimum net clear opening for grade-floor emergency escape and rescue openings shall be 5 square feet (0.465 m²).
R310.2.2 Minimum dimensions. The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

R310.2.3 Maximum height from floor. Where a window is provided as the emergency escape and rescue openings such window shall have the bottom of the clear opening not greater than 44 inches (1118 mm) above the floor.

R310.3 Emergency escape and rescue doors. Where a door is provided as the required emergency escape and rescue opening, it shall be a swinging door or a sliding door.

R310.4 Area wells. An emergency escape and rescue opening with the bottom of the clear opening below the adjacent grade shall be provided with an area well in accordance with Sections R310.4.1 through R310.4.4.

R310.4.1 Minimum size. The horizontal area of the area well shall be not less than 9 square feet (0.9 m²), with a horizontal projection and width of not less than 36 inches (914 mm). The area well shall allow the emergency escape and rescue opening to be fully opened.

Exception: The ladder or steps required by Section R310.4.2.1 shall be permitted to encroach not more than 6 inches (152 mm) into the required dimensions of the area well.

R310.4.2 Ladder and steps. Area wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with an approved permanently affixed ladder or steps. The ladder or steps shall not be obstructed by the emergency escape and rescue opening when the window or door is in the open position. Ladders or steps required by this section shall not be required to comply with Section R311.7.

R310.4.2.1 Ladders. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center (o.c.) vertically for the full height of the area well.

R310.4.2.2 Steps. Steps shall have an inside width of at least 12 inches (305 mm), shall have minimum treads depth of 5 inches (127 mm) and a maximum riser height of 18 inches (457 mm) for the full height of the area well.

R310.4.3 Drainage. Area wells shall be designed for proper drainage by connecting to the building’s foundation drainage system required by Section R405.1.

Exception: A drainage system for area wells is not required where the foundation is on well-drained soil or sand-gravel mixture soils in accordance with the United Soil Classification System, Group I Soils, as detailed in Table R405.1.

R310.4.4 Bars, grilles, covers and screens. Where bars, grilles, covers, screens or similar devices are placed over emergency escape and rescue openings, bulkhead enclosures, or area wells that serve such openings, the minimum net clear opening size shall comply with Sections R310.2 through R310.2.2 and R310.4.1. Such devices shall be releasable or removable from the inside without the use of a key or tool or force greater than that required for the normal operation of the escape and rescue opening.

R310.5 Emergency escape and rescue openings under decks and porches. Emergency escape and rescue openings installed under decks and porches shall be fully operable and provide a path not less than 36 inches (914 mm) in height to a yard or court.

IFC

[BE] EMERGENCY ESCAPE AND RESCUE OPENING. An operable exterior window, door or other similar device that provides for a means of escape and access for rescue in the event of an emergency.

403.10.3.6 Resident participation in drills. Emergency evacuation drills shall involve the actual evacuation of residents to a selected assembly point and shall provide residents with experience in exiting through all required exits. All required exits shall be used during emergency evacuation drills.

Exception: Actual exiting from emergency escape and rescue openings shall not be required. Opening the emergency escape and rescue openings and signaling for help shall be an acceptable alternative.

1031.7 Emergency escape and rescue openings. Required emergency escape and rescue openings shall be maintained in accordance with the code in effect at the time of construction, and both of the following:

1. Required emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.

2. Bars, grilles, grates or similar devices are allowed to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with the code that was in effect at the time of construction and the unit is equipped with smoke alarms installed in accordance with Section 907.2.11 of the International Building Code. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the emergency escape and rescue opening.

IEBC
**[BE] EMERGENCY ESCAPE AND RESCUE OPENING.** An operable exterior window, door or other similar device that provides for a means of escape and access for rescue in the event of an emergency.

**IEBC (prescriptive method)**

**505.4 Emergency escape and rescue openings.** Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.

Bars, grilles, grates or similar devices are allowed to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with the code that was in effect at the time of construction and the unit is equipped with smoke alarms installed in accordance with Section 907.2.11 of the International Building Code. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the emergency escape and rescue opening.

**IEBC (Alterations Level 1)**

**701.4 Emergency escape and rescue openings.** Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.

Bars, grilles, grates or similar devices are allowed to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with the code that was in effect at the time of construction and the unit is equipped with smoke alarms installed in accordance with Section 907.2.11 of the International Building Code. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the emergency escape and rescue opening.

**IPMC**

**[BE] EMERGENCY ESCAPE AND RESCUE OPENING.** An operable exterior window, door or other similar device that provides for a means of escape and access for rescue in the event of an emergency.

**[F] 702.4 Emergency escape and rescue openings.** Required emergency escape and rescue openings shall be maintained in accordance with the code in effect at the time of construction, and both of the following:

1. Required emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.

2. Bars, grilles, grates or similar devices are permitted to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with the code that was in effect at the time of construction and the unit is equipped with smoke alarms installed in accordance with Section 907.2.11 of the International Building Code. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.

**Cost Impact**

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

This coordination of an existing definition with no technical changes to the text.

Internal ID: 454
2018 International Property Maintenance Code

SECTION 202 GENERAL DEFINITIONS

Add new definition as follows:

**EMERGENCY ESCAPE AND RESCUE OPENING.** An operable window, door or other similar device that provides for a means of escape and access for rescue in the event of an emergency.

Internal ID: 3406
THIS CODE CHANGE WILL BE HEARD BY THE MEANS OF EGRESS COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2018 International Building Code

Delete without substitution:

403.5.6 Emergency escape and rescue. Emergency escape and rescue openings specified in Section 1030 are not required.

Reason:
EERO not required for high-rises in Section 1030.1, so the exception not needed in the high-rise provisions in Section 403.

This is one of a series of 11 proposals to coordinate the Emergency Escape and Rescue Openings (EERO) technical criteria in the I-codes. Please see the proposal for the definition of Emergency Escape and Rescue Openings for additional information.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

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

There is no requirement or change in technical criteria for construction.

Internal ID: 457
IBC: 1029.16, 1029.16.1, (IFC[BE] 1029.16.1029.16.1)  
Proponent: Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@iccsafe.org)

2018 International Building Code

Revise as follows:

1029.16 Handrails. Ramped aisles having a slope exceeding one unit vertical in 15 units horizontal (6.7-percent slope) and stepped aisles shall be provided with handrails in compliance with Section 1014 located either at one or both sides of the aisle or within the aisle width. Where stepped aisle have seating on one side and the aisle width is 74 inches (1880 mm) or greater, two handrails are required. Where two handrails are required, one of the handrails shall be within 30 inches horizontally of the end of the aisle accessways.

Exceptions:

1. Handrails are not required for ramped aisles with seating on both sides.
2. Handrails are not required where, at the side of the aisle, there is a guard with a top surface that complies with the graspability requirements of handrails in accordance with Section 1014.3.
3. Handrail extensions are not required at the top and bottom of stepped aisles and ramped aisles to permit crossovers within the aisles.

1029.16.1 Discontinuous handrails. Where there is seating on both sides of the aisle, the mid-aisle handrails shall be discontinuous. Where the stepped aisle is required to have two handrails, handrails not located on a guard or wall shall be discontinuous. The gaps or breaks at intervals shall not exceeding five rows to facilitate access to seating and to permit crossing from one side of the aisle to the other. These gaps or breaks shall have a clear width of not less than 22 inches (559 mm) and not greater than 36 inches (914 mm), measured horizontally, and the mid-aisle handrail shall have rounded terminations or bends.

1029.16.2 Handrail termination. Handrails located on the side of stepped aisles shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stepped aisle flight.

1029.16.3 Mid-aisle termination. Mid-aisle handrails shall not extend beyond the lowest riser and shall terminate within 18 inches (381 mm), measured horizontally, from the lowest riser. Handrail extensions are not required.

Exception: Mid-aisle handrails shall be permitted to extend beyond the lowest riser where the handrail extensions do not obstruct the width of the cross aisle.

Reason:
The social stairway is a new style being used in common areas of schools and multi-assembly buildings. It appears to fall somewhere between stairways and assembly seating. If this is considered a stairway next to platforms, the general requirement for handrails on both sides of the stairway prevents access to the platforms (Example 4). Considering this configuration as assembly seating would require one handrail with current text.

This proposal considers this arrangement as a type of assembly seating. The width would have to be determined using both the general circulation number from the upper/lower floor and the seating in accordance with Section 1029.6.1, which requires extra width if a handrail is not with 30”. By considering this assembly seating, accessible wheelchairs spaces would already be addressed. Drop offs along the top would have to meet guard provisions.

To address occupant safety, this proposal will require a mid-aisle handrail on wide stepped aisles in addition to the handrail on the wall. The reasoning for 74” was that we did not want either side of the handrails to create a width that was not readily useable (30” + 44” = 74”). The second handrail being within 30” of the edge of the platform allows flexibility in handrail placement, but still keeps the handrail within reach of persons moving off the platforms. Where there is not a cross aisle, the handrail would still have to have handrail extensions at the top and bottom, as well as meet all the other handrail provisions in Section 1014 and 1029.6. This 2nd handrails would typically not show up in stadium seating where aisles are typically less wide than specified here.

As you can see in the examples provided: Example 1 has two handrails, but with one on the far side of the platform. Example 4 a 2nd handrail blocks access to the platforms, so people either climb up the platforms, or go under the handrail. In example 2 and 3 a handrail is only provided on one side of the stairway, regardless of width. None of these configuration would address stairway safety and access to the platforms. Example 3 has an example handrail drawn in red of what these requirements would add.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board
of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.
Cost Impact
The code change proposal will increase the cost of construction.

In some situations, this could require a 2nd handrail for occupant safe egress on the stairways.

Internal ID: 479
**E58-18**  
**IBC: 1010.1.9.8, 1010.1.10, (IFC[BE] 1010.1.9.8, 1010.1.10)**  
**Proponent:** Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@iccsafe.org)  

**2018 International Building Code**

**Revise as follows:**

**1010.1.9.8 Delayed egress.** Delayed egress locking systems shall be permitted to be installed on doors serving the following occupancies in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907.

2. Group E classrooms with an occupant load of less than 50.
   
   **Exception:** Delayed

3. In a courthouse, delayed egress locking systems shall be permitted to be installed on exit or exit access doors, other than the main exit or exit access door, serving a Group A-3 courtroom in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

**1010.1.10 Panic and fire exit hardware.** Swinging doors serving a Group H occupancy and swinging doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock other than panic hardware or fire exit hardware.

**Exceptions:**

1. A main exit of a Group A occupancy shall be permitted to have locking devices in accordance with Section 1010.1.9.4, Item 2.
2. Doors provided with panic hardware or fire exit hardware and serving a Group A or E occupancy shall be permitted to be electrically locked in accordance with Section 1010.1.9.9 or 1010.1.9.10.
3. Courtrooms shall be permitted to be locked in accordance with Section 1010.1.9.8, Item 3.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide, and that contain overcurrent devices, switching devices or control devices with exit or exit access doors, shall be equipped with panic hardware or fire exit hardware. The doors shall swing in the direction of egress travel.

**Reason:**

This is only a format issue resulting from the multiple changes last cycle to the delayed egress locks - E66-15 AMPC1, E68-15 AM/AMPC1, E69-15 AS. The allowance for courthouses, while logical, is out of place as an exception to Items 1 and 2 in Section 1010.1.9.8.

Correlation with Section 1010.1.9.8 in Section 1010.1.10 is needed because this is Group A where panic hardware is otherwise required.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

**Cost Impact**

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

This is a format revision with no change to technical criteria.
2018 International Building Code

Revise as follows:

1010.1.4.4 Locking arrangements in educational occupancies. In Group E and occupancies, Group B educational occupancies and Group I-4 occupancies, egress doors from classrooms, offices and other occupied rooms shall be permitted to be provided with locking arrangements designed to keep intruders from entering the room where all of the following conditions are met:

1. The door shall be capable of being unlocked from outside the room with a key or other approved means.
2. The door shall be openable from within the room in accordance with Section 1010.1.9.
3. Modifications shall not be made to listed panic hardware, fire door hardware or door closers.
4. Modifications to fire door assemblies shall be in accordance with NFPA 80.

Remote locking or unlocking of doors from an approved location shall be permitted in addition to the unlocking operation in Item 1.

Delete without substitution:

1010.1.4.4.1 Remote operation of locks. Remote operation of locks complying with Section 1010.1.4.4 shall be permitted.

2018 International Fire Code

Revise as follows:

[BE] 1031.2.2 Locking arrangements in educational occupancies. In Group E occupancies, Group B educational occupancies and Group I-4 occupancies, egress doors from classrooms, offices and other occupied rooms shall be permitted to be provided with locking arrangements designed to keep intruders from entering the room where all of the following conditions are met:

1. The door shall be capable of being unlocked from outside the room with a key or other approved means.
2. The door shall be openable from within the room in accordance with Section 1010.1.9.
3. Modifications shall not be made to existing listed panic hardware, fire door hardware or door closers.
4. Modifications to fire door assemblies shall be in accordance with NFPA 80.

Reason:

During the last code development cycle several proposals were accepted to address various locking arrangements being proposed for educational occupancies. During the Group A and Group B cycles, there were additions made to the various proposals, which results in current code language that is not entirely correlated. This proposal attempts to correlate the codes so requirements are consistent throughout.

IFC includes allowances for Group I-4, which are not listed in the IBC. Lock-down plans for day care facilities are as important as for schools. The further language for Group I-4 “child day care” is not needed to describe the occupancy.

The reason statement for the public comment said that the committee did not want to make these locks mandatory, but by using “shall be permitted”, lock-down systems could be provided that did not comply with these requirements. With the proposed language, a school could choose to add locks to keep out intruders, but those locks would have to comply with these important safety features.

Subsection 1010.1.4.4.1 is confusing. The allowance for remote unlocking from the outside could easily be included in Section 1010.1.4.4. This was not included in IFC.
There will be a correlative change submitted to IEBC as part of Group B proposals since this is an important modification being done by schools across the country.

This proposal is submitted by the ICC Building Code Action Committee (BCAC) and Fire Code Action Committee (FCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

The FCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance assigned International Codes with regard to fire safety and hazardous materials in new and existing buildings and facilities and the protection of life and property in wildland urban interface areas. In 2017 the Fire-CAC has held 3 open meetings. In addition, there were numerous conference calls, Regional Work Group and Task Group meetings for the current code development cycle, which included members of the committees as well as any interested parties, to discuss and debate the proposed changes. Related documentation and reports are posted on the FCAC website at: https://www.iccsafe.org/codes-tech-support/cs/fire-code-action-committee-fcac/

**Cost Impact**
The code change proposal will not increase or decrease the cost of construction.

. This is a correlation between the IFC and IBC with no technical change.

Internal ID: 515
IBC: SECTION 1006.3.2, TABLE 1006.3.3(1), TABLE 1006.3.3(2), IFC[BE] TABLE 1006.3.2, TABLE 1006.3.3(1), TABLE 1006.3.3(2))

Proponent: Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@iccsafe.org)

2018 International Building Code

Revise as follows:

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. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required number of exits or access to exits serving that story.

1006.3.2 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 1006.3.2. A single exit or access to a single exit shall be permitted in accordance with Section 1006.3.3. 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 1006.3.2
MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS PER STORY OR OCCUPIED ROOF

<table>
<thead>
<tr>
<th>OCCUPIED LOAD PER STORY</th>
<th>MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS FROM PER STORY OR OCCUPIED ROOF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-500</td>
<td>2</td>
</tr>
<tr>
<td>501-1,000</td>
<td>3</td>
</tr>
<tr>
<td>More than 1,000</td>
<td>4</td>
</tr>
</tbody>
</table>

1006.3.3 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 common path of egress travel distance do not exceed the values in Table 1006.3.3(1) or 1006.3.3(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 1006.3.3(1)

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

<table>
<thead>
<tr>
<th>STORY AND OCCUPIED ROOF</th>
<th>OCCUPANCY</th>
<th>MAXIMUM NUMBER OF DWELLING UNITS</th>
<th>MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basement, first, second or third story above grade plane</td>
<td>R-2&lt;sup&gt;a, b&lt;/sup&gt;</td>
<td>4 dwelling units</td>
<td>125 feet</td>
</tr>
<tr>
<td>Occupied roof over the first, second or third story above grade plane</td>
<td>R-2&lt;sup&gt;a, b&lt;/sup&gt;</td>
<td>NA</td>
<td>125 feet</td>
</tr>
<tr>
<td>Fourth story above grade plane and higher</td>
<td>NP</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
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 1030.

b. This table is used for R-2 occupancies consisting of dwelling units. For R-2 occupancies consisting of sleeping units, use Table 1006.3.3(2).
<table>
<thead>
<tr>
<th>STORY AND OCCUPIED ROOF</th>
<th>OCCUPANCY</th>
<th>MAXIMUM OCCUPANT LOAD PER STORY AND OCCUPIED ROOF</th>
<th>MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First story above or below grade plane and occupied roofs over the first story above grade plane</td>
<td>A, B&lt;sup&gt;b&lt;/sup&gt;, E&lt;sup&gt;h&lt;/sup&gt;, M, U</td>
<td>49</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>H-2, H-3</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>H-4, H-5, I, R-1, R-2&lt;sup&gt;c&lt;/sup&gt;, S&lt;sup&gt;b&lt;/sup&gt;, d</td>
<td>10</td>
<td>75</td>
</tr>
<tr>
<td>Second story above grade plane and occupied roof over the second story above grade plane</td>
<td>B, F, M, S&lt;sup&gt;d&lt;/sup&gt;</td>
<td>29</td>
<td>75</td>
</tr>
<tr>
<td>Third story above grade plane and higher</td>
<td>NP</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
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:**
This is part of a series of 3 proposals dealing with occupied roofs. See BCAC proposals to the definition of penthouse and Section 1009.

The change to the title and heading in Table 1006.3.2 is for consistency with the text.

The proposed modifications to Section 1006 includes adding ‘occupied roofs’ to Table 1006.3.3(1) to clarify the conditions in which one exit or access to one exit is allowed for Group R-2 occupancies. The tables are modified to clarify that the occupied roofs are allowed ‘over the allowable stories.’

Similarly this proposal adds ‘occupied roofs’ to Table 1006.3.3(2) to clarify the conditions in which one exit or access to one exit is allowed for the other occupancies. The table was also modified to clarify that the occupied roofs are allowed ‘over the allowable stories.’ 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.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

**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.

Internal ID: 520
E29-18
IBC: 1009.2.1, (IFC[BE] 1009.2.1)

Proponent: Ed Kullik, Chair, representing ICC Building Code Action Committee (bcac@iccsafe.org)

2018 International Building Code

Revise as follows:

1009.2.1 Elevators required. In buildings where a required accessible floor 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. For purposes of determining where an elevator is required for accessible means of egress, in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, an occupied roof shall not be considered a story.

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 on floors provided with a ramp conforming to the provisions of Section 1012.

Reason:
This is part of a series of 3 proposals dealing with occupied roofs. See BCAC proposals to the definition of penthouse and Section 1006.

This is NOT for when an accessible route is required to an occupied roof. That is already addressed in Section 1104.4. This is ONLY for when an elevator would be required to serve as part of an accessible means of egress, and thus add a requirement for standby power. This allowance would only be applicable where there was an occupied roof on a 4 story building. If there is an occupied roof on any taller buildings, unless those buildings meet one of the other exceptions for ramps or horizontal exits, standby power would be required to all floors, including the occupied roof.

The roof is required to be open to the outside, so there is not the accumulation for smoke that would be found on a typical interior floor - so that offers extra passive protection of occupants on the roof. Therefore, there did not seem to be any justification to require standby power for this limited situation. The stairways would still be required to comply with Section 1009 for accessible means of egress from the roof.

This proposal reinforces the concept that an occupied roof is not a story for the purpose of determining that an elevator is required as an accessible means of egress in properly sprinklered buildings.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

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

This clarifies that standby power is not required for an elevator serving an occupied roof on a 4 story building. Without this clarification, if standby power was required, that would be a significant cost increase.

Internal ID: 522
2018 International Building Code

SECTION 202 DEFINITIONS

Revise as follows:

[BG] PENTHOUSE. An enclosed, unoccupied rooftop structure used for sheltering mechanical and electrical equipment, tanks, elevators and related machinery, stairways and vertical shaft openings.

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 Section 907.5 is provided in the area of the occupied roof.

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.

SECTION 1510 ROOFTOP STRUCTURES

[BG] 1510.1 General. The provisions of this section shall govern the construction of rooftop structures.

1510.1.1 Area limitation. The aggregate area of penthouses and other enclosed rooftop structures shall not exceed one-third the area of the supporting roof deck. Such penthouses and other enclosed rooftop structures shall not be required to be included in determining the building area or number of stories as regulated by Section 503.1. The area of such penthouses shall not be included in determining the fire area specified in Section 901.7.

[BG] 1510.2 Penthouses. Penthouses in compliance with Sections 1510.2.1 through 1510.2.5 shall be considered as a portion of the story directly below the roof deck on which such penthouses are located. Other penthouses shall be considered as an additional story of the building.

[BG] 1510.2.1 Height above roof deck. Penthouses constructed on buildings of other than Type I construction shall not exceed 18 feet (5486 mm) in height above the roof deck as measured to the average height of the roof of the penthouse. Penthouses located on the roof of buildings of Type I construction shall not be limited in height.

Exception: Where used to enclose tanks or elevators that travel to the roof level, penthouses shall be permitted to have a maximum height of 28 feet (8534 mm) above the roof deck.

[BG] 1510.2.2 Use limitations. Penthouses shall not be used for purposes other than the shelter of mechanical or electrical equipment, tanks, elevators and related machinery, stairways or vertical shaft openings in the roof assembly, including ancillary spaces used to access elevators and stairways.

Reason:
This is part of a series of 3 proposals dealing with occupied roofs. See BCAC proposals to Section 1006 and 1009. Although it was felt the original intent of the egress associated with occupied roofs was clear, we felt there were a few remaining provisions that left doubt as to what was intended. It had been reported that some code officials had interpreted the existing code provision to treat an unoccupied roof as an additional story so as to decrease the actual allowable stories in Chapter 5. To clarify that occupied roofs are not considered stories and are permitted to be used provide that egress is provided in accordance with all applicable sections of the IBC and IFC purposes in a manner “as if they were a story” without applying other “story” requirements like those associated with height and area limitations in Chapter 5 or fire area provisions of Chapter 9, we propose the above modifications as summarized below:
In Section 202, the definition of “PENTHOUSE” is proposed to be modified by adding the word “stairway”. This reinforces the existing and proposed language in Section 1510 that excludes certain allowable rooftop structures from being considered additional stories. The definition was not modified to include vestibule type areas as this is addressed in the proposed change to Section 1510.2.2.

The proposal in Section 503.1.4 Occupied roofs, adds a clarifying statement to support the concept that occupied roofs and other enclosed structures in Section 1510 are not an additional story.

Proposed modifications to Section 1510 Rooftop Structures include the additions of the word “Stairways” and the term, including ancillary spaces used to access elevators and stairways.” to Section 1510.2.2. Use Limitations.

As flat/low-slope rooftops are increasingly, and intentionally, being designed and utilized for occupancies similar to those on occupied floor levels below, modifications to the current code are necessary to define rooftop structures that are occupied and ancillary to approved occupied roof uses and to clarify that these structures must comply with means of egress requirements, but are not a story for height and area limitations. In addition, the proposed modifications described above align the limitations for Occupied roof ancillary structures with those for penthouses as a reasonable approach based upon the shared characteristics of the two structure types.

This proposal is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2017 the BCAC has held 3 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: https://www.iccsafe.org/codes-tech-support/codes/codedevelopment-process/building-code-action-committee-bcac.

**Cost Impact**

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

This proposal is a clarification reminder of the scope of requirements included in the identified sections.

Internal ID: 516