E87-09/10
1010.1 (IFC [B] 1010.1)

Proposed Change as Submitted

Proponent: Jon Siu, City of Seattle, representing Washington Association of Building Officials Technical Code Development Committee

Revise as follows:

1010.1 (IFC [B] 1010.1) Scope. The provisions of this section shall apply to ramps used as a component of a means of egress.

Exceptions:

1. Other than ramps that are part of the accessible routes providing access in accordance with Sections 1108.2 through 1108.2.4 and 1108.2.6, ramped aisles within assembly rooms or spaces shall conform with the provisions in Section 1028.11.
2. Curb ramps shall comply with ICC A117.1.
3. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Sections 1010.3 through 1010.9 when they are not an accessible route serving accessible parking spaces~~,~~ or other required accessible elements ~~or part of an accessible means of egress~~.
4. In a parking garage where one accessible means of egress serving accessible parking spaces or other accessible elements is provided, a second accessible means of egress serving that area shall be permitted to include a vehicle ramp that does not comply with Sections 1010.4 through 1010.8.

Reason: This proposal solves a practical problem with current code language. In parking garages where parking is provided on the ramps, the accessible parking spaces are usually located on flat areas at the ends of the ramps. One accessible means of egress can usually be easily provided on the flat portion of the garage ramp. However, many times the second required means of egress is provided at the other end or at the center of the garage, and is accessed via the vehicle ramp. While the ramp may be able to provide the correct slope to provide the second accessible means of egress from the accessible parking spaces (1 vertical in 12 horizontal), it is impractical in these types of garages to provide features such as handrails on both sides of the ramp, or to provide a landing for every 30 inches of rise.

The proposed text is modeled on Section 1010.1 exception 3, which allows the deletion of the some provisions for vehicle ramps used as exit access for pedestrians. However, because the ramp still needs to be used as an accessible means of egress, it is necessary to maintain a usable cross-slope (Section 1010.3). In addition, protection at the edges of the ramp should still be provided where the accessible means of egress is along the edge of the vehicle ramp (Section 1010.9). On the other hand, if the accessible means of egress is not near the edge of the vehicle ramp (the most likely scenario), Section 1010.9, Exception 1 can be used to eliminate the edge protection, since the requirement for 1:10 sloped "flares" will easily be met.

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

ICCFILENAME: SIU-E1-1010.1

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: This is a design issue for the accessible level. There are concerns for the cross slope and lack of landings for an accessible means of egress route.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Maureen Traxler representing City of Seattle Dept. of Planning & Development, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1010.1 (IFC [B] 1010.1) Scope. The provisions of this section shall apply to ramps used as a component of a means of egress.

Exceptions:

1. Other than ramps that are part of the accessible routes providing access in accordance with Sections 1108.2 through 1108.2.4 and 1108.2.6, ramped aisles within assembly rooms or spaces shall conform with the provisions in Section 1028.11.
2. Curb ramps shall comply with ICC A117.1.
3. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Sections 1010.3 through 1010.9 when they are not an accessible route serving accessible parking spaces, or other required accessible elements.
4. In a parking garage where one accessible means of egress serving accessible parking spaces or other accessible elements is provided, a second accessible means of egress serving that area shall be permitted to include a vehicle ramp that does not comply with Sections 1010.4, 1010.5, ~~through~~ and 1010.8.

Commenter's Reason: The original proposal was submitted to solve a practical problem with parking garages where parking is provided on the ramps. The accessible parking spaces are usually located on flat areas at the ends of the ramps, so that one accessible means of egress can usually be easily provided on the flat portion of the garage ramp. The problem is that many times the second required means of egress must be accessed via the vehicle ramp. It is often impractical in these types of garages to provide features such as handrails on both sides of the ramp.

The Code Development Committee disapproved the proposal due to concerns for the cross slope and lack of landings for an accessible means of egress route. To address that concern, the proposal is modified to eliminate only the requirements related to vertical rise between landings and handrails. The revised proposal requires landings wherever there is a change in direction on the ramp because Section 1010.6 is not part of the exception.

Final Action: AS AM AMPC____ D

E90-09/10
1011.2 (New) [IFC [B] 1011.2 (New)]

Proposed Change as Submitted

Proponent: Donald LeBrun, CBO, State of Indiana, Fire & Building Safety, representing Indiana Association of Building Officials

Add new text as follows:

1011.2 (IFC [B] 1011.2) Location. When exit signs are mounted on the same vertical plane as the exit or exit-access door served the sign shall be centered above the door with the bottom of the sign no more than 12 inches (305 mm) above the door leaf. Other exit signs used to direct persons to the exit or exit-access door shall be no higher than 10 feet (3.05 m) above the finish floor.

(Renumber subsequent sections)

Reason: Currently we have no direction as to where exit signs should be located. With the higher ceilings being used in more structures we are finding exit signs being mounted well above the exit served, sometimes as much as 25 feet above the door. In an emergency situation people will seek exiting information at their eye level and never see the exit sign 20 feet above their heads. Mounting exit signs at the proposed levels would greatly increase the visibility and effectiveness of the exit signs.

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

ICCFILENAME:Lebrun-E1-1011.2

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: This would be a conflict in industrial facilities where high ceilings are needed to move equipment or to signs are located high in order to see them over obstructions. The proponent may choose to narrow this down to certain occupancies where high ceilings are found but clearances are needed (i.e., restaurants).

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because public comments were submitted.

Public Comment 1:

George Kellogg, Rocklin, CA, representing Sacramento Valley Association of Building Officials, requests Approval as Submitted.

Commenter's Reason: This proposal does not appear to conflict with high ceilings in industrial facilities as they can be suspended from the ceiling, mounted on the wall above the door or near the floor. The proposal is needed in large commercial and assembly properties where display walls can cause exiting confusion, making the exits difficult to identify. With clearer exit signage, life/safety can be improved in large and confusing occupancies.

Public Comment 2:

Donald LeBrun, Indianapolis, IN, representing Indiana Association of Building Officials, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1011.2 (IFC [B] 1011.2) Location <u>in Groups A, B, E, I, M and R</u>. <u>In Groups A, B, E, I, M and R</u>, when exit signs are mounted on the same vertical plane as the exit or exit-access door served the sign shall be centered above the door with the bottom of the sign no more than 12 inches (305 mm) above the door leaf. Other exit signs used to direct persons to the exit or exit-access door shall be no higher than 10 feet (3.05 m) above the finish floor.

Commenter's Reason: This proposal does not appear to conflict with high ceilings in industrial facilities as they can be suspended from the ceiling, mounted on the wall above the door or near the floor. The proposal is needed in large commercial and assembly properties where display walls can cause exiting confusion, making the exits difficult to identify. With clearer exit signage, life/safety can be improved in large and confusing occupancies.

Final Action: AS AM AMPC____ D

E91-09/10
1011.2 (New) [IFC [B] 1011.2 (New)]

Proposed Change as Submitted

Proponent: Donald LeBrun, CBO, State of Indiana, Fire & Building Safety, representing Indiana Association of Building Officials

Add new text as follows:

<u>1011.2 (IFC [B] 1022.1) Floor-level exit signs in Group R-1.</u> <u>Where exit signs are required by Section 1011.1, additional low-level exit signs shall be provided in all corridors serving guest rooms in Group R-1 occupancies.</u>

<u>The bottom of such sign shall be not less than 6 inches (152mm) nor more than 8 inches (203mm) above the floor level. For exit and exit-access doors, the sign shall be on the door or adjacent to the door with the closest edge of the sign within 4 inches (102 mm) of the door frame.</u>

(Renumber subsequent sections)

Reason: This proposal is specifically intended for use group R-1 occupancies where the occupants are transient and not familiar with their surroundings. The current practice of installing exit signs above the heads of most people works well except in a smoke filled space which often accompanies a fire situation. As the space fills with smoke the effectiveness of the high level exit signage diminishes forcing evacuees to crawl on the floor to reach the nearest exit. The installation of these low level will greatly assist these persons in safely exiting the structure.

Cost Impact: This proposal will increase the cost of construction

ICCFILENAME:Lebrun-E2-1011.2

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: Technical justification was not provided to indicate how these floor exit signs would assist exiting in Hotels. If there is smoke in the corridor, the proper approach in a hotel room is to close the door and wait for assisted rescue, not to crawl to the exit or try and make it past the fire. The geometry indicating locations may be a conflict with other parts of the codes (i.e., minimum bottom rails on accessible door). There needs to be UL requirements for these signs. If this is an issue for hotels, it should include Group R-2 transient as well as Group R-1.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Donald LeBrun, Indianapolis, IN, representing the Indiana Association of Building Officials, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1011.2 (IFC [B] 1022.1) Floor-level exit signs in Group R-1. Where exit signs are required in Group R-1 by Section 1011.1, additional low-level exit signs shall be provided in all ~~corridors~~ areas serving guest rooms in Group R-1 occupancies and shall comply with Section 1011.4.

The bottom of the ~~such~~ sign shall be not less than ~~6~~ 10 inches (~~152~~ 254 mm) nor more than ~~8~~ 12 inches (~~203~~ 305 mm) above the floor level. The sign shall be flush mounted to the door or wall. When mounted on the wall, the edge of the sign shall be within 4 inches (102 mm) of the door frame on the latch side. ~~For exit and exit access doors, the sign shall be on the door or adjacent to the door with the closest edge of the sign within 4 inches (102 mm) of the door frame.~~

Commenter's Reason: The Means of Egress Committee voiced four comments to the original proposal:

1. That the transient uses in Group R-2 should be included in this proposal.
2. That the proposed mounting heights may allow damage to the signs from wheelchairs.
3. That hotel room occupants should stay in their rooms and await rescue.
4. That a standard needed to be brought forward for these signs.

This proposal was specifically intended for Group R-1 occupancies where the occupants are transient and not familiar with their surroundings. As there are no transient uses in Group R-2, we have not added that group to this proposal. While we agree that the Group R-2 should be included, it is not for the committee's reason and feel that staying with the Group R-1 is more appropriate at this time.

The mounting heights prescribed in this proposal have been increased slightly to take into account the heights of kick plates as well as wheelchair foot rests and push bars.

The statement by the committee is that people should stay in their rooms and await rescue is well and good in theory. However, it does not serve to model real life. The first thing people try to do in a fire situation is to get out of the building. Over the years, thousands have died from smoke inhalation while attempting to flee the burning building.

A reference to Underwriters Laboratory Standard UL 924, Standard for Emergency Lighting and Power Equipment, has been added by the reference to Section 1011.4. This standard is already reference in Section 1011.4 and is included in Chapter 35. This is similar to the language for low level exit signs in special amusement buildings in Section 411.7.

The current practice of installing exit signs above the door frames works well except in the smoke filled spaces which occur in a fire situation. The effectiveness of these high level signs is lost when the smoke layer develops at the ceiling. As the space fills with smoke the evacuees are forced to crawl on the floor to reach the nearest exit. They will be confronted with many doors, all looking the same and will not know which is really the exit door. The installation of these low level exit signs will greatly assist these persons in safely exiting the building.

Additionally, these low level exit signs will serve to increase firefighter safety while on the fire scene. In their efforts to evacuate the occupants the firefighters will be in that smoke filled hallway. They may also become dependent upon this low level signage while trying to locate the doors to the stair tower and safely egress the fire floor.

Final Action: AS AM AMPC____ D

E95-09/10
1012.2 (IFC [B] 1012.2)

Proposed Change as Submitted

Proponent: Kenneth F. Traugott, NVR, Inc, representing self

Revise as follows:

1012.2 (IFC [B] 1012.2) Height. Handrail height, measured above stair tread nosings, or finish surface of ramp slope shall be uniform, not less than 34 inches (864 mm) and not more than 38 inches (965 mm). Handrail height of alternating tread devices and ship ladders, measured above tread nosings, shall be uniform, not less than 30 inches (762 mm) and not more than 34 inches (864 mm).

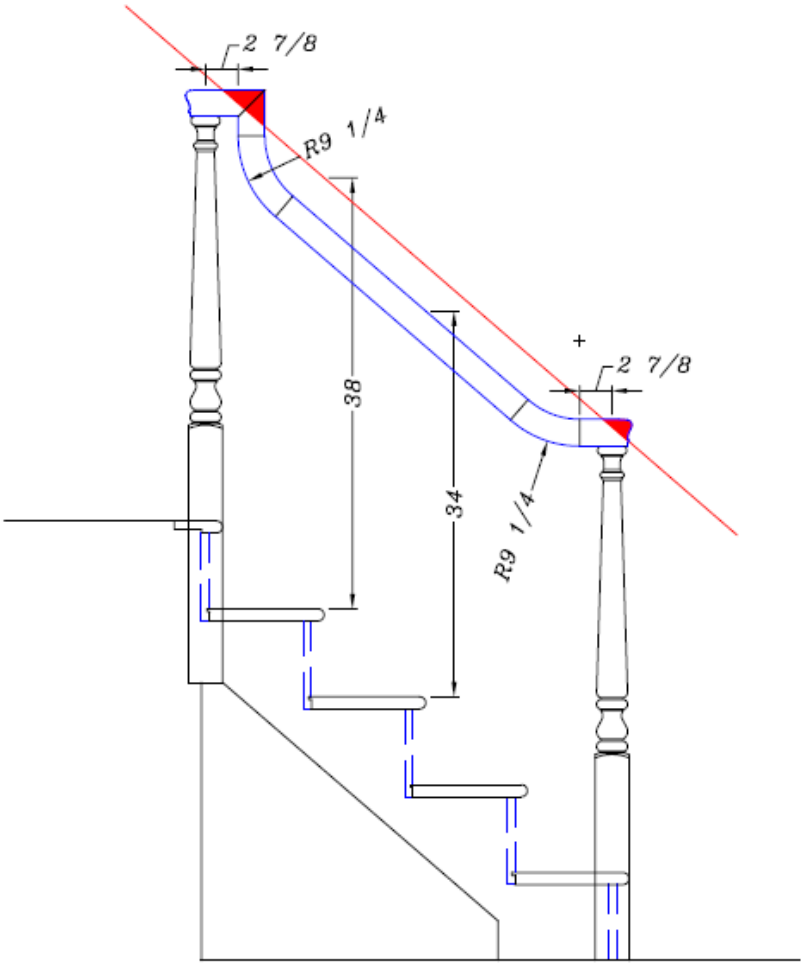
> **Exception:** In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are associated with a Group R-3 occupancy or associated with individual dwelling units in Group R-2 occupancies; when handrail fittings or bendings are used to provide continuous transition between flights, transition at winder treads, transition from handrail to guard, or when used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed the maximum height.

Reason: The above information is being requested to clarify the Code. Fittings such as easings and gooseneck risers are commonly used features intended to provide rail continuity at locations where a straight transition is not possible. Incorporating such features is consistent with the provisions of IBC Section 1012.4 (Continuity) and with standard architectural and construction practice.

The intent of the Code is that the provisions of Section 1012.3 be applied only over the stair run, and not at landings. The handrail height requirements are applicable over the stairway run, not at landings. The height of the handrail, when it doglegs or u-turns over a landing, will vary so that the handrail can remain continuous in accordance with Section 1012.4 and 1012.5. The handrail extensions at the end must also meet the protruding object provisions if they return to a support post (Section 1003.3.2 and 1012.5).

Unfortunately, the current wording of the Code, although it does indicate that height requirements should be "measured above stair tread nosings," does not clearly state that the height requirements do not apply over landings, at winder treads, where handrails meet a guardrail, or when used at the start of a flight. Inspectors, plan reviewers, and other building code officials in many jurisdictions are currently not accepting handrail fittings such as easings or gooseneck risers which are provided to maintain continuity.

This would be consistent with the provisions in the International Residential Code, Section R311.7.7.1, Exp. 2.



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

ICCFILENAME:Lebrun-E2-1011.2

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: Goosenecks portions of the handrails (as illustrated in the proponent's reason statement) can result in a vertical handhold on the railing which can be a safety issue for occupants using that portion of the handrail.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

David W. Cooper, Stair Manufacturing and Design Consulting, representing Stairway Manufacturers' Association, requests Approval as Submitted.

Commenter's Reason: The fittings and bendings noted in the exception are already permitted in Section 1012.4 Continuity. This new exception only applies to residential applications and is equivalent to the IRC in R311.7.7.1 Handrail height, thus providing for consistent interpretation of the codes. This exception allows the cost effective use of stock fittings as opposed to hand carving custom wreaths and or fabrication of custom bends. What the committee did not understand is this exception only applies when a continuous transition is made and provides an additional margin of safety than the alternative interruption of the rail by a newel at these same locations as specified in Section 1012.4 Continuity.

Final Action: AS AM AMPC____ D

E100-09/10, Part I
1002.1, 1013.2 (IFC [B] 1002.1, 1013.2)

Proposed Change as Submitted

PART I – IBC MEANS OF EGRESS

1. Add new definition as follows:

1002.1 (IFC [B] 1002.1) Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

FIXED SEATING. Furniture or fixture designed and installed for the use of sitting and secured in place including bench-type seats and seats with or without back or arm rests.

2. Revise as follows:

1013.2 (IFC [B] 1013.2) Height. Required guards shall not be less than 42 inches (1067 mm) high, measured vertically ~~above the~~ as follows:

1. From the adjacent walking surfaces;
2. From a seat surface of adjacent fixed seating, with or without arm or back rests, within 22 inches of a required guard, the guard height shall provide a minimum 42 inches measured diagonally between the top of the guard and the nearest edge of the seat surface; ~~or~~
3. On stairs, from the line connecting the leading edges of the tread ~~treads~~ nosings; and
4. On ramps, from the ramp surface at the guard.

Exceptions:

1. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, *guards* on the open sides of *stairs* shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
2. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, where the top of the *guard* also serves as a *handrail* on the open sides of *stairs*, the top of the *guard* shall not be less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
3. The guard height in front row assembly seating areas complying ~~shall be in accordance~~ with Section 1028.14.
4. Along *alternating tread devices* and ship ladders, *guards* whose top rail also serves as a *handrail*, shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread *nosing*.

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

This proposed change is a result of the CTC's investigation of the area of study entitled "Climbable Guards". The scope of the activity is noted as:

The study of climbable guards will focus on determining the need for appropriate measures to prevent or inhibit an individual from utilizing the elements of a guard system, including rails, balusters and ornamental patterns, to climb the guard, thereby subjecting that person to the falling hazard which the guard system is intended to prevent.

The purposes of this proposal are to address several items raised last cycle during consideration of code change E85-07/08 which was approved. In particular, this proposal clarifies what constitutes "fixed seating" and proposes a horizontal distance between an object that reduces the "effective" height of a required guard rather than placing total reliance on the term "adjacent".

Definition: The definition of "fixed seating" provides for a common understanding where the term is used. This was a concern that was raised in Public Comment #2 to E85 which was not successful.

Item #2: The concern addressed in this revision is that of fixed seating, with or without arm rests and with or without back rests including bench seating located within 22" of the guard. This seating provides a potential standing surface which as a result reduces the effective height of the guard. For seating within 22" of the guard, the guard height is to be measured diagonally from the nearest edge of the seat to the top of the guard. This measurement method is currently utilized in Section 1028.14.3. The guard would be required to extend past the "last" seat in a row so that the guard top is 42" above the edge of the last seat.

The distance of 22" utilized in this exception has been determined by CTC to be a reasonable distance for the purpose described.

Item #3: The current text is modified to indicate that the line is to be between the tread nosings. In the case of a single riser, hence a single nosing, a minimum tread depth of 11 inches on the lower walking surface establishes the slope.

Item #4: The guard height at the edge of a ramp is to be measured at the guard without consideration for the ramp slope as the dimensional change in the guard height is relatively insignificant. With a ramp slope towards the guard of 1/12, the highest point 22" from the guard is 1.83 inches above the ramp surface at the guard. If the ramp slope is 1/8, at 22" from the guard, the ramp surface is 2.75 inches above the ramp surface at the guard.

IBC Exception **3:** The provisions for guard reduction for front row seating are primarily intended to accommodate the sight line for seated occupants- see section 1028.14.2. The seating within 22 inches of the guards elsewhere would necessitate an increase in the required guard height as indicated in **Item #2.**

ICCFILENAME:Heilstedt-E3-1013.2

Public Hearing Results

PART I IBC MEANS OF EGRESS
Committee Action: **Disapproved**

Committee Reason: In Section 1013.2, Item 2, there was no substantiation for the 22 inch separation between the fixed seating and the guard. The task force needs to work with experts in assembly seating. The front row concept does not address all the issues for the line of site in venues such as sports stadiums where the event is over the field and not a point.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because public comments were submitted.

Public Comment 1:

Paul K. Heilstedt, PE, Hon. AIA, Chair, representing ICC Code Technology Committee (CTC); Ed Roether, representing Populous (Formerly HOK Sport Venue Event) requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1013.2 (IFC [B] 1013.2) Height. Required guards shall not be less than 42 inches (1067 mm) high, measured vertically as follows:

1. From the adjacent walking surfaces;
2. From a seat surface of adjacent fixed seating, with or without arm or back rests, within 22 inches <u>measured horizontally</u> of a required guard, the guard height shall provide a minimum 42 inches measured diagonally between the top of the guard and the nearest edge of the seat surface;
3. On stairs, from the line connecting the leading edges of the tread nosings; and
4. On ramps, from the ramp surface at the guard.

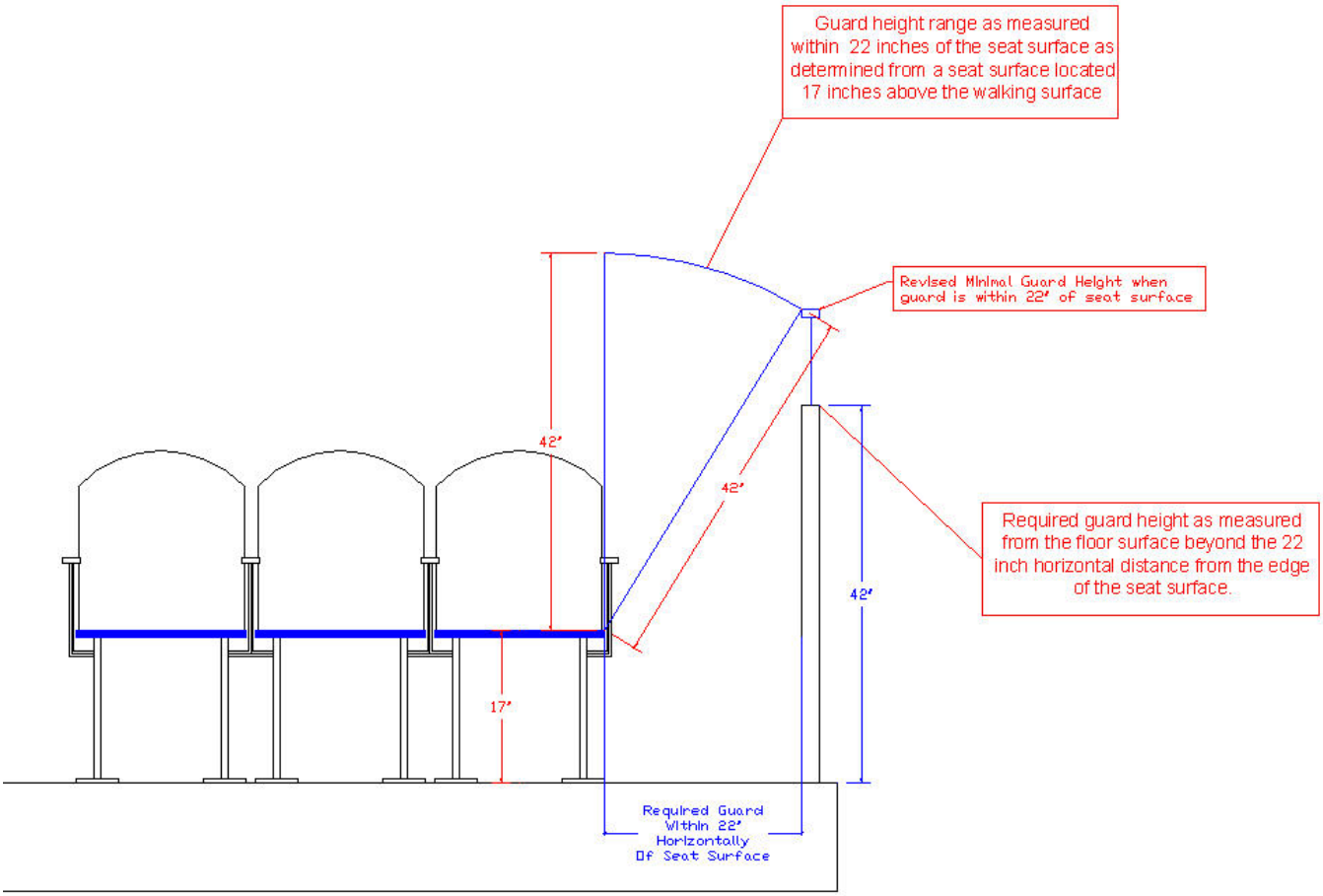
Exceptions:

1. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, *guards* on the open sides of *stairs* shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
2. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, where the top of the *guard* also serves as a *handrail* on the open sides of *stairs*, the top of the *guard* shall not be less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
3. The guard height in ~~front row~~ assembly seating areas ~~complying~~ <u>shall comply</u> with Section 1028.14.
4. Along *alternating tread devices* and ship ladders, *guards* whose top rail also serves as a *handrail*, shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread *nosing*.

Commenter's Reason: As noted by the code committee, there was some confusion as to how to make the measurements as well as the need to coordinate these changes with experts in assembly seating. In response, the CTC has partnered with the proponent of code change E147 who is an expert in assembly seating. Further, the CTC provides the following illustrations which show the relationship between the height of the guard and its proximity to the seating surface. This comment should be considered with E147.

If the code change is approved, the illustrations is intended to be added to the IBC Commentaries. The following illustrates the applications of the code requirements:

Elevation view of individual seat configuration, IBC Section 1013.2, Item 2:



Public Comment 2:

Stephen Thomas, Colorado Code Consulting, LLC, representing Colorado Chapter ICC requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1013.2 (IFC [B] 1013.2) Height. Required guards shall not be less than 42 inches (1067 mm) high, measured vertically above the as follows:

1. From the adjacent walking surfaces;
2. ~~From a seat surface of adjacent fixed seating, with or without arm or back rests, within 22 inches of a required guard, the guard height shall provide a minimum 42 inches measured diagonally between the top of the guard and the nearest edge of the seat surface or~~
3. ~~.~~ 2. On stairs, from the line connecting the leading edges of the tread nosings; and
4. ~~.~~ 3. On ramps, from the ramp surface at the guard.

Exceptions:

1. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, *guards* on the open sides of *stairs* shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
2. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, where the top of the *guard* also serves as a *handrail* on the open sides of *stairs*, the top of the *guard* shall not be less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
3. The guard height in ~~front row~~ assembly seating areas complying shall be in accordance with Section 1028.14.
4. Along *alternating tread devices* and ship ladders, *guards* whose top rail also serves as a *handrail*, shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread *nosing*.

Commenter's Reason: When jurisdictions start adopting the 2009 edition and see the fixed seating requirement, they cringe at the enforcement issues surrounding the guard that would now be 5 feet tall in areas that the a bench or some type of seating surface is attached to the floor. Just because a seat is "fixed" doesn't mean that it is permanent. What happens when the seating is relocated later? Does the guard at the new location need to be increased to 60 inches above the floor? How will the guard at the old location look without the seating? This requirement is unenforceable.

The committees noted that the proposed language needs additional work for the assembly seating requirements. The current language in Section 1028 adequately covers the requirements for guards in assembly spaces. We do not need to revise those requirements. This comment deletes the restriction to the front row assembly seating and addresses all assembly seating in exception 3.

The addition of the fixed seating guards in the 2009 IBC was over restrictive. Whether a seating surface is fixed or movable, a child can still climb over the guard and fall. In fact, children can climb over guards when there is no seating adjacent to a guard. The code cannot be written to protect everyone. We must draw the line at some point and this requirement crossed that line.

Final Action: AS AM AMPC____ D

E100-09/10, Part II
IRC R202, R312.2

Proposed Change as Submitted

PART II – IRC BUILDING/ENERGY

1. Add new definition as follows:

SECTION R202
DEFINITIONS

FIXED SEATING. Furniture or fixture designed and installed for the use of sitting and secured in place including bench-type seats and seats with or without back or arm rests.

2. Revise as follows:

R312.2 Height. Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches high measured vertically ~~above the~~ as follows:

1. From the adjacent walking surface;
2. From a seat surface of adjacent fixed seating, with or without arm or back rests, within 22 inches of the required guard, the guard height shall provide a minimum 36 inches measured diagonally between the top of the guard and the nearest edge of the seat surface ~~or~~;
3. On stairs, from the line connecting the leading edges of the tread ~~treads~~ nosings; and
4. On ramps, from the ramp surface at the guard.

Exceptions:

1. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
2. Where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

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

This proposed change is a result of the CTC's investigation of the area of study entitled "Climbable Guards". The scope of the activity is noted as:

The study of climbable guards will focus on determining the need for appropriate measures to prevent or inhibit an individual from utilizing the elements of a guard system, including rails, balusters and ornamental patterns, to climb the guard, thereby subjecting that person to the falling hazard which the guard system is intended to prevent.

The purposes of this proposal are to address several items raised last cycle during consideration of code change E85-07/08 which was approved. In particular, this proposal clarifies what constitutes "fixed seating" and proposes a horizontal distance between an object that reduces the "effective" height of a required guard rather than placing total reliance on the term "adjacent".

Definition: The definition of "fixed seating" provides for a common understanding where the term is used. This was a concern that was raised in Public Comment #2 to E85 which was not successful.

Item #2: The concern addressed in this revision is that of fixed seating, with or without arm rests and with or without back rests including bench seating located within 22" of the guard. This seating provides a potential standing surface which as a result reduces the effective height of the guard. For seating within 22" of the guard, the guard height is to be measured diagonally from the nearest edge of the seat to the top of the guard. This measurement method is currently utilized in Section 1028.14.3. The guard would be required to extend past the "last" seat in a row so that the guard top is 42" above the edge of the last seat.

The distance of 22" utilized in this exception has been determined by CTC to be a reasonable distance for the purpose described.

Item #3: The current text is modified to indicate that the line is to be between the tread nosings. In the case of a single riser, hence a single nosing, a minimum tread depth of 11 inches on the lower walking surface establishes the slope.

Item #4: The guard height at the edge of a ramp is to be measured at the guard without consideration for the ramp slope as the dimensional change in the guard height is relatively insignificant. With a ramp slope towards the guard of 1/12, the highest point 22" from the guard is 1.83 inches above the ramp surface at the guard. If the ramp slope is 1/8, at 22" from the guard, the ramp surface is 2.75 inches above the ramp surface at the guard.

IBC Exception **3:** The provisions for guard reduction for front row seating are primarily intended to accommodate the sight line for seated occupants- see section 1028.14.2. The seating within 22 inches of the guards elsewhere would necessitate an increase in the required guard height as indicated in **Item #2.**

ICCFILENAME:Heilstedt-E3-1013.2

Public Hearing Results

PART II- IRC B/E

Committee Action: **Disapproved**

Committee Reason: The committee feels this does address the issue but it does not address it fully. It will create some gray areas that will require interpretation of what the code intends. This needs more work. The committee suggests the addition of figures would improve the clarity on the intent.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because public comments were submitted.

Public Comment 1:

Paul K. Heilstedt, PE, Hon. AIA, Chair, representing ICC Code Technology Committee (CTC); Ed Roether, representing Populous (Formerly HOK Sport Venue Event) requests Approval as Modified

Modify the proposal as follows:

R312.2 Height. Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches high measured vertically as follows:

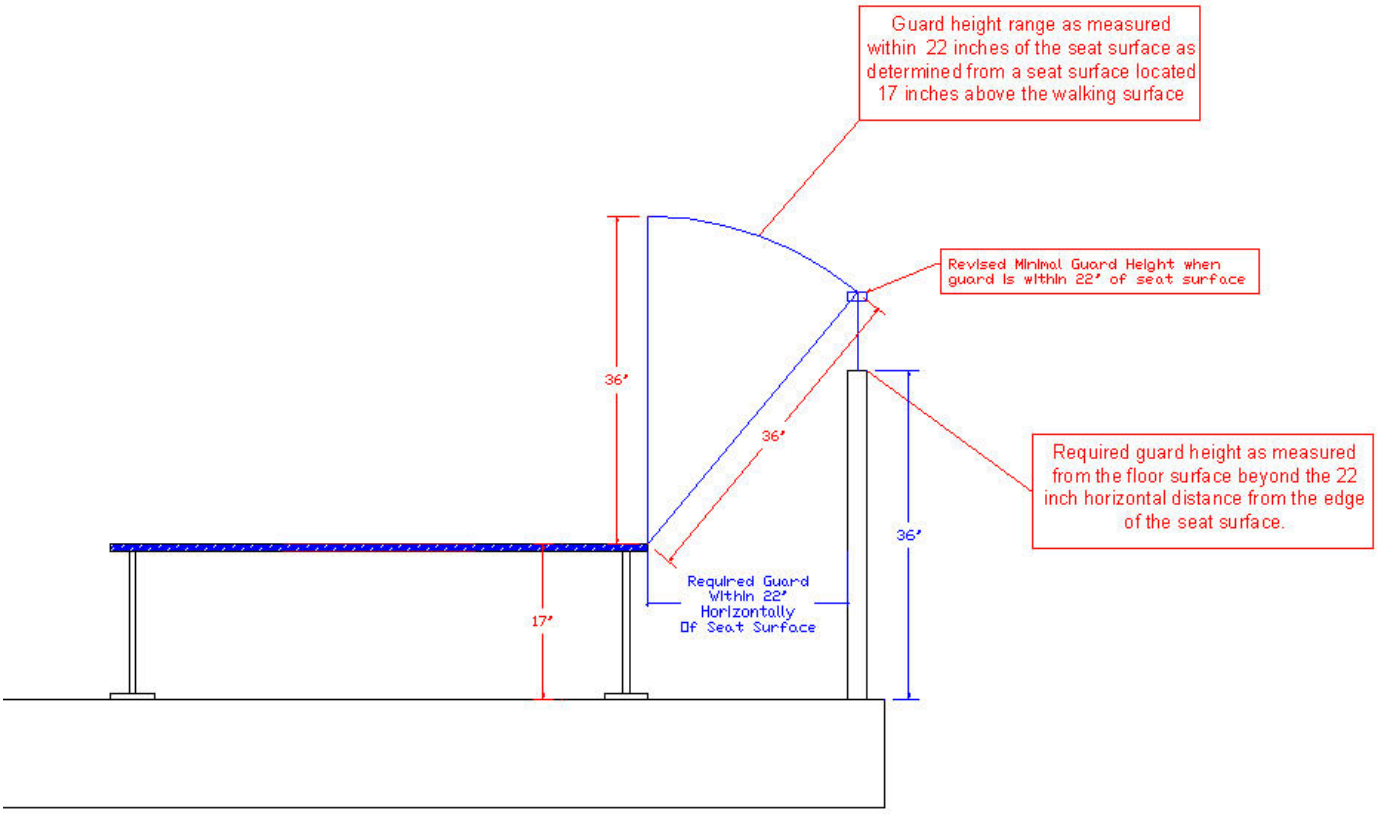
1. From the adjacent walking surface;
2. From a seat surface of adjacent fixed seating, with or without arm or back rests, within 22 inches measured horizontally of the required guard, the guard height shall provide a minimum 36 inches measured diagonally between the top of the guard and the nearest edge of the seat surface;
3. On stairs, from the line connecting the leading edges of the tread nosings; and
4. On ramps, from the ramp surface at the guard.

Exceptions:

1. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
2. Where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

Commenter's Reason: As noted by the code committee, there was some confusion as to how to make the measurements as well as the need to coordinate these changes with experts in assembly seating for the IBC requirements. If the code change is approved, the illustrations is intended to be added to the IRC Commentaries. The following illustrates the applications of the code requirements:

Elevation view of bench seat configuration – IRC 312.2, Item 2:



Public Comment 2:

Stephen Thomas, Colorado Code Consulting, LLC, representing Colorado Chapter ICC requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

R312.2 Height. Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches high measured vertically as follows:

1. From the adjacent walking surface;
2. ~~From a seat surface of adjacent fixed seating, with or without arm or back rests, within 22 inches of the required guard, the guard height shall provide a minimum 36 inches measured diagonally between the top of the guard and the nearest edge of the seat surface;~~
2.~~3.~~ On stairs, from the line connecting the leading edges of the tread nosings; and
3.~~4.~~ On ramps, from the ramp surface at the guard.

Exceptions:

1. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
2. Where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

Commenter's Reason: When jurisdictions start adopting the 2009 edition and see the fixed seating requirement, they cringe at the enforcement issues surrounding the guard that would now be nearly 4-1/2 feet tall (i.e., 18" + 36") in areas that the a bench or some type of seating surface is attached to the floor or deck. Just because a seat is "fixed" doesn't mean that it is permanent. What happens when the seating is relocated later? Does the guard at the new location need to be increased to 54 inches above the floor? How will the guard at the old location look without the seating? What if a homeowner adds fixed seating next to a guard? Will they now need a permit to install the seat? This requirement is unenforceable.

The addition of the fixed seating guards in the 2009 IRC was over restrictive. Whether a seating surface is fixed or movable, a child can still climb over the guard and fall. In fact, children can climb over guards when there is no seating adjacent to a guard. The code cannot be written to protect everyone. We must draw the line at some point and this requirement crossed that line.

Final Action: AS AM AMPC____ D

E105-09/10
1014.3, Table 1014.3 (New) [IFC [B] 1014.3, Table 1014.3 (New)]

Proposed Change as Submitted

Proponent: Homer Maiel, PE, CBO, City of San Jose**,** representing ICC Tri-Chapter (Peninsula, East Bay, Monterey Bay)

1. Revise as follows:

1014.3 (IFC [B] 1014.3) Common path of egress travel. The common path of egress travel shall not exceed the travel distances in Table 1014.3. ~~In occupancies other than Groups H-1, H-2 and H-3, the common path of egress travel shall not exceed 75 feet (22 860 mm). In Group H-1, H-2 and H-3 occupancies, the common path of egress travel shall not exceed 25 feet (7620 mm). For common path of egress travel in Group A occupancies and assembly occupancies accessory to Group E occupancies having fixed seating, see Section 1028.8.~~

~~Exceptions:~~

1. ~~The length of a common path of egress travel in Group B, F and S occupancies shall not be more than 100 feet (30 480 mm), provided that the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.~~
2. ~~Where a tenant space in Group B, S and U occupancies has an occupant load of not more than 30, the length of a common path of egress travel shall not be more than 100 feet (30 480 mm).~~
3. ~~The length of a common path of egress travel in a Group I-3 occupancy shall not be more than 100 feet (30 480 mm).~~
4. ~~The length of a common path of egress travel in a Group R-2 occupancy shall not be more than 125 feet (38 100 mm), provided that the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.~~

2. Add new Table as follows:

TABLE 1014.3 (IFC TABLE [B] 1014.3)
COMMON PATH OF EGRESS TRAVEL

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)			WITH SPRINKLER SYSTEM [a] (feet)
	Any Occupant Load (OL)	Occupant Load		
		OL 30	OL 30	
B, S	Not Applicable	100	75	100
U	Not Applicable	100	75	75
F	75	Not Applicable	Not Applicable	100
H-1, H-2, H-3	Not Permitted	Not Permitted	Not Permitted	25
R-2	75	Not Applicable	Not Applicable	125 [b]
I-3	100	Not Applicable	Not Applicable	100
All others [c]	75	Not Applicable	Not Applicable	75

a. Approved automatic sprinkler system in accordance with Section 903.3.1.1
b. Approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2
c. For Group A occupancies and assembly occupancies accessory to Group E occupancies having fixed seating, see Section 1028.8

Reason: This is an editorial change to simplify this code section. The existing paragraphs, with accompanying exceptions, have been replaced with a table which is easier to understand and follow. The content and code requirements are not altered in any form or shape.

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

ICCFILENAME:Maiel-E2-1014.3

Public Hearing Results

Committee Action: **Approved as Submitted**

Committee Reason: The table format is easier to read and brings clarity to the requirements for common path of egress travel.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because public comments were submitted.

Public Comment 1:

Eirene Oliphant, MCP, City of Leawood, representing the Metropolitan Kansas City Chapter of the ICC, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

TABLE 1014.3 (IFC TABLE [B] 1014.3)
COMMON PATH OF EGRESS TRAVEL

OCCUPANCY	WITHOUT SPRINKLER SYSTEM			WITH SPRINKLER SYSTEM[a]
	~~Any Occupant Load (OL)~~	Occupant Load (OL)		
		OL≤30	OL>30	
B, S	~~Not Applicable~~	100	75	100
U	~~Not Applicable~~	100	75	75
F	~~75~~	~~Not Applicable~~ 75	~~Not Applicable~~ 75	100
H-1, H-2, H-3	~~Not Permitted~~	Not Permitted	Not Permitted	25
R-2	~~75~~	~~Not Applicable~~ 75	~~Not Applicable~~ 75	125[b]
I-3	~~100~~	~~Not Applicable~~ 100	~~Not Applicable~~ 100	100
All others[c]	~~75~~	~~Not Applicable~~ 75	~~Not Applicable~~ 75	75

a. Approved automatic sprinkler system in accordance with Section 903.3.1.1
b. Approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2
c. For Group A occupancies and assembly occupancies accessory to Group E occupancies having fixed seating, see Section 1028.8

(Portions of proposal not shown remain unchanged)

Commenter's Reason: I applaud the original proponent for developing the table as it does simplify the language in the code. However, the column identified as "any occupant load" creates confusion as well. The two factors are whether or not the building is sprinklered and whether the occupant load is not more than 30. The proposed changes address all occupant loads for all occupancy groups identified in the table.

Public Comment 2:

Maureen Traxler, representing the City of Seattle Department of Planning & Development, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1014.3 (IFC [B] 1014.3) Common path of egress travel. The common path of egress travel shall not exceed the common path of egress travel distances in Table 1014.3.

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The subject of Section 1014.3 is common path of egress travel, so the reference to "travel distance" is replaced with "common path of egress travel" for consistency and to correlate with Table 1014.3.

Final Action: AS AM AMPC____ D

E106-09/10
1014.3 (IFC [B] 1014.3)

Proposed Change as Submitted

Proponent: Gene Boecker, Code Consultants Inc., representing Code Consultants, Inc.

Revise as follows:

1014.3 (IFC [B] 1014.3) Common path of egress travel. In occupancies other than Groups H-1, H-2 and H-3, the common path of egress travel shall not exceed 75 feet (22 860 mm). In Groups H-1, H-2 and H-3 occupancies, the common path of egress travel shall not exceed 25 feet (7620 mm). For common path of egress travel in Group A occupancies and assembly occupancies accessory to Group E occupancies having fixed seating, see Section 1028.8

Exceptions:

1. The length of a common path of egress travel in Group B, F and S occupancies shall not be more than 100 feet (30 480 mm), provided that the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
2. Where a tenant space in Group B, S and U occupancies has an occupant load of not more than 30, the length of a common path of egress travel shall not be more than 100 feet (30 480 mm).
3. The length of a common path of egress travel in a Group I-3 occupancy shall not be more than 100 feet (30 480 mm).
4. The length of a common path of egress travel in a Group R-2 or R-3 occupancy shall not be more than 125 feet (38 100 mm), provided that the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

Reason It is only appropriate that the exception should apply to a dwelling unit that is a single or double and not "three or more." Where a dwelling unit is associated with another occupancy and there are multiple apartments it will be an R-2 occupancy. If there is only the owner's apartment or two small apartments, then it would be treated as an R-3 occupancy. This is the case in urban areas. Additionally, R-3 needs the second means of egress where the area of the dwelling unit exceeds 4,000 sf (resulting in an occupant load >20) or where the unit is more than 3 stories in height.

By extending the exception to these dwelling units, it is only clarifying that the same rules apply to these types of uses whether there are one, two or three units in the same building.

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

ICCFILENAME:Boecker-E4-1014.3

Public Hearing Results

Committee Action: **Approved as Submitted**

Committee Reason: The occupants of a dwelling unit are familiar with the space; therefore, where two exits are required for Group R-3 occupancy, the common path of travel should be applicable in the same manner as a Group R-2 unit.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Stephan Thomas, Colorado Code Consulting, LLC, representing Colorado Chapter ICC, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1014.3 (IFC [B] 1014.3) Common path of egress travel. In occupancies other than Groups H-1, H-2 and H-3, the common path of egress travel shall not exceed 75 feet (22 860 mm). In Groups H-1, H-2 and H-3 occupancies, the common path of egress travel shall not exceed 25 feet (7620 mm). For common path of egress travel in Group A occupancies and assembly occupancies accessory to Group E occupancies having fixed seating, see Section 1028.8

Exceptions:

1. The length of a common path of egress travel in Group B, F and S occupancies shall not be more than 100 feet (30 480 mm), provided that the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
2. Where a tenant space in Group B, S and U occupancies has an occupant load of not more than 30, the length of a common path of egress travel shall not be more than 100 feet (30 480 mm).
3. The length of a common path of egress travel in a Group I-3 occupancy shall not be more than 100 feet (30 480 mm).
4. The length of a common path of egress travel in a Group R-2 ~~or R-3~~ occupancy shall not be more than 125 feet (38 100 mm), provided that the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
5. The length of a common path of egress travel in a Group R-3 occupancy located in a mixed occupancy building shall not be more than 125 feet (38 100 mm), provided that the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

Commenter's Reason: The proponent was trying to clarify that the common path requirements for a Group R-3 occupancy is the same as a Group R-2 occupancy. We agree with that premise. However, Section 1021.2 states Group R-3 buildings are only required to have one exit. Therefore, the common path requirements do not apply to a building that only contains a Group R-3 occupancy. But, when a Group R-3 use is located in a mixed occupancy building, Section 1021.2 would not apply. This public comment attempts to clarify the original intent of the proponent and eliminate the potential conflict between Sections 1014.3 and 1021.1.

Final Action: AS AM AMPC____ D

E107–09/10
1015.2.1 (IFC [B] 1015.2.1)

Proposed Change as Submitted

Proponent: Homer Maiel, PE, CBO, City of San Jose**,** representing ICC Tri-Chapter (Peninsula, East Bay, Monterey Bay)

Revise as follows:

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

Exceptions:

1. Where exit enclosures are provided as a portion of the required exit and are interconnected by a 1-hour fire-resistance-rated corridor conforming to the requirements of Section 1018, the required exit separation shall be measured along the shortest direct line of travel within the corridor. The exit or exit access doorway to such enclosures shall not be less than 25 feet (7.62 m), measured in a straight line, from the exit or exit access doorway of another exit enclosure.
2. Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the exit doors or exit access doorways shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.

Reason: The current exception 1 allows the separation of two exits to be measured in a line of travel within a rated corridor. Although this length (traveling within a corridor) may be longer than one-half of the overall diagonal, the exit enclosures can be placed very close to each other. Thus a fire could compromise both exits. Furthermore, the travel distance in the corridor can be reduced to one third (per exception 2) which can further exacerbate this problem.

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

ICCFILENAME:Maiel-E1-1015.2.1

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: No technical justification was provided for the 25 feet separation requirement. Highrise provisions are already addressed in Section 403, and this requirement may be too restrictive for very small buildings. The term 'exit access' door is not applicable to exit enclosures.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Homer Maiel, PE, CBO, City of San Jose, representing ICC Tri-Chapter (Peninsula, East Bay, Monterey Chapters), requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

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

Exceptions:

1. Where exit enclosures are provided as a portion the required exit and are interconnected by a 1-hour fire-resistance- rated corridor conforming to the requirements of Section 1018, the required exit separation shall be measured along the shortest direct line of travel within the corridor. ~~The exit or exit access doorway to such enclosures shall not be less than 25 feet (7.62m), measured in a straight line, from the exit or exit access doorway of another exit enclosure.~~ The exit enclosures interconnected by a 1-hour fire-resistance-rated corridor shall be separated by a distance of not less than 30 feet, or not less than one-fourth of the length of the maximum overall diagonal dimension of the building or area served. This distance shall be measured in a straight line between the nearest points of the exit enclosure.
2. Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the exit doors or exit access doorways shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.

Commenter's Reason: The original proposal adding a sentence to Exception 1 is modified in this public comment to delete the original proposed wording and substitute wording identical to that used in 2009 IBC Section 403.5.1, Remoteness of exit stairway enclosures.

This substituted wording addresses the comments received from the ICC Egress Committee by using currently established exit enclosure separation distance criteria from Section 403.5.1, and by removing the term "exit access doorway". The fact that very small footprint buildings normally only need one exit per Table 1021.2, and that this provision only applies once two exits are required, should mitigate the concern raised about the separation being too restrictive when applied to very small footprint buildings.

The 2009 IBC's inclusion of a straight line separation requirement between exit enclosures applicable to High Rise Buildings (having an occupied floor located more than 75 feet above the lowest level of fire department vehicle access) is equally applicable in buildings of fewer stories, because of the code's underlying premise for having a minimum separation of exits is that all occupants should be reasonably assured to have the use of at least one of the two required exits.

Final Action: AS AM AMPC____ D

E108-09/10
1016.1, 1022.1 (IFC [B] 1016.1, 1022.1)

Proposed Change as Submitted

Proponent: Ronald W. Clements, Jr., representing Chesterfield County Virginia Building Inspection Department; Gregory R. Keith, Professional heuristic Development, representing The Boeing Company; and Michael L. Perrino, CBO, representing Code Consultants, Inc.; Sarah Rice, CBO, representing self

Revise as follows:

1016.1 (IFC [B] 1016.1) Travel distance limitations. Exits shall be so located on each story such that the maximum length of exit access travel, measured from the most remote point within a story along the natural and unobstructed path of egress travel to an exterior door at the level of exit discharge, an entrance to a vertical exit enclosure, an exit passageway, a horizontal exit, an exterior exit stairway or an exterior exit ramp shall not exceed the distances given in Table 1016.1.

Exceptions:

1. Travel distance in open parking garages is permitted to be measured to the closest riser of open exit stairways.
2. In outdoor facilities with open exit access components and open exterior exit stairways or exit ramps, travel distance is permitted to be measured to the closest riser of an exit stairway or the closest slope of the exit ramp.
3. ~~In other than occupancy Groups H and I, the exit access travel distance to a maximum of 50 percent of the exits is permitted to be measured from the most remote point within a building to an exit using unenclosed exit access stairways or ramps when connecting a maximum of two stories. The two connected stories shall be provided with at least two means of egress. Such interconnected stories shall not be open to other stories.~~
4. ~~In other than occupancy Groups H and I, exit access travel distance is permitted to be measured from the most remote point within a building to an exit using unenclosed exit access stairways or ramps in the first and second stories above grade plane in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The first and second stories above grade plane shall be provided with at least two means of egress. Such interconnected stories shall not be open to other stories.~~

Where applicable, travel distance on unenclosed exit access stairways or ramps and on connecting stories shall also be included in the 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 stairway.

1022.1 (IFC [B] 1022.1) Enclosures required. Interior exit stairways and interior exit ramps shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. Exit 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 exit enclosure shall include any basements but not any mezzanines. Exit enclosures shall have a fire-resistance rating not less than the floor assembly penetrated but need not exceed 2 hours. Exit enclosures shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1023, except as permitted in Section 1027.1. An exit enclosure shall not be used for any purpose other than means of egress.

Exceptions:

1. <u>In other than Group H and I occupancies, stairways and ramps that serve only one adjacent story need not be enclosed. Any two such interconnected stories shall not be open to other stories.</u> ~~In all occupancies, other than Groups H and I occupancies, a stairway is not required to be enclosed when the stairway serves an occupant load of less than 10 and the stairway complies with either Item 1.1 or 1.2. In all cases, the maximum number of connecting open stories shall not exceed two.~~
   - ~~1.1. The stairway is open to not more than one story above its level of exit discharge, or~~
   - ~~1.2. The stairway is open to not more than one story below its level of exit discharge.~~
2. Exits in buildings of Group A-5 where all portions of the means of egress are essentially open to the outside need not be enclosed.
3. Stairways serving and contained within a single residential dwelling unit or sleeping unit in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.
4. Stairways in open parking structures that serve only the parking structure are not required to be enclosed.
5. Stairways in Group I-3 occupancies, as provided for in Section 408.3.8, are not required to be enclosed.
6. Means of egress stairways as required by Section 410.5.3 and 1015.6.1are not required to be enclosed.
7. Means of egress stairways from balconies, galleries and press boxes as provided for in Section 1028.5.1, are not required to be enclosed.

Reason: This proposal is intended to correlate and correct fundamental interior exit stairway enclosure provisions. The history and technical inconsistency of current provisions were brought to light during ICC Code Technology Committee (CTC), Unenclosed Exit Stairway Study Group discussions associated with the drafting of a CTC code change proposal for the current (2009/2010) development cycle. One of the main charges of the study group was to validate the relationship between Chapter 10 required exit, access to exit, exit enclosure and exit access travel distance provisions. These provisions lie at the heart of means of egress design philosophy.

Unfortunately, the 2000 Edition of the IBC did not do a particularly good job of consolidating the means of egress provisions contained in the former model (legacy codes). This was owed to several factors, not the least of which was the significantly different systems or approaches to means of egress design used by the various contributing codes. This is probably best illustrated through the 2000 IBC exceptions to interior exit stairway enclosure requirements. In fact, none of the 2000 IBC general design related exceptions appeared in any of the legacy codes. The exceptions were spawned as compromises with former provisions. The BOCA building code fundamentally maintained that required interior exit stairways at all stories be enclosed. The ICBO building code, on the other hand, basically allowed that in other than Group H and I occupancies, exit enclosures were not required for interior stairways serving only one adjacent story. The 2000 IBC resolved the issue by permitting 50% of the required stairways to be unenclosed. That provision supported neither legacy philosophy.

In subsequent editions, the related provisions have been manipulated to a point that current requirements create or support no functional means of egress strategy. Unfortunately, with the inability of the IBC to effectively state its intent, practitioners have largely resorted to their specific legacy indoctrination resulting in varying interpretations. In the 2003 Edition, an additional exception to exit enclosure provisions allowed for all interior exit stairways to be unenclosed at the first and second stories of a sprinklered building of other than Group H and I occupancies. The 2006 Edition formalized the concept of accessing required exits from adjacent levels by way of unenclosed interior stairways and ramps. In the 2009 Edition of the IBC, two fundamental exceptions to exit enclosure requirements were moved to Section 1016.1, travel distance provisions. As has been previously mentioned, various provisions have been manipulated over time in an attempt to contort them to a desired technical end. Virtually all of these attempts have failed to recognize the delicate technical relationships between the fundamental means of egress concepts of numbers of exits, access to required exits and exit access travel distance.

The 2009/2010 CTC interior stairway proposal effectively establishes such a system with supporting terminology and requirements based on current IBC means of egress provisions. The study group intentionally avoided including substantial technical changes in its code change proposal, although a majority of members may have agreed with a certain concept or provision.

This proposal is intended to further cultivate and clarify the IBC system of means of egress design. Essentially, it allows for a general two-story exception to the enclosure of required interior exit stairways in other than Group H and I occupancies. This arguably represents the cumulative impact of numerous current exceptions addressing unenclosed exits or access to exits. It also serves to reinforce access to exits at adjacent building level provisions. The ultimate goal is to require that all interior exit stairways (required exit components) be enclosed without specifying their required location. Effectively, this allows a given means of egress design to dictate which exit components are employed and where. It also acknowledges that exits may be accessed from an adjacent story or level within prescribed exit access travel distance limitations.

This proposal effectively integrates the related legacy requirements with current IBC provisions. The reason that this provision was not included in the 2009/2010 CTC interior stairway proposal is that it represents a relaxation of current IBC exit enclosure requirements. Again, please bear in mind that current IBC enclosure requirements are based on an ICC Means of Egress Drafting Committee technical compromise. What is recommended in this proposal is identical in concept to that of the former Uniform Building Code. Such a means of egress design method has decades of distinguished performance history. It is also consistent with the means of egress philosophy promoted in the 2009/2010 CTC interior stairway proposal. That is, that formal exits, or access to exits, shall be provided in prescribed numbers from each building level. Unenclosed stairways and ramps (certain occupancies notwithstanding) may access exits at an adjacent building level within prescribed exit access travel distance limitations. Accordingly, buildings more than two stories in height will have not less than two enclosed interior exit stairways. It is acknowledged that such exit enclosures may not serve all building stores based on the specific building and means of egress design; however, such enclosed exits are within the exit access travel distance limitations and are not more than one level removed from the exit. It should be noted that when exit enclosures are employed to support a given design, they typically serve all building stories. Occasionally, security or privacy concerns dictate that access to enclosed interior exit stairways at all stories is undesirable. Nevertheless, occupants at those levels have access to exits comparable to that required for any building level. Additionally, the fire service has protected enclosures to serve as staging areas for the attack of a fire at, above or below the story of incident origin.

In summary, this proposal eliminates many of the technical inconsistencies associated with current means of egress provisions. This proposal, in combination with the 2009/2010 CTC interior stairway proposal, effectively repairs the IBC means of egress system design requirements and their technical relationships. Each of the proponents of this proposal was a voting member of the ICC Code Technology Committee, Unenclosed Exit Stairway Study Group and they represent a majority of voting study group members.

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

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: The revised text loses the allowance for fully sprinklered buildings to have two open exit access stairways. It is not clear if the stairways in Section 1022.1 Exception 1 are interior or exterior stairways, or if they are exit or exit access stairways. Technical justification should be provided to indicate that open stairways should be permitted between floors. It is not clear how this will work with the provisions accepted in E5-09/10. This proposal seems to be taking protection away from stairways.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Gregory R. Keith, Professional heuristic Development, representing the Boeing Company, Ron Clements, representing Chesterfield County Building Inspection Dept., Mike Perrino, representing Code Consultants, Inc., Sarah Rice, CBO, representing self, requests Approved as Modified by this public comment.

Replace the proposal with the following:

SECTION 1021(IFC [B] 1021)
NUMBER OF EXITS AND ~~CONTINUITY~~ EXIT CONFIGURATION

1021.1 (IFC [B] 1021.1) General. Each story and occupied roof shall have the minimum number of exits, or access to exits, as specified in this section. The required number of exits, or exit access stairways or ramps providing access to exits, from any story shall be maintained until arrival at grade or a public way. Exits or access to exits from any story shall be configured in accordance with this section.

1021.2 (IFC [B] 1021.2) Number of exits. Each story and occupied roof shall have a minimum of one exit, or one exit access stairway or ramp that provides access to an exit.

Two exits, or exit access stairways or ramps providing access to exits, from any story or occupied roof shall be provided where one of the following conditions exists:

1. The occupant load exceeds one of the values in Table 1021.2.
2. The exit access travel distance exceeds that specified in Table 1021.2 as determined in accordance with the provisions of Section 1016.1.
3. Helistop landing areas located on buildings or structures shall be provided with two exits, or exit access stairways or ramps providing access to exits.

Exceptions:

1. Rooms, areas and spaces complying with Section 1015.1 with exits that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit.
2. Group R-3 occupancy buildings shall be permitted to have a one exit.
3. Parking garages where vehicles are mechanically parked shall be permitted to have one exit.
4. Air traffic control towers shall be provided with the minimum number of exits specified in Section 412.3.
5. Individual dwelling units with a maximum occupant load of 20 in Group R-2 and R-3 occupancies shall be permitted to have one exit.
6. Group R-3 and R-4 congregate residences shall be permitted to have one exit.

Where one exit, or exit access stairway or ramp providing access to exits at other stories, is permitted to serve individual stories, mixed occupancies shall be permitted to be served by single exits provided each individual occupancy complies with the applicable requirements of Table 1021.2 for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1. Basements with one exit shall not be located more than one story below grade plane.

~~**1021.1 (IFC [B] 1021.1) Exits from stories.** All spaces within each story shall have access to the minimum number of approved independent exits as specified in Table 1021.1 based on the occupant load of the story. For the purposes of this chapter, occupied roofs shall be provided with exits as required for stories.~~

~~**Exceptions:**~~

1. ~~As modified by Section 403.15 (Additional exit stairway).~~
2. ~~As modified by Section 1021.2.~~
3. ~~Exit access stairways and ramps that comply with Exception 3 or 4 of Section 1016.1 shall be permitted to provide the minimum number of approved independent exits required by Table 1021 on each story.~~
4. ~~In Groups R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.~~
5. ~~Within a story, rooms and spaces complying with Section 1015.1 with exits that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit.~~

~~The required number of exits from any story shall be maintained until arrival at grade or the public way.~~

~~**TABLE 1021.1 (IFC [B] TABLE 1021.1)**~~
~~**MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD**~~

~~OCCUPANT LOAD (persons per story)~~	~~MINIMUM NUMBER OF EXITS (per story)~~
~~1-500~~	~~2~~
~~501-1,000~~	~~3~~
~~More than 1,000~~	~~4~~

~~**1021.1.2 (IFC [B] 1021.1.2) Parking structures.** Parking structures shall not have less than two exits from each parking tier, except that only one exit is required where vehicles are mechanically parked. Unenclosed vehicle ramps shall not be considered as required exits unless pedestrian facilities are provided.~~

~~**1021.1.3 (IFC [B] 1021.1.3) Helistops.** The means of egress from helistops shall comply with the provisions of this chapter, provided that landing areas located on buildings or structures shall have two or more exits. For landing platforms or roof areas less than 60 feet (18 288 mm) long, or less than 2,000 square feet (186 m^2) in area, the second means of egress is permitted to be a fire escape, alternating tread device or ladder leading to the floor below.~~

~~**1021.2 (IFC [B] 1021.2) Single exits.** Only one exit shall be required from Group R-3 occupancy buildings or from stories of other buildings as indicated in Table 1021.2. Occupancies shall be permitted to have a single exit in buildings otherwise required to have more than one exit if the areas served by the single exit do not exceed the limitations of Table 1021.2. Mixed occupancies shall be permitted to be served by single exits provided each individual occupancy complies with the applicable requirements of Table 1021.2 for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1. Basements with a single exit shall not be located more than one story below grade plane.~~

TABLE 1021.2 (IFC [B] TABLE 1021.2)
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT

STORY	OCCUPANCY	MAXIMUM OCCUPANTS (OR DWELLING UNITS) PER ~~FLOOR~~ STORY	~~AND~~ MAXIMUM EXIT ACCESS TRAVEL DISTANCE
First story or basement	A, B[b d], E[c e], F[b d], M, U, S[b d]	49 occupants ~~and~~	75 feet
	H-2, H-3	3 occupants ~~and~~	25 feet
	H-4, H-5, I, R	10 occupants ~~and~~	75 feet
	S	29 occupants ~~and~~	100 feet
Second story	B[b], F, M, S[a]	29 occupants ~~and~~	75 feet
	R-2	4 dwelling units ~~and~~	50 feet
Third story	R-2[a c]	4 dwelling units ~~and~~	50 feet
Fourth story and above	NP	NA	NA

For SI: 1 foot = 3048.mm

NP – Not Permitted

NA – Not Applicable

~~a. For the required number of exits for parking structures, see Section 1021.1.2.~~

~~b. For the required number of exits for air traffic control towers, see Section 412.3.~~

~~c.~~ 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 1026.

~~d.~~ b. Group B, F and S occupancies in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall have a maximum travel distance of 100 feet.

~~e.~~ c. Day care occupancies shall have a maximum occupant load of 10.

1021.2.1 (IFC [B] 1021.2.1) Three or more exits. Three exits, or exit access stairways or ramps providing access to exits at other stories, shall be provided from any story or occupied roof with an occupant load of 501-1,000. Four exits, or exit access stairways or ramps providing access to exits at other stories, shall be provided from any story or occupied roof with an occupant load greater than 1,000.

1021.2.2 (IFC [B] 1021.2.2) Additional exits. In buildings over 420 feet in height, additional exits shall be provided in accordance with Section 403.5.2.

Commenter's Reason: (Note: E108-09/10 is a companion code change proposal to E5-09/10. If E5-09/10--which was approved as submitted by the ICC Means of Egress Code Committee in Baltimore--is disapproved during the final action hearing process, this public comment will be withdrawn.) This proposal contains the same language as that included in E5-09/10 with the two following revisions: 1) The deletion of the last two sentences and exceptions in Section 1021.1. 2) The addition of the first sentence in Section 1021.2. Due to ICC public comment formatting protocols, the modification appears much more extensive and complex than it actually is.

The ICC Code Technology Committee (CTC) appointed an Unenclosed Exit Stairway Study Group to validate the relationship between Chapter 10 required exit, access to exit, exit enclosure and exit access travel distance provisions. Based on their research, that study group developed a comprehensive code change proposal E5-09/10 that was approved as submitted by the ICC Means of Egress Code Committee in Baltimore. During their discussions, the study group recognized that 2009 Section 1022 exit enclosure provisions were inconsistent with the exit/access stairway system requirements that had been restructured through E5-09/10. Specifically, it was felt that the IBC should not arbitrarily require enclosed interior exit stairways at each building level above the first story. Rather, it was felt that number of exit, separation of exit, exit access travel distance and vertical opening protection requirements should stand on their own merit based on the specific building design. This allows greater flexibility in building design while maintaining appropriate levels of occupant safety.

The study group, however, felt that this issue exceeded the scope of their reorganization effort and it should not be included in E5-09/10. A majority of the study group members did agree with the technical/philosophical concern and agreed to submit a separate code change that would eliminate the 2009 IBC provision that 50 percent of interior exit stairways be enclosed in other than Group H and I occupancies. This was submitted as proposal E108-09/10. It should be noted that the ICC Code Technology Committee agreed with that technical position. Unfortunately, the proposal was out of context when applied to 2009 means of egress provisions. The concept was intended to overlay E5-09/10 provisions; however, procedurally needed to modify current IBC requirements. This created a great deal of confusion with the code committee and assembly.

There is a very subtle and complicated relationship between various means of egress provisions. Through its organization and terminology, E5-09/10 greatly clarifies Chapter 10 design requirements. In their published committee action reason statement substantiating disapproval, the ICC Means of Egress Code Committee stated, "The revised text loses the allowance for fully sprinklered buildings to have two open exit access stairways." Such is not the case. E5 Section 1009.3, Exception 1 states, "In other than Group I-2 and I-3 occupancies, exit access stairways that serve, or atmospherically communicate between, only two stories, are not required to be enclosed." Another committee comment was that, "It is not clear if the stairways in Section 1022.1 Exception 1 are interior or exterior stairways, or if they are exit or exit access stairways." Section 1022 specifies that it applies to interior, exit stairways. That comment does reinforce the notion that current stairway/exit provisions are misunderstood. An additional comment stated, "Technical justification should be provided to indicate that open stairways should be permitted between floors." The IBC has always allowed for open stairways (and shaft openings) between floors under prescribed conditions. It was also observed that, "It is not clear how this will work with the provisions accepted in E5-09/10." This public comment provides that clarification by adjusting number of exits, access to exits and interior exit stairway provisions in the context of E5-09/10 and each other. The final committee comment was, "This proposal seems to be taking protection away from stairways." One of the primary reasons for assigning a study group to investigate this area of study was the widely varying opinions and applications of stairway enclosure requirements. In fact, E5 Section 1009.2.2 specifically states that all interior exit stairways shall be enclosed, with no exceptions. The only unenclosed or "open" stairways permitted by E5 are delineated in E5 Section 1009.3, exceptions that are based on current IBC stairway and shaft exceptions. In each case, such unenclosed stairways are "exit access stairways" by definition and travel distance is accounted for.

The means of egress design progression clarified by E5-09/10 begins with Section 1021 that requires specific numbers of exits, or access to exits, for each story or occupied roof. It is not intended to specifically require any particular exit component at a given building level. Rather, it is intended that the design of the building and means of egress system will dictate the type and location of various means of egress components. As regards interior exit stairways (formerly exit enclosures), they are required by need similar to other exit components.

Fundamentally, E5 Sections 1021.1 and 1009.3 generally allow access to exits at an adjacent building level in other than Group I-2 and I-3 occupancies. E5 Section 1021.3.1 clarifies that such access be by stairways or ramps and shall be included within the required exit access travel distance limitations. In multi-story buildings more than two stories in height, enclosed interior exit stairways would always be included in the building design. E5 Section 1022.1 requires that, once established, all interior exit stairways lead to, or be extended to, the exterior of the building.

This proposal effectively eliminates the current requirement generally mandating that at least 50 percent of exits from certain building levels be enclosed interior exit stairways. It is felt that exit access travel within two adjacent stories is appropriate and that individual exit components should not be specified by the IBC. Number of exits, separation of exits and exit access travel distance requirements will dictate the incorporation of exit components into the building design.

The approval as modified of E108-09/10 will coordinate with the system of means of egress design established through the approval of E5-09/10 by the ICC Means of Egress Code Committee. In combination, these proposals will greatly enhance the understanding and effectiveness of fundamental means of egress design.

Final Action: AS AM AMPC____ D

E109-09/10

1016.3 (New), Table 1016.3 (New), 1016.3.1 (New); [IFC [B] 1016.3 (New), Table 1016.3 (New), 1016.3.1 (New)]

Proposed Change as Submitted

Proponent: Jay Wallace, The Boeing Company and Gregory R. Keith, Professional heuristic Development, representing The Boeing Company

Add new text and table as follows:

1016.3 (IFC [B] 1016.3) Aircraft manufacturing facilities. In buildings used for the manufacturing of aircraft, exit access travel distances indicated in Section 1016.1 shall be increased in accordance with the following:

1. The building shall be of Type I or II construction.
2. Exit access travel distance shall not exceed the distances given in Table 1016.3.

TABLE 1016.3 (IFC [B] TABLE 1016.3)
AIRCRAFT MANUFACTURING EXIT ACCESS TRAVEL DISTANCE

HEIGHT (feet) [b]	MANUFACTURING AREA (sq. ft.) [a]					
	≥150,000	≥200,000	≥250,000	≥500,000	≥750,000	≥1,000,000
≥ 25	400	450	500	500	500	500
≥ 50	400	500	600	700	700	700
≥75	400	500	700	850	1,000	1,000
≥ 100	400	500	750	1,000	1,250	1,500

For SI: 1 foot = 304.8 mm

a. Contiguous floor area of the aircraft manufacturing facility having the indicated height.

b. Minimum height from finished floor to bottom of ceiling or roof slab or deck.

1016.3.1 (IFC [B] 1016.3.1) Associated areas. Egress from rooms, areas and spaces associated with the primary manufacturing area shall be permitted through such area having a minimum height as indicated in Table 1016.3. Exit access travel distance within the associated room, area or space shall not exceed that indicated in Table 1016.1 based on the occupancy classification of that associated area. Total exit access travel distance shall not exceed that indicated in Table 1016.3.

Reason: Many aircraft manufacturing buildings are unusually large due to the size of the commercial or military aircraft being produced. For instance, an assembled Boeing 747 has a tail height of over 63 feet. The rectangular footprint of a Boeing 747-800 is over 56,000 square feet.

Group F-1 occupancies greater than 150,000 square feet can have difficulty complying with 250 foot, sprinklered exit access travel distance limitations without incorporating exit passageways or horizontal exits into the design of the building means of egress system. The use of either exit component is somewhat problematic. Due to the compartmentalized nature of horizontal exits, they do not lend to aircraft production processes or movement of the finally assembled aircraft. For similar reasons, exit passageways are generally installed below the floor of the assembly level. The use of underground exit passageways during an emergency in a very high volume space is generally contrary to human nature. Once aware of an event, employees would instinctively evacuate the building at the level with which they are most familiar. Also, it is relatively easy to move away from the point of origin of a fire due to a person's sensory awareness within the entire open space. Given the fact that occupants sense safety as they move away from the fire, it is counter-intuitive to enter an underground area unless as a last resort.

Regardless of human nature, it must be demonstrated that high volume spaces provide a tenable environment for the evacuation or relocation of building occupants. The Boeing Company conducted smoke and temperature fire modeling using the NIST FDS (National Institute of Standards and Technology - Fire Dynamics Simulator) computer program.

In order to establish a performance baseline, a series of worse case scenarios were combined into the first test. We referenced previous Boeing proprietary laboratory test data on a large, 10 megawatt fire and duplicated and calibrated those data in our fire and smoke model. We placed the 10 megawatt event in an interior corner of a 400 foot x 400 foot building with exterior exit doors at the midpoints of each exterior wall. A corner fire was considered worse case because anticipated radiation off of adjacent 90° walls focuses and accelerates the progression of the fire.

The minimum ceiling height permitted in the means of egress by the International Building Code is 7'-6"--impractically low for an aircraft manufacturing area ceiling height. A similarly impractical ceiling height of 10 feet was selected as a worse case baseline for data determination purposes. Active fire suppression was not included in the model; therefore, the test fire burns until it is consumed. It should be noted that because sprinklers were not utilized in the model, they are not included as a requirement in the proposed provision. That being said, it is recognized that to achieve the qualifying contiguous areas of proposed Table 1016.3, the building would be sprinklered based on the fire area thresholds in Section 903. This proposal lets each issue stand on its own merit without introducing a new sprinkler trade-off. Also, for simplicity, it was also assumed that when smoke is introduced into the space, smoke detection would shut down any HVAC systems. Therefore, no mechanical ventilation is included in the model. The model assumed no fuel contribution by the building itself; therefore, the proposed provisions are limited to buildings of Type I or II construction.

Six modeling runs were conducted. One, for the 400 foot x 400 foot space with a 10 foot ceiling height for data base line purposes. Four additional runs were made for the same building area with ceiling heights of 25, 50, 75 and 100 feet for purposes of data development. One additional run was conducted for a 1,000,000 square foot building with a 100 foot ceiling height for data interpolation purposes. These data points were selected to support the area and height thresholds established in proposed Table 1016.3.

The 160,000 sf, 10' high ceiling baseline model indicates: (Maximum permitted travel distance: 200 feet [Group F-1, unsprinklered; Table 1016.1]. Based on an assumed rate of travel of 250 feet per minute, maximum travel time is 48 seconds.)

After 4 minutes, the exit nearest the point of origin of the fire is still completely free of smoke and heat from the fire.

Ceiling temperatures near the source immediately reach 165 degrees and the fire sprinkler system would activate.

The 160,000 sf, 25' high ceiling model indicates: (Maximum proposed travel distance: 400 feet [≥150,000 sf, ≥ 25'; Table 1016.3]. Based on an assumed rate of travel of 250 feet per minute, maximum travel time is 96 seconds.)

After 120 seconds, the smoke plume extends approximately 100 feet from the point of origin of the fire. The smoke level is at approximately 20 feet above the floor. After 360 seconds, the smoke level is at approximately 10 feet above the floor (360 - 96 = 264 ÷ 96 = 2.75 factor of safety).

After 150 seconds, the ceiling temperature has just reached 165 degrees directly above the point of origin of the fire. Sprinkler activation occurs 54 seconds after building evacuation has occurred. After 300 seconds, no ceiling temperature is greater than 127 degrees.

The 160,000 sf, 50' high ceiling model indicates: (Maximum proposed travel distance: 400 feet [≥150,000 sf, ≥ 25'; Table 1016.3]. Based on an assumed rate of travel of 250 feet per minute, maximum travel time is 96 seconds.)

After 120 seconds, the smoke plume extends approximately 100 feet from the point of origin of the fire. The smoke level is at approximately 42 feet above the floor. After 420 seconds, the smoke level is at approximately 25 feet above the floor (420 - 96 = 324 ÷ 96 = 3.37 factor of safety).

After 150 seconds, the ceiling temperature is 108 degrees directly above the point of origin of the fire. Sprinkler activation occurs 84 seconds after building evacuation has occurred. After 300 seconds, no ceiling temperature is greater than 98.5 degrees.

The 160,000 sf, 75' high ceiling model indicates: (Maximum proposed travel distance: 400 feet [≥150,000 sf, ≥ 25'; Table 1016.3]. Based on an assumed rate of travel of 250 feet per minute, maximum travel time is 96 seconds.)

After 120 seconds, the smoke plume extends less than 100 feet from the point of origin of the fire. The smoke level is at approximately 60 feet above the floor. After 420 seconds, the smoke level is at approximately 25 feet above the floor at one point (420 - 96 = 324 ÷ 96 = 3.37 factor of safety).

After 150 seconds, the ceiling temperature is 98.5 degrees directly above the point of origin of the fire. Sprinkler activation occurs 144 seconds after building evacuation has occurred. After 300 seconds, no ceiling temperature is greater than 98.5 degrees.

The 160,000 sf, 100' high ceiling model indicates: (Maximum proposed travel distance: 400 feet [≥150,000 sf, ≥ 25'; Table 1016.3]. Based on an assumed rate of travel of 250 feet per minute, maximum travel time is 96 seconds.)

After 120 seconds, the smoke plume extends less than 100 feet from the point of origin of the fire. The smoke level is at approximately 85 feet above the floor. After 420 seconds, the smoke level is at approximately 30 feet above the floor at one point (420 - 96 = 324 ÷ 96 = 3.37 factor of safety).

After 150 seconds, the ceiling temperature is 89 degrees directly above the point of origin of the fire. Sprinkler activation occurs 144 seconds after building evacuation has occurred. After 300 seconds, no ceiling temperature is greater than 89 degrees.

The 1,000,000 sf, 100' high ceiling model indicates: (Maximum proposed travel distance: 1,500 feet [≥1,000,000 sf, ≥ 100'; Table 1016.3]. Based on an assumed rate of travel of 250 feet per minute, maximum travel time is 360 seconds.)

After 360 seconds, the smoke plume extends less than 500 feet from the point of origin of the fire. The smoke level is at approximately 75 feet above the floor. After 720 seconds, the smoke level is still at approximately 75 feet above the floor (720 - 360 = 360 ÷ 360 = 1.0 factor of safety).

At 300 seconds, the ceiling temperature is 70 degrees directly above the point of origin of the fire. At 300 seconds, ceiling temperatures are dropping and no temperature is greater than 89 degrees.

Data clearly indicate that the proposed exit access travel distances for aircraft manufacturing facilities provide for a high for level of occupant tenability with a minimum factor of safety of 100 percent. It is intuitive that high volume spaces provide sufficient time for an occupant to safely access an exit. Nevertheless, The Boeing Company has reinforced that common sense through fire modeling that validates and quantifies that logic.

Most manufacturing facilities have other supporting occupancies including offices, break rooms, cafeterias, etc. This proposal would permit occupants of such associated spaces to egress through the manufacturing area with the increased exit access travel distance provided that the exit access travel distance within the associated areas does not exceed that specified in Table 1016.1 for the occupancy(s) under consideration.

Please do not be distracted by some of the larger exit access travel distance values contained in the proposed table. The longest allowance of 1,500 feet appears extreme compared to Table 1016.1 values. In reality, it only represents six minutes of travel time based on an assumed rate of travel of 250 feet per minute (*NFPA Life Safety Code Handbook* data), and it is only permitted in a building with a volume of over one hundred million cubic feet. Upon further examination, 71 percent of the cells of the proposed table require less than three minutes of exit access travel time for buildings having a volume of not less than 3.75 million cubic feet. The results of Boeing modeling runs would indicate that ceiling height is a major factor in the maintenance of occupant tenability during egress from a fire event. This proposal is limited to aircraft manufacturing facilities only. This is because of a high degree of occupant familiarity and the relatively low fuel loading compared with many other Group F-1 and S-1 occupancies.

In summary, the unique size of some aircraft manufacturing facilities inherently provides a tenable environment for building occupants as they travel to an exit. It is logical that spaces with higher ceilings provide for a greater level of occupant tenability than those with lower ceilings. Rather than arbitrarily selecting travel distance values based on former provisions or attempting an educated guess, The Boeing Company has conducted computer modeling in order to determine acceptable travel distances. Supporting data is available for review at http://www.boeing.com/nosearch/tds/. Approval of this proposal will acknowledge means of egress design issues associated with large area, high volume aircraft manufacturing spaces while providing a high degree of occupant safety during egress from such buildings.

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

ICCFILENAME:Fattah-E1-1017.5

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: Boeing should be commended for their fire model analysis on this issue, however, there are concerns about the assumptions in the model: for example what is the technical basis for the size of the fire; what are the tenability methods used; why the one location for the fire vs. moving it around; What is the growth of the fire. The American Society for Protection Engineers does have standards for performance based analysis or tenability methods from ISO that could be investigated. The egress analysis did not include people with mobility impairments or consideration of occupant delays upon alarm notification. The study should have a third party peer review. Quantitative information on the size and types of fuel loads and the resulting fire size should be provided – this is important as the industry moves to using more composite materials that may increase fuel loads. The technical data is applicable for large airplanes; however, a concern would be if this was applicable for small aircraft facilities. The anticipated occupant loading and how the occupants are notified were not included in the reason. Did the sprinkler systems activate?

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Jay S. Wallace, representing The Boeing Company, Gregory R. Keith, Professional heuristic Development, representing The Boeing Company, requests Approval as Submitted.

Commenter's Reason Supporting technical data, to include formal peer review, are available for review at http://www.boeing.com/nosearch/tds/.

The Boeing Company submitted Item E109-09/10 that is intended to allow for increased travel distances in high volume aircraft manufacturing buildings. To support its proposal, Boeing conducted smoke and temperature fire modeling using the NIST FDS (National Institute of Standards and Technology - Fire Dynamics Simulator) computer program. Boeing correlated initial model fire data to an actual burn test conducted at a certified test facility in Washington State.

In their published reason statement for disapproval, the ICC Means of Egress Code Committee stated, "Boeing should be commended for their fire model analysis on this issue, however, there are concerns about the assumptions in the model: for example what is the technical basis for the size of the fire; what are the tenability methods used; why the one location for the fire vs. moving it around; What is the growth of the fire. The American Society for Protection Engineers does have standards for performance based analysis or tenability methods from ISO that could be investigated. The egress analysis did not include people with mobility impairments or consideration of occupant delays upon alarm notification. The study should have a third party peer review. Quantitative information on the size and types of fuel loads and the resulting fire size should be provided – this is important as the industry moves to using more composite materials that may increase fuel loads. The technical data is applicable for large airplanes; however, a concern would be if this was applicable for small aircraft facilities. The anticipated occupant loading and how the occupants are notified were not included in the reason. Did the sprinkler systems activate?"

It was evident that the key to gaining committee confidence in the proposal was the performance of a third party peer review. Virtually all of the specific technical questions would be addressed through the performance of such a review. The Boeing Company has obtained the services of Arup, a widely renowned design and consulting firm to perform this peer review. Arup reviewed the committee comments and provided Boeing with a revised set of parameters for new modeling runs. Speaking specifically to expressed concerns:

What is the technical basis for the size of the fire? Our original model run used data from a certified fire test that generated a peak heat release of about 5 megawatts. The technical basis for the size of the fire was a number of actual fire tests previously conducted by The Boeing Company and FM Global, our insurance underwriter. That sized fire is typical for the materials used in aircraft production, to include flammable liquids, and associated support equipment. Prior to our initial simulation run, FM Global agreed with the assumed fire size. The test article was a support cart laden with plastics, flammable liquid containers and ordinary combustibles that are typically found on an aircraft manufacturing support cart. To dispel any concerns about the fire size, current model runs are based on a 10 megawatt, steady growth rate fire.

What is the growth of the fire? Fire growth of the 5 megawatt fire was based on the data from the actual fire test. The 10 megawatt fire simulation uses a fast growth T^2 (Time/Temperature) fire that goes steady state at 10 megawatts.

Quantitative information on the size and types of fuel loads and the resulting fire size should be provided – this is important as the industry moves to using more composite materials that may increase fuel loads. The issue of composite materials in aircraft production was investigated. It was determined that such materials perform very similarly to traditional aluminum or other lightweight metallic products. This is due to the fact that when used as an element of assembly, such parts have been previously fabricated and cured. The overriding factor remains that the Federal Aviation Administration regulates the combustibility limits of commercial aircraft. The Boeing Company and FM Global have determined that a fire will likely originate at some individual process point as opposed to the entire aircraft itself.

The technical data is applicable for large airplanes; however, a concern would be if this was applicable for small aircraft facilities. The applicability of proposed Table 1016.3 to buildings of not less than 150,000 square feet in area and not less than 25 feet in height, excludes small aircraft facilities. Typically, smaller facilities do not require increased travel distance allowances.

What are the tenability methods used? Smoke obscuration and heat gradients were modeled by the FDS software in volumes having ceiling heights of 10 to 100 feet. Data were collected over time of smoke density at various elevations including 6 feet above the floor. The model showed no smoke extending to within 6 feet above the floor for the 25 to 100 foot tall spaces within proposed travel times (distances) and only minimal smoke extending to within 6 feet of the floor for the 10 foot tall space within the currently permitted travel time (distance). Heat gradients were also similar with much of the heat dissipating through the large volumes. Occupant exiting was determined to be a minimum of 240 seconds (for the 10 foot ceiling) and for the most part unlimited at the 100 foot ceiling level test.

Why the one location for the fire vs. moving it around? A corner fire was chosen as it is recognized that it represents a worst case scenario due to the effect of the walls on the fire dynamics. FM Global concurred with this assumption prior to initial modeling. Since the worst case scenario was selected, we reasoned that moving the fire to other locations would only produce a better result.

The egress analysis did not include people with mobility impairments or consideration of occupant delays upon alarm notification. Due to the nature of the work, people with mobility impairments are typically not involved in assembly operations. Should that not be the case, the employment of a person with a disability would trigger Americans with Disabilities Act, Title I requirements. Practically speaking, in the event of evacuation of work areas, able-bodied employees assist those who are disabled. This practice is demonstrated repeatedly in our evacuation exercises. Regarding the issue of occupant delay due to alarm notification, in a large manufacturing facility of this nature, occupants would either become aware of the incident though their senses (sight, smell and hearing) or be directed by a supervisors, industrial fire brigades or municipal fire department personnel. In very large volume buildings of this nature that do not have combustible interior finishes or continuous fuel packages, there is not a risk of a fire outpacing evacuation.

The anticipated occupant loading and how the occupants are notified were not included in the reason. Occupant loads are considerably less than those determined based on the Table 1004.1.1 factor of one occupant per 100 square feet. Typical occupant densities are in the 300 – 500 square foot per occupant range. Due to the large area of these spaces, initial notification is based on situational and sensory awareness. Those nearest the event trigger an internal notification system.

Did the sprinkler systems activate? Obviously, an automatic sprinkler system is required in a building of this size. Sprinklers, however, were not considered in the model run. It was felt that the test results should be based on a "worse case" scenario. Sprinkler activation is considerably delayed due to the dissipation of the heat from the fire in buildings with large volumes and very high roof lines. Additionally, simulation data revealed that building evacuation normally occurred prior to sprinkler activation. Unlike a paint hangar or a maintenance and repair facility, the fire loading in this use is quite low. The aircraft have never been painted or fueled and are primarily constructed with non-combustible materials. There are no foam-extinguishing or deluge sprinkler systems in these buildings. Even though not included in the model, it is recognized that if sprinkler activation were to occur, it would certainly contribute positively to the emergency egress scenario.

The Boeing Company has addressed all of the concerns expressed by the ICC Means of Egress Code Committee during discussion of E109-09/10. Most importantly, a third party peer review was conducted to validate Boeing research. Approval of this proposal will provide for appropriate travel distance requirements for very specialized, high volume aircraft manufacturing facilities.

Final Action: AS AM AMPC____ D

E111-09/10
1018.1 (IFC [B] 1018.1)

Proposed Change as Submitted

Proponent: Mark Blanke, PE, New York State Div. of Code Enforcement and Administration

Revise as follows:

1018.1 (IFC [B] 1018.1) Construction. Corridors shall be fire-resistance rated in accordance with Table 1018.1. The corridor walls required to be fire-resistance rated shall comply with Section 709 for fire partitions.

Exceptions:

1. A fire-resistance rating is not required for corridors in an occupancy in Group E where each room that is used for instruction has at least one door directly to the exterior and rooms for assembly purposes have at least one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A fire-resistance rating is not required for corridors contained within a dwelling or sleeping unit in an occupancy in Group R.
3. A fire-resistance rating is not required for corridors in open parking garages.
4. A fire-resistance rating is not required for corridors in an occupancy in Group B which is a space requiring only a single means of egress complying with Section 1015.1.
5. A fire-resistance rating is not required for corridors where the length of the corridor is less than 2.5 times the least width.

Reason: This proposed amendment provides a uniform application for corridor enclosure requirements and offers a design option to enlarge a corridor width in lieu of providing a fire resistance rating.

The IBC definition of a corridor does not readily establish when a space should be considered a room or a corridor. This is because it does not acknowledge narrowness or length as corridor characteristics commonly found in most dictionaries. The definition of a corridor is "an enclosed exit access component that defines and provides a path of egress travel to an exit." Any room is an enclosed exit access component that provides a path of egress to an exit. The room becomes a corridor when it actually defines a path to an exit. But the question is what room configuration defines a path to an exit where it becomes a corridor that should be subject to fire-resistance rating requirements. This proposed amendment provides a length-to-width ratio that more clearly and uniformly establishes this threshold.

The purpose of fire rating corridor enclosures is to protect occupants traveling in a confined space from the hazards of fire. The more the space is confined the greater the hazard, and by contrast, decreasing the confinement reduces the hazard. If a corridor width is increased, it begins to resemble a room where it becomes reasonable to eliminate the fire-resistance rating of the enclosure. As an example, a corridor measuring 3'x25' serving an occupant load of 40 in an unsprinklered Group B occupancy is required to have 1-hour fire-resistance rated enclosures with fire

protection of door openings. Given the confined nature of this space, it is appropriate to require the necessary fire protection. However, if the corridor width were increased to 10 feet while maintaining its original length, the space becomes much less confined, less hazardous, and begins to resemble an adjoining or intervening room otherwise permitted without rated enclosures as part of an exit access. Some would argue that the enlarged space is no longer a corridor and not subject to the provisions of Section 1018.

The proposed amendment establishes a 2.5 length/width ratio as the transition for requiring fire-resistant rated corridor enclosures. This ratio was chosen because it is the same as that used in exception #3 of Section 1018.4 that would allow an unlimited dead end corridor where the length is less than 2.5 times the width. Given that the code has established this ratio as an appropriate exception to allow unlimited dead end corridors, it seems appropriate to use the same standard to corridor fire-resistance requirements.

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

ICCFILENAME:Blanke-E1-1018.1

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: The ratio 2.5:1 is commonly used for elevator lobbies off corridors for dead end provisions. If there is an exception for the construction this could be interpreted as requiring a rating for the corridor but not the elevator lobby. Defining corridors in this manner could affect rooms.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Mark Blanke, PE, New York State Div. of Code Enforcement and Administration, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1018.1 (IFC [B] 1018.1 Construction. Corridors shall be fire-resistance rated in accordance with Table 1018.1. The corridor walls required to be fire-resistance rated shall comply with Section 709 for fire partitions.

Exceptions:

1. A fire-resistance rating is not required for corridors in an occupancy in Group E where each room that is used for instruction has at least one door directly to the exterior and rooms for assembly purposes have at least one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A fire-resistance rating is not required for corridors contained within a dwelling or sleeping unit in an occupancy in Group R.
3. A fire-resistance rating is not required for corridors in open parking garages.
4. A fire-resistance rating is not required for corridors in an occupancy in Group B which is a space requiring only a single means of egress complying with Section 1015.1.
5. A fire-resistance rating is not required for corridors <u>which are not part of an elevator lobby and</u> where the length of the corridor is less than 2.5 times the least width.

Commenter's Reason: The committee's primary reason for disapproval is because the proposal may be interpreted to exempt fire-resistance rating requirements for fire partitions that enclose elevator lobbies. The modification should address this concern.

Final Action: AS AM AMPC____ D

E113-09/10
Table 1018.1 (IFC [B] Table 1018.1)

Proposed Change as Submitted

Proponent: Robert J Davidson, Code Consultant/Alan Shuman, President, representing the National Association of State Fire Marshals (NASFM): Thomas S. Zaremba, Roetzel & Andress, representing self

Revise as follows:

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

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system[c]
H-1, H-2, H-3	All	Not permitted	1
H-4, H-5	Greater than 30	Not permitted	1
A, B, ~~E~~, F, M, S, U	Greater than 30	1	0
E	Greater than 30	1	1
R	Greater than 10	Not permitted	0.5
I-2[a], I-4	All	Not permitted	0
I-I, I-3	All	Not Permitted	1[b]

a. For requirements for occupancies in Group I-2. see Sections 407.2 and 407.3.
b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.8.
c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 901.3.1.1 or 903.3.1.2 where allowed.

Reason:
Davidson/Shuman – This code change was proposed by several parties in the last development cycle as E117-07/08. Although half the Committee supported its adoption, the Chair broke a tie vote in favor of a recommendation of disapproval. At the Final Action Hearings, the Committee's recommendation was overturned, but a motion to "approve as submitted" failed to secure the 2/3 majority needed for adoption. The Membership voted 55% in favor of adoption.

There are good reasons that a solid majority of the Membership favors adopting this proposal. First, the E occupancies at issue represent structures built to house a dense population of children ranging from ages 4 through early teens. Group E occupancies typically have paper and other flammables hung from ceilings to floors throughout. Classrooms are filled with desks containing books, papers and other flammables. Science labs use chemicals and accelerants. Lunch rooms have stoves, ovens and trash cans spread throughout loaded with waste paper and other flammables. Theaters house clothing, wooden and cardboard props and paper banners strung from one end of the room to the other. Lockers contain books and hide things that are not easily monitored. Janitorial closets house cleaning solutions and solvents. Many Group E occupancies are multi-story buildings with classrooms on several floors.

Group E occupancies mix a high concentration of children with fuel loads on a daily basis. As budgets shrink, so do the number of adult supervisors. Our children are in schools because they are required to be there. We owe them a duty to ensure they are safe from the risk of fire while in school. We simply cannot wait for a catastrophe to protect children while at school.

Unfortunately the world of elementary, secondary and higher education learning has gone through tremendous changes in security measures undertaken, both operationally and hardware installations, due to the threat of violent acts committed against students and staff. Where we had educational facilities with highly effective fire drill evacuation procedures and actions during system activation, we now have written plans and training in place to ignore the activation of the fire alarm system if a "lockdown" has been declared because the activation of the fire alarm system may be a diversion to bring staff and students out into the open to serve as victims.

This is not a possible situation. This is a very real situation that occurs throughout the country in response to the acts of violence that have occurred at educational facilities. Though the exact procedure may vary site to site, the main premise of a "lockdown" is to gather staff and students into classrooms and offices and to lock the doors, preventing intruders from getting into the room and preventing staff and students from leaving the rooms until an all clear is announced. The staff and students are trained to ignore a fire alarm activation during a lockdown until they are ordered to evacuate after someone in authority, (could be a Principal or could be a Police Commander), makes a determination that the fire threat is real and that they must evacuate to survive the fire.

Because the students and staff will delay their evacuation while a fire is attacking the structure and potentially cutting off escape routes where corridors are not protected, this code change proposal will require all corridors serving an occupant load greater than 30 in group E educational occupancies to have 1 hour fire resistant rating except as allowed by Exception 1 to section 1018.1.

Exception 1 to Section 1018.1 is a legitimate exception for the one hour corridor fire resistant rating requirement, since it requires every classroom to have at least one door directly to the exterior and rooms used for assembly purposes have at least ½ of the required means of egress directly to the exterior as well. Under those conditions, there is no need for the students and other occupants to rely on exiting the building through the corridors since they can go directly to the exterior and move to a safe area of refuge. Once the announcement to evacuate occurs they can exit without being exposed to the fire threat potentially extended into the unprotected corridor.

However, if this is not the case, then the students, teachers, and other occupants of the educational occupancy must rely on the corridor system to exit safely from the building. In that case the paths of travel to get out of the building are restricted and the occupants may be exposed to the room of fire origin while trying to evacuate. Certainly, the basis for 1 hour fire resistive protection for corridors when the occupant load exceeds 30 is to provide for a reasonable level of protection for the occupants as they exit the building without having them unduly be exposed to a fire condition, water, and smoke which may impede their egress because they have delayed their evacuation due to a "lockdown".

It has been reported that there is an annual average of 14,700 fires in educational properties in the United States. The estimated average property loss from these fires is $85 million per year, and caused approximately 100 injuries. The costs of bussing students to alternate facilities, the impact of double sessions in schools to accommodate displaced students, and the mental aspect of the children who fell victim to the fires is less than construction costs of a 1 hour fire resistant corridor.

Nearly half (49.7 %) of these fires were incendiary or suspicious in nature. Structure fires can start in a wide variety of different areas. During 1999-2001, 23% of the fire origins were in bathrooms/locker rooms, 13% started in the kitchen area, 7% in the classrooms, and another 7% started in corridors. Even more disturbing are findings indicating that injuries per school fires are higher than those of ALL non-residential structure fires. Certainly, the fact that more than 70% of fires occur between 0800 and 1600, the hours students are most likely to be in school, and 16% of fires occur between 1700 and 2400; 12% occur between 2400 and 0800 shows that the threat of a fire occurring while children are present is real.

Currently, the International Building Code (IBC) allows the 1-hour fire –resistance rated corridor to be omitted where the building is protected by an automatic sprinkler system. We don't believe that such a "trade-off" is appropriate, especially in an educational occupancy where there are large numbers of children at relatively high density who are placed at risk in a fire situation. We believe that due to the expanding use of "lockdown" procedures a balanced design approach to providing life safety in educational occupancies is prudent so that the 1-hour fire resistance rated corridors can work in conjunction with the automatic sprinkler system to assure the level of life safety for the building's occupants intended by the code.

Note that an I-3 occupancy, (correctional centers, detention centers, jails, prerelease centers, prisons, and reformatories), requires the corridors to have 1 hour fire-resistance ratings when the occupancy is protected by a fire suppression system, regardless of the number of occupants. When a "lockdown" occurs in a school the staff and students are prisoners. They are prohibited from leaving the rooms or areas of protection until given permission (ordered) to do so, or because they are being held hostage. For consistency purposes the staff and students in educational occupancies deserve the same level of protection we provide to inmates. A comparison to the other I groups where evacuation of the occupants may be delayed or prevented because they are incapable of self preservation is also appropriate and substantiates a need to increase the protection level for corridors in the education group occupancies since in the case of "lockdowns" the staff and students are prevented from taking self preservation actions when the fire alarm activates until authorized, (ordered), to evacuate after an undetermined delay in time.

Other points to consider are the construction modifications made due to high-profile events and fuel loads in our schools. Events as the Columbine High School shootings, the need of school security can sometimes conflict with the requirements of fire safety. For example, exits may be restricted for security reasons preventing escape should a fire occur. Today's structures are unquestionably safer, yet the contents of today's classrooms are more combustible. Evidence suggests that fires in schools can spread far more rapidly due to the fuel load in the school buildings.

An additional benefit of the 1-hour fire resistance rated corridor is that it can assist fire fighters and tactical response team members in doing their job by providing a protected means of access to the interior of the building where they can perform their search and rescue missions, as well as fire fighting operations, in relative safety. Fire resistant corridors provide fire fighters and tactical response team members with additional time to conduct their life safety operations more effectively and safely.

From an economic perspective, fires rank as a major national problem, and since no individual safety measure is reliable all of the time, fire protection should and must be redundant. We are concerned that the compounding effect of sprinkler trade-offs could lead to greater risk to the life safety of the building occupants, especially if combined with the reduction in or the elimination of the 1 hour fire resistance rated corridors providing access to the exits or exit stairwells in an occupancy that routinely has staff and students drill and respond in real events to ignore fire alarm system activations. Too much reliance on automatic sprinkler systems may not be wise where life safety is a key consideration. We strongly believe that a balanced approach to fire and life safety in buildings should be provided when a fire occurs.

Zaremba -This code change was proposed by several parties in the last development cycle. Although half the Committee supported its adoption, the Chair broke a tie vote resulting in a Committee recommendation of disapproval. At the Final Action Hearings, however, the Committee recommendation was overturned. Although a motion to "approve as submitted" received a favorable vote of 55% of the Membership, it did not receive the 2/3 majority needed for adoption.

A majority of the Membership had good reason to favor the adoption of this proposal. First, the E occupancies at issue represent structures built to house a dense population of children ranging from ages 4 through early teens. Group E occupancies typically have paper and other flammables hung from ceiling to floor on every wall. Classrooms are filled with desks containing books, papers and other flammables. Science labs use chemicals and accelerants. Lunch rooms have stoves, ovens and trash cans spread throughout, all loaded with waste paper and other flammables. Theaters house clothing, wooden and cardboard props and paper banners strung from one end of to the other. Lockers contain books and hide things that are not easily monitored. Many Group E occupancies are multi-story buildings with relatively long corridors between classrooms and exit discharges.

In short, Group E occupancies represent a daily mix of high occupancy loads, children and significant fuel loads. As budgets shrink, so do the number of adult supervisors. E occupancies should provide children with an environment redundant in fire safety protections.

Especially because large numbers of children would be at risk in the event of a fire, redundant fire protection systems is warranted without waiting for a catastrophic loss of life to provide the motivation for making this change. Sprinklered Group E occupancies with corridors serving occupant loads of more than 30 children should include 1-hour fire resistance rated corridor construction.

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

ICCFILENAME:Zaremba-E2-Table 1018.1

Public Hearing Results

Committee Action: Disapproved

Committee Reason: If you take away the trade off for sprinklers vs. rated corridors the result will be many more schools designed without sprinklers – sprinklered schools are safer during a fire event than schools with rated corridors. The antidotal data vs. the NFPA data does not justify the significant increase in the cost of construction. In addition there will be issues with maintaining the fire resistance rating of the walls especially to automatic closers on the doors being in-place and functional. The fire doors with automatic closers will be a problem for access to classrooms. This would also require rated corridors in day care facilities, which would be excessive. Information was not provided for the justification for the 30 occupant exception for the proposed ratings

The proponents continually brought up the possibility of a fire event during a lockdown situation. Rating of a corridor is a means of egress issue, not a security issue. Rated corridors will not protect students from terrorists during a lockdown situation. If there is, a concern for a fire event during a lock-down that needs to be addressed with the emergency responders in the fire and safety evacuation plans, not through a corridor rating. In addition, there are other safety concerns in schools. Schools commonly have doors with vision panels and sidelights for observation of the classrooms and student/teacher interaction. Requiring rated doors at these locations would either significantly raise the costs for the opening protective and/or result in solid doors without this necessary observation feature.

Assembly Action: None

Individual Consideration Agenda

This item is on the agenda for individual consideration because public comments were submitted.

Public Comment 1:

Mike Ashley, representing Alliance for Fire & Smoke Containment & Control, Inc., requests Approval as Submitted.

Commenter's Reason: All exit corridors in E occupancies should be 1 hour protected construction, this does not include the small corridors that may serve offices such as principle, councilors or other small areas.

With today's security issues school systems do not evacuate the buildings immediately when the fire alarm is sounded. The students and staff are held in place until the administrative staff checks for the problem and then the students and staff exit if necessary.
Without a rated corridor the safety of the students and staff become comprised due to the extra time required to exit the building.

Second with main streaming of students with special needs extra time is required to get special needs students into wheel chairs or other types of transporting devices and exit the building. Actual surveys show that one child with special needs that is in his or her study desk requires up to 12 minutes to assist the child out of the desk and placed into the wheel chair and then pushed to the safe area outside the building. The one hour protected corridor allows this child and staff person the added safety from fumes and gases and smoke that will occur in a fire event.

Public Comment 2:

Thomas S. Zaremba, Roetzel & Andress, representing Glazing Industry Code Committee (GICC), a Committee of the Glass Association of North America (GANA); Robert J. Davidson, Davidson Code Concepts, LLC, representing self, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

TABLE 1018.1
CORRIDOR FIRE-RESISTANCE RATING

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system[c]
H-1, H-2, H-3	All	Not permitted	1
H-4, H-5	Greater than 30	Not permitted	1
A , B , F , M , S , U	Greater than 30	1	0
E	~~Greater than 30~~ All	1	1
R	Greater than 10	Not permitted	0.5
I-2[a],I-4	All	Not permitted	0
I-I, I-3	All	Not Permitted	1[b]

a. For requirements for occupancies in Group I-2. See Sections 407.2 and 407.3.
b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.8.
c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 901.3.1.1 or 903.3.1.2 where allowed.

Commenter's Reason: Adopting this proposal will significantly increase the fire safety of both life and property in new schools. An increased level of fire safety is clearly justified in schools because, every year, there are an average of 5,500 fires in schools throughout the Country. More than 70% of these fires happen while students are in the classrooms. Every year, these fires claim approximately 125 injuries and more than $50 Million in property damage. (See, Topical Fire Research Series, Vol. 8, Issue 1 (August 2007) U.S. Fire Administration, Department of Homeland Security; Report of School Fires prepared by Catastrophic Fire Prevention Task Force of the National Association of State Fire Marshalls 2002).

There is nothing anecdotal about the need for increased levels of fire safety in our schools. It is a fact that fires regularly occur in schools throughout our country. Their frequency, severity and the fact that they regularly occur while occupied by teachers and students, clearly separates E-occupancies from the other occupancies with which they are currently grouped in Table 1018.1.

If adopted, this proposal would require 1-hour fire-resistance rated corridors in E-occupancies with fire areas less than 12,000 square feet. (Only E-occupancies with fire areas greater than 12,000 square feet are required to have automatic sprinkler systems pursuant to section 903.2.3 of the IBC.) It would require both sprinkler systems and rated corridors in E-occupancies with fire areas greater than 12,000 square feet. This would provide the same type of redundancy for sprinklered E-occupancies that is currently required in R-occupancies and many I-occupancies. Since our children, and our tax dollars, are both at stake in the level of fire protection afforded to our schools, the adoption of this change is both warranted and appropriate.

The Committee disapproved this proposal claiming that only "anecdotal" evidence had been submitted in support. As set forth above, that is, simply, not correct. Educational occupancies are the subject of frequent fires that repeatedly result in significant injuries and property losses every year.

The Committee also confused "security" issues and "life safety issues" as they relate to lockdowns. Post-9/11 and post-Columbine, educational occupancies have been forced to retreat from procedures requiring occupants to immediately exit schools as soon as a fire alarm is sounded out of concern that either a fire will be set or fire alarms falsely activated in order to draw students out of their classrooms, into the open where they are

vulnerable to violent acts. This has resulted in the initiation of "lockdown" procedures typically requiring students to be locked in their classrooms following fire alarms until authorities can ascertain that the building is free of intruders. These new "security" procedures significantly increase the risks to life in the event of fire by significantly increasing the length of time that students are forced to remain in their classrooms before they are allowed to exit a burning building. These increased risks can and should be mitigated by requiring automatic sprinkler systems and one-hour fire-resistance rated corridors.

Adding rated corridors to sprinklered E-occupancies is not being proposed to somehow protect students from terrorists, as suggested by the Committee. It is being proposed to address the fact that numerous fires occur in our schools each and every year. Those fire risks are significantly increased by the realities of new lockdown procedures. This proposal is about safeguarding life and property in our schools from the risks of fire.

It was originally proposed that this change only apply to corridors serving occupant loads greater than 30. The Committee saw no justification for that exception and, accordingly, the proposal has been modified to remove it.

Final Action Agenda voters are strongly urged to vote against the standing motion to disapprove in order to vote in favor of a motion to approve E113 As Modified by this Public Comment.

Final Action: AS AM AMPC____ D

E114-09/10

1018.1, 1018.1.1 (New) [IFC [B] 1018.1, 1018.1.1 (New)]

Proposed Change as Submitted

Proponent: Robert J Davidson, Code Consultant, Alan Shuman, President, representing the National Association of State Fire Marshals (NASFM); Thomas S. Zaremba, Roetzel & Andress representing self

Add new text as follows:

1018.1 (IFC [B] 1018.1) Construction. Corridors, other than those regulated by Section 1018.1.1, shall be fire-resistance rated in accordance with Table 1018.1. The corridor walls required to be fire-resistance rated shall comply with Section 709 for fire partitions.

Exceptions:

1. A fire-resistance rating is not required for corridors in an occupancy in Group E where each room that is used for instruction has at least one door opening directly to the exterior and rooms for assembly purposes have at least one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A fire-resistance rating is not required for corridors contained within a dwelling or sleeping unit in an occupancy in Group R.
3. A fire-resistance rating is not required for corridors in open parking garages.
4. A fire-resistance rating is not required for corridors in an occupancy in Group B which is a space requiring only a single means of egress complying with Section 1015.1.

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

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system[c]
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1
A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	Not Permitted	0.5
I-2[a], I-4	All	Not Permitted	0
I-1, I-3	All	Not Permitted	1[b]

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

1018.1.1 (IFC [B] 1018.1.1) Category III and IV Buildings in Hurricane-Prone and Seismic Areas. Corridors in all Category III and Category IV buildings as defined in Table 1604.5 shall have a fire resistance rating of 1-hour if located in hurricane-prone regions defined in Section 1609.2 or assigned to seismic design categories C, D, E or F in Section 1613.5.6.

Reason:
Davidson, Shuman - Category III buildings are defined in Table 1604.5 as those "that represent a substantial hazard to human life in the event of failure." They include, but are not limited to:

- Public assembly occupancies with occupant loads greater than 300,
- Elementary or secondary schools or day care facilities with occupant loads greater than 250,
- Adult education facilities with occupant loads greater than 500,
- Group I-2 occupancies with occupant loads greater than 50, and
- Group I-3 occupancies.

Category IV buildings are those which are designated as essential facilities. "Essential Facilities" are defined in section 1602.1 as "buildings and other structures that are intended to remain operational in the event of extreme environmental loading from flood, wind, snow or earthquakes. These include, but are not limited to:

- Designated earthquake, hurricane or other emergency shelters,
- Designated emergency preparedness, communications and operations centers and other facilities required for emergency response, and
- Fire, rescue, ambulance and police stations and emergency vehicle garages.

In the face of impending natural disasters, residents regularly seek refuge in, or are evacuated from their homes to, Category III or IV buildings. At the same time, hurricanes and earthquakes regularly render roads impassable, often times cutting these evacuation shelters off from municipal and emergency medical, police and fire services. Even if these sites remain accessible by road, first responders may be unable to promptly respond when confronted with the wide spread devastations of a hurricane or earthquake.

Adopting this code change would ensure that redundant safety features, in the form of sprinklers and fire resistance rated corridors, are in place to ensure a safe evacuation of high occupancy buildings used as emergency shelters in hurricane and seismic areas.

Zaremba - Buildings and infrastructures can be severely damaged in hurricanes and earthquakes.

Category III buildings are those that represent a "substantial hazard to human life in the event of failure" and include buildings with high occupancy loads, for example, public assembly buildings with occupant loads greater than 300; elementary or secondary schools or day care facilities with occupant loads greater than 250; adult education facilities with occupant loads greater than 500; Group I-2 occupancies with occupant loads greater than 50; and Group I-3 occupancies.

Category IV buildings are specifically intended to provide shelter in natural catastrophes. These are "essential facilities," defined in section 1602.1 as those intended to remain operational throughout a natural disaster. They include designated earthquake, hurricane or other emergency shelters; designated emergency preparedness, communications and operations and emergency response centers; and fire, rescue, ambulance and police stations and emergency vehicle garages.

Hurricanes and earthquakes can quickly interrupt utilities, including power, communications and water supplies, while slowing or prohibiting travel to and from these facilities. A fire in a Category III or IV building during or after a hurricane or seismic event could result in a significant loss of life when large concentrations of people, including first responders, or those suffering from disabilities, are forced to evacuate under circumstances where communications and sprinkler systems are inoperable and emergency fire and rescue services are inaccessible or unavailable. To ensure safe evacuations in the event of fire, this proposal would require Cat. III and IV buildings in hurricane prone and seismic areas to include 1-hour fire-resistance rated corridors.

Cost impact: The code change proposal will increase the cost of construction.

ICCFILENAME:Davidson-Shuman-E2-1018.1.1

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: Buildings in earthquake and hurricane areas are already designed to a higher standard, therefore this rated corridor requirement is not needed. Structural robustness is not related to fire-resistance-rated corridors. Technical justification was not providing indicating that the fire incidences are higher for the specified buildings in earthquake and hurricane areas. This would require rated corridors in schools, police stations, fire stations, all emergency shelters (i.e., churches, schools, community centers, football stadiums). This would be a serious operational issue for Group I-2 functions where this would require rated corridors.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Thomas S. Zaremba, Roetzel & Andress, representing Glazing Industry Code Committee (GICC), a Committee of the Glass Association of North America (GANA); Robert J. Davidson, Davidson Code Concepts, LLC, representing self, requests Approval as Submitted.

Commenter's Reason: This proposal will increase the fire safety of high hazard Category III and IV Buildings found in hurricane and seismic zones. In that regard, it proposes that occupants and property in these types of Buildings be protected from the risks of fire by 1-hour fire resistance rated exit corridors since hurricanes and earthquakes often cause a loss of water supply to sprinkler systems.

Category III and IV buildings are well defined in Chapter 16 of the IBC. Category III buildings are those that represent "a substantial hazard to human life in the event of failure" and Category IV buildings are those designated as "essential facilities." See, Table 1604.5

In recommending disapproval, the Committee mistakenly believed that this proposal was somehow attempting to use the fire resistance ratings of exit corridors to address the "structural robustness" of Category III and IV buildings. While it may be understandable for the Committee to make

such a mistake since this proposal did not come before the Committee until after 10:00 o'clock at night, it is clear that this proposal has nothing to do with "structural robustness." It proposes 1-hour fire resistance rated corridors to address and enhance the **fire** safety of Category III and IV buildings found in areas that suffer from a high risk that water supplies to their sprinkler systems will be lost during or after seismic and hurricane events.

Simply put, water supplies upon which sprinkler systems depend are often interrupted as a result of hurricanes and earthquakes. This means that occupants and property in Category III and IV buildings will be subjected to a higher risk of loss from fire if those buildings are only protected by sprinkler systems. That risk is magnified by the fact that during natural disasters, fire service and other emergency service response times are frequently delayed by overwhelming numbers of emergency calls; losses of power and communications; impassable roads; and many other dangers incident to the delivery of emergency services during natural disasters. The fire safety of these high hazard Category III and IV buildings can be significantly increased by requiring exit corridors with 1-hour fire resistance ratings.

Category III and IV buildings are very likely to be occupied during or after natural disasters. A failure of Category III or IV buildings to protect occupants from the risk of fire after a loss of water supply would represent "a substantial hazard to human life" and a substantial risk to the ability to provide essential services to those affected by natural disasters.

Final Action Agenda voters are strongly urged to vote against the standing motion to disapprove in order to vote in favor of a motion to approve E114 "As Submitted."

Final Action: AS AM AMPC____ D

E115-09/10

1018.2, Table 1018.2 (New) [IFC [B] 1018.2, Table 1018.2 (New)]

Proposed Change as Submitted

Proponent: John England, MCO, England Enterprises Inc., representing self

1. Revise as follows:

1018.2 (IFC [B] 1018.2) Corridor width. The minimum corridor width shall be as determined in Section 1005.1, but not less than specified in Table 1018.2 ~~but not less than 44 inches (1118 mm).~~

~~**Exceptions:**~~

1. ~~Twenty-four inches (610 mm)—For access to and utilization of electrical, mechanical or plumbing systems or equipment.~~
2. ~~Thirty-six inches (914 mm)—With a required occupant capacity of less than 50.~~
3. ~~Thirty-six inches (914 mm)—Within a dwelling unit.~~
4. ~~Seventy-two inches (1829 mm)—In Group E with a corridor having a required capacity of 100 or more.~~
5. ~~Seventy-two inches (1829 mm)—In corridors and areas serving gurney traffic in occupancies where patients receive outpatient medical care, which causes the patient to be not capable of self-preservation.~~
6. ~~Ninety-six inches (2438 mm)—In Group I-2 in areas where required for bed movement~~

2. Add new Table as follows:

Table 1018.2 (IFC [B] Table 1018.2)
MINIMUM CORRIDOR WIDTH

Occupancy	Width (inches)
Any facilities not listed below	44 inches
Access to and utilization of mechanical, plumbing or electrical systems or equipment	24 inches
Occupant load less than 50	36 inches
Within a dwelling unit	36 inches
Group E with occupant load of 100 or more	72 inches
Group B or I-2 outpatient medical facilities where patients are moved on gurneys	72 inches
Group I-2 in areas where care recipients are moved on beds	96 inches

For SI: 1 inch=25.4 mm

Reason: A table will make it easier to understand.

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

Analysis: The terminology used in the text of the exceptions is different than the terminology used in the proposed table. A concern would be if this change in terminology change the original interpretation of these exceptions.

ICCFILENAME:England-E1-1018.2

Public Hearing Results

Committee Action: **Approved as Submitted**

Committee Reason: Placing the base requirement and exceptions in a table makes the requirements easier to understand.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Lawrence G. Perry, AIA, representing Building Owners and Managers Association (BOMA) International, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

Table 1018.2 (IFC [B] Table 1018.2)
MINIMUM CORRIDOR WIDTH

Occupancy	Width (inches)
Any facilities not listed below	44 inches
Access to and utilization of mechanical, plumbing or electrical systems or equipment	24 inches
~~Occupant load~~ With a required occupancy capacity less than 50	36 inches
Within a dwelling unit	36 inches
In Group E with a corridor having a required capacity ~~occupant load~~ of 100 or more	72 inches
In corridors and areas serving gurney traffic in occupancies where patients receive outpatient medical care, which causes the patient to be not capable of self-preservation ~~Group B or I-2 outpatient medical facilities where patients are moved on gurneys~~	72 inches
Group I-2 in areas where required for bed movement ~~care recipients are moved on beds~~	96 inches

For SI: 1 inch=25.4 mm

Commenter's Reason: The proposed modification is intended to address a valid question raised by the staff comment. While the intent of the code change is purely editorial, the slight differences in the current and revised text raises enough questions so that it won't consistently be interpreted the same as current code. One example: current code says that in Group E, corridors with a required capacity of 100 occupants have a minimum 72" width. In the original proposal, this is instead stated as a minimum 72" corridor width for ' Group E with an occupant load of 100 or more'. This bases the corridor width on the overall occupant load of the occupancy, rather than the required capacity of the specific corridor. The modification simply places wording identical to the current text into the newly proposed table.

Final Action: AS AM AMPC____ D

E122-09/10, Part I
1021.2 (IFC [B] 1021.2)

NOTE: PART II DID NOT RECEIVE A PUBLIC COMMENT AND IS ON THE CONSENT AGENDA. PART II IS REPRODUCED FOR INFORMATIONAL PURPOSES ONLY FOLLOWING ALL OF PART I.

Proposed Change as Submitted

Proponent: Christine Reed and Stuart Tom, P.E., CBO, representing the California Fire Chiefs Association and the Los Angeles Basin Chapter, ICC; Jonathan C. Siu, representing City of Seattle, Department of Planning and Development

PART I – IBC MEANS OF EGRESS

Revise as follows:

1021.2 (IFC [B] 1021.2) Single exits. ~~Only one exit shall be required from Group R-3 occupancy buildings or from stories of other buildings as indicated in Table 1021.2.~~ Occupancies shall be permitted to have a single exit in buildings otherwise required to have more than one exit if the areas served by the single exit do not exceed the

limitations of Table 1021.2. Mixed occupancies shall be permitted to be served by single exits provided each individual occupancy complies with the applicable requirements of Table 1021.2 for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1. Basements with a single exit shall not be located more than one story below grade plane.

Reason:
PART I –Section 1015.1 and Section 1021.1 both contain identical, very specific, exception language that allows Group R-3 occupancies to be permitted with one means of egress provided the occupant load is limited to a maximum of 20 and the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. As currently written, Section 1021.2 creates two (2) potential conflicts.

In one case, a potential conflict arises if the stricken sentence remains because of the reference "… as indicated in Table 1021.2". Table 1021.2 limits the number of occupants on the first story or basement of Group R occupancies to a maximum of 10 and a maximum travel distance of 75 feet. This conflict would result in the severe limitation of the size of 1-story Group R-3 occupancies with one means of egress to only 2,000 square feet, which is contrary to Sections 1015.1 and 1021.1 which allow up to 4,000 square feet in buildings equipped throughout with an automatic sprinkler system.

In the second case, a potential conflict arises if the stricken sentence remains because some readers might ignore the reference " … as indicated in Table 1021.2" and provide only one means of egress for Group R-3 occupancy buildings regardless of size. This would be in conflict with Sections 1015.1 and 1021.1 which impose a size limitation of 4,000 square feet based upon the maximum occupant load limit of 20, considering the occupant load factor of 200 square feet per occupant as indicated in Table 1004.1.1.

This proposal eliminates a confusing sentence within Section 1021.2, that is currently in conflict with Sections 1015.1 and 1021.1, thereby making all three sections consistent.

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

ICCFILENAME:tom-reed-siu-E1-1021.2

Public Hearing Results

PART I IBC MEANS OF EGRESS
Committee Action: **Approved as Submitted**

Committee Reason: The first sentence in Section 1021.2 is redundant with the text in Section 1021.1 and 1015.1. This should be correlated with the committee actions on E119 and E121.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Steve Orlowski, representing National Association of Home Builders (NAHB), requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1021.2 (IFC [B] 1021.2) Single exits. Only one exit shall be required from one- and two-family dwellings and townhouses. All other occupancies shall be permitted to have a single exit in buildings otherwise required to have more than one exit if the areas served by the single exit do not exceed the limitations of Table 1021.2. Mixed occupancies shall be permitted to be served by single exits provided each individual occupancy complies with the applicable requirements of Table 1021.2 for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1. Basements with a single exit shall not be located more than one story below grade plane.

Commenter's Reason: Based on the supporting arguments made by the original proponent, NAHB considers this suggested modification to be in keeping with the proper style of code language and appropriately deals with the two concerns of the original proponent. This modification correctly address the concerns that there are times when a group R-3 occupancies need to require an additional exit based on its use, while still exempting one- and two- family dwellings and townhouses from the requirements of Table 1021.2 and allowing for a single exit.

Final Action: AS AM AMPC____ D

NOTE: PART II REPRODUCED FOR INFORMATIONAL PURPOSES ONLY – SEE ABOVE

E122-09/10, PART II – IRC BUILDING/ENERGY
R311.4

Proponent: Christine Reed and Stuart Tom, P.E., CBO, representing the California Fire Chiefs Association and the Los Angeles Basin Chapter, ICC; Jonathan C. Siu, representing City of Seattle, Department of Planning and Development

Revise as follows:

R311.4 Vertical egress. Egress from habitable levels including habitable attics and basements not provided with an egress door in accordance with Section R311.2 shall be by ~~a~~ one or more ramps in accordance with Section R311.8 or ~~a~~ one or more stairways in accordance with Section R311.7 or both. Habitable levels larger than 1,000 square feet (92.9 m^2) located more than one story above or below an egress door shall be provided with not less than two means of egress.

Reason:
PART II –The IRC fails to address the fact that a single exit may not be sufficient for every R-3 occupancy One- or Two- Family Dwelling. While a single exit may be suitable for most dwellings, the same cannot be said of all dwellings. The IRC establishes the standards that will also apply to very large dwellings and dwellings constructed on steep lots, where egress design becomes more critical.

In comparison, the IBC addresses the need for a second means of egress through Sections IBC 1015.1 and IBC 1021.1. Both of these provisions will require a second means of egress from a Group R-3 occupancy if the occupant load exceeds 20 persons. Furthermore, since the IBC utilizes the 3-part means of egress design concept, Group R-3 occupancies regulated by the IBC would be required to have both means of egress comply with all applicable provisions of IBC Chapter 10.

Since the IRC does not utilize the 3-part means of egress concept nor the occupant load concept, it is not practical to use the same approach as the IBC in establishing whether a second means of egress is required in R-3 occupancies up to 3-stories in height. Furthermore, the need for a second means of egress is most critical on floors that are located more than one story above or below an egress door. This proposal does not require a second means of egress from 1- or 2- story Group R-3 occupancies because the length of vertical egress travel is inherently limited to a maximum of one story in such buildings. This proposal will only require a second means of egress from habitable levels that are located more than one level above or below the egress door, and only if such levels exceed 1,000 square feet in area. Egress from such occupied floor levels becomes more critical because of the combination of increased vertical egress travel combined with the increased travel distance within a large floor area exceeding 1,000 square feet.

The IRC also fails to adequately address egress from Group R-3 occupancy dwellings constructed on steep hillside lots, especially lots located on the down-slope side of a street. Many jurisdictions throughout the country have steep hillside residential areas, where it is common to construct homes on the down-slope side of a street with the topmost floor located at street level and two additional floors located below street level. Often such down-slope lots are so steep that there is no usable rear yard. Consequently, homes constructed on such steep terrain typically do not have a rear door (that could serve as a second means of egress), because a door that leads to a steep and unusable rear yard is not likely to be installed. This proposal would require such occupied levels that are greater than 1,000 square feet in area to be provided with a second means of egress.

This code change proposal will not affect the majority of Group R-3 occupancy One- and Two- Family Dwellings regulated by the IRC.

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

PART II- IRC B/E
Committee Action: **Disapproved**

Committee Reason: The committee recognizes there is a need for this in large mansions. However, this proposal is unclear and confusing on how to apply. The 1000 square foot threshold is an arbitrary number. The remoteness of the two means of egress is not addressed. There is no data for deaths or injuries associated with this situation.

Assembly Action: **None**

E124-09/10
1022.3, 1022.4 (IFC [B] 1022.3, 1022.4)

Proposed Change as Submitted

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company

Revise as follows:

1022.3 (IFC [B] 1022.3) Openings ~~and penetrations~~. Exit enclosure opening protectives shall be in accordance with the requirements of Section 715.

Openings in exit enclosures other than unprotected exterior openings shall be limited to those necessary for exit access to the enclosure from normally occupied spaces and for egress from the enclosure. There shall be no communicating openings, whether protected or not, between adjacent exit enclosures.

Elevators shall not open into an exit enclosure.

1022.4 (IFC [B] 1022.4) Penetrations. Penetrations into and ~~openings~~ through an exit enclosure are prohibited except for ~~required exit doors,~~ equipment and duct work necessary for independent pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication and electrical raceway serving the exit enclosure and terminating at a steel box not exceeding 16 square inches (0.010 m^2). Such penetrations shall be protected in accordance with Section 713.

There shall be no penetrations ~~or communicating openings~~, whether protected or not, between adjacent exit enclosures.

Reason: The current title of Section 1022.3 is somewhat misleading in that it references "penetrations." No provisions in Section 1022.3 apply to penetrations and there are no cross-references to Section 713. Section 1022.4, however, does address the penetration provisions applicable to exit enclosures. Technical references to openings in Section 1022.4 have either been removed or relocated to Section 1022.3. For instance, the reference to "required exit doors" in the first sentence has been eliminated because that concern is addressed in the second paragraph of Section 1022.3 that limits openings into an exit enclosure to those necessary for egress. Approval of this proposal will reduce confusion and assist users in the correct identification of applicable exit enclosure opening and penetration requirements.

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

ICCFILENAME:Keith-E8-1022.3

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: The current text for openings and penetrations is clear. It is not clear what the proponent was trying to address in the revisions.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Gregory R. Keith, Professional heuristic Development, representing The Boeing Company, requests Approval as Submitted.

Commenter's Reason: It appears that the ICC Means of Egress Code Committee may not have understood the intent of Item E124-09/10. In their published reason statement for disapproval, it was stated, "The current text for openings and penetrations is clear. It is not clear what the proponent was trying to address in the revisions.

The proposal was intended to be purely editorial in nature. It contained no technical changes. The intent of the proposal was to organize applicable technical provisions in the proper section. Currently, Section 1022.3 is titled, "Openings and penetrations"; however, it contains no requirements pertinent to penetrations and there are no cross references to Section 713. Therefore, "penetrations" was removed from the section heading. Section 1022.4 is titled, "Penetrations"; however, it contains some technical provisions applicable to openings. Those provisions have been properly relocated in Section 1022.3, Openings.

E124-09/10 simply creates proper section headings and correctly places applicable technical requirements within those sections. Approval of this proposal will reduce confusion and assist users in the correct identification of applicable exit enclosure opening and penetration requirements.

Final Action: AS AM AMPC____ D

E126-09/10
1022.4, 1023.6 (IFC [B] 1022.4, 1023.6)

Proposed Change as Submitted

Proponent: Matthew Davy, PE, Schirmer Engineering Corporation, representing self

Revise as follows:

1022.4 (IFC [B] 1022.4) Penetrations. Penetrations into and openings through an exit enclosure are prohibited except for required exit doors, equipment and ductwork necessary for independent ventilation or pressurization, sprinkler

piping, standpipes, electrical raceway for fire department communication systems and electrical raceway serving the exit enclosure and terminating at a steel box not exceeding 16 square inches (0.010 m^2). Such penetrations shall be protected in accordance with Section 713. There shall be no penetrations or communication openings, whether protected or not, between adjacent exit enclosures.

Exception: Membrane penetrations shall be permitted on the outside of the exit enclosure. Such penetrations shall be protected in accordance with Section 713.3.2.

1023.6 (IFC [B] 1023.6) Penetrations. Penetrations into and openings through an exit passageway are prohibited except for required exit doors, equipment and ductwork necessary for independent pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication and electrical raceway serving the exit passageway and terminating at a steel box not exceeding 16 square inches (0.010m^2). Such penetrations shall be protected in accordance with Section 713. There shall be no penetrations or communicating openings, whether protected or not, between adjacent exit passageways.

Exception: Membrane penetrations shall be permitted on the outside of the exit passageway. Such penetrations shall be protected in accordance with Section 713.3.2.

Reason: The purpose of Sections 1022.4 and 1023.6 is to limit through penetrations into an exit enclosure or exit passageway; however, membrane penetrations should be permitted on the outside of the exit enclosure or exit passageway. As currently written, a pull station next to a door into the stair, fire hose cabinets, fire extinguisher cabinets, request-to-exit devices related to access control locks, notification appliances, etc., are not permitted on the outside of the exit enclosure. This exceptions needs to clarify the intent of Sections 1022.4 and 1023.6.

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

ICCFILENAME:Davy-E1-1023.5

Public Hearing Results

Committee Action: **Approved as Submitted**

Committee Reason: Membrane penetration in the walls of exit enclosures is a common practice. The allowance maintains a reasonable level of safety.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Ali M. Fattah, P.E., City of San Diego, Development Services Department, representing San Diego Area Chapter of ICC requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1022.4 (IFC [B] 1022.4) Penetrations. Penetrations into and openings through an exit enclosure are prohibited except for required exit doors, equipment and ductwork necessary for independent ventilation or pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication systems and electrical raceway serving the exit enclosure and terminating at a steel box not exceeding 16 square inches (0.010 m2). Such penetrations shall be protected in accordance with Section 713. There shall be no penetrations or communication openings, whether protected or not, between adjacent exit enclosures.

E**xception:** Membrane penetrations for manual fire alarm boxes, access or egress control devices, emergency communication devices and fire alarm notification appliances shall be permitted on the outside of the exit enclosure. Such penetrations shall be protected in accordance with Section 713.3.2.

1023.6 (IFC [B] 1023.6) Penetrations. Penetrations into and openings through an exit passageway are prohibited except for required exit doors, equipment and ductwork necessary for independent pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication and electrical raceway serving the exit passageway and terminating at a steel box not exceeding 16 square inches (0.010m2). Such penetrations shall be protected in accordance with Section 713. There shall be no penetrations or communicating openings, whether protected or not, between adjacent exit passageways.

Exception: Membrane penetrations for manual fire alarm boxes, access or egress control devices, emergency communication devices and fire alarm notification appliances shall be permitted on the outside of the exit passageway. Such penetrations shall be protected in accordance with Section 713.3.2.

Commenter's Reason: This Code change as proposed and approved by the Means of Egress Committee is too broad and allows any membrane penetration into exit enclosures and exit passageways that are designed to allow occupants to egress through fire floors or through areas under fire. These exit elements are highly protected, have unlimited travel distance and send occupants through areas of the building that may be under fire conditions. Other egress components protect exit ways from smoke. The proponent testified and that it would be difficult to place a recessed manual fire alarm boxes immediately adjacent to exit doors into exit enclosures as is required in chapter 9. This section as approved will not prevent medicine cabinets, electrical panels, or a whole host of other large items from breaching the outer membrane of the exit passageway. Fire extinguishers and fire hose cabinets do not have to be installed on the walls of the exit enclosure.

Final Action: AS AM AMPC____ D

E129-09/10
1023.3 (IFC [B] 1023.3)

Proposed Change as Submitted

Proponent: Michael DiMascio, Arup, representing self

Revise as follows:

1023.3 (IFC [B] 1023.3) Construction. Exit passageway enclosures shall have walls, floors and ceilings of not less than 1-hour fire-resistance rating~~, and not less than that required for any connecting exit enclosure~~. When acting as a horizontal continuation of an exit enclosure on the level of exit discharge, the fire-resistance rating of the exit passageway shall not be less than the rating required for the exit enclosure. Exit passageways shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both.

Reason: This amendment is primarily intended as clarification. The present wording uses the term "any connecting exit enclosure". This has been interpreted to require a 2-hr exit passageway on a floor, other than the level of exit discharge, even when the exit passageway; (1) only provides access to a 2-hr vertical exit enclosure, which in turn continues to exit discharge, (2) only serves the floor on which it is located and (3) is separated from the vertical exit enclosure by 2-hr rated construction and the required opening protectives. This exit passageway is not a "continuation" of the vertical exit enclosure. It provides access to the vertical exit enclosure and is properly separated from the vertical exit enclosure. The level of protection provided is commensurate with the hazard, since the exit passageway is only protecting occupants from the hazards on the floor they are exiting. Whereas the vertical exit enclosure provides protection from the hazards on all floors it connects. In fact the code only requires a 1 hour rated vertical exit enclosure when the enclosure connects three floors or less.

This amendment provides needed clarification to the level of protection intended.

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

ICCFILENAME:Dimascio-E1-1023.3

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: Exit passageways when connected to an exit stairway at the level of exit discharge or at upper levels should have a consistent level of protection throughout. The reduction of the fire resistance rating is not justified.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Raymond A. Grill, Arup, representing self, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1023.3 (IFC [B] 1023.3) Construction. Exit passageway enclosures shall have walls, floors and ceilings of not less than 1-hour fire-resistance rating. When acting as a horizontal continuation of an exit enclosure required to have a fire-resistance rating of not less than 2 hours ~~on the level of exit discharge, the fire-resistance rating of~~ the exit

passageway enclosure shall ~~not be less than the rating required for the exit enclosure~~ shall have a fire-resistance rating of not less than 2 hours. Exit passageways shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both.

Commenter's Reason: The original proposal never intended that the fire resistance rating be reduced for a passageway that connects two 2-hour rated stair enclosures (i.e., stair transfer). This was the committee's perception of the intent behind the original proposal as noted during the discussion of the committee action.

The modification makes it clear that if the passageway provides a continuation of a 2 hour fire rated enclosure, the passageway must be 2 hour.

A passageway that is provided solely to address travel distance such as in a mall and that may provide access to stairs,

Final Action: AS AM AMPC____ D

E130-09/10

1002.1, 1023.4 (IFC [B] 1002.1, 1023.4)

Proposed Change as Submitted

Proponent: Michael DiMascio, Arup; representing self

Revise as follows:

1002.1 (IFC [B] 1002.1) Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

EXIT PASSAGEWAY. An exit component that is separated from other interior spaces of a building or structure by fire-resistance-rated construction and opening protectives, and provides for a protected path of egress travel in a horizontal direction to an exit or an exit discharge ~~or the public way~~.

1023.4 (IFC [B] 1023.4) Termination. Exit passageways on the level of exit discharge shall terminate at an exit discharge ~~or a public way~~. Exit passageways on other levels shall terminate at an exit.

Reason: This amendments are primarily intended as clarification. The present wording does not define the use of exit passageways on levels other than the level of exit discharge. This means it does not address the use of exit passageways in malls and on upper and lower floors in buildings with large floor plates. In malls, exit passageways are frequently used between the mall itself and the vertical exit enclosure. (See Section 402.4.5 and 402.4.6) Using exit passageways on levels other than the level of exit discharge is a common practice where the travel distance to the vertical exit enclosure exceeds the allowable travel distance. The removal of the term, "or a public way" is for consistency. Based on the definition of means-of-egress, you must pass through an exit discharge before you reach a public way. Since the exit passageway is an extension of the exit enclosure, it must end at an exit discharge when located on the level of exit discharge.

This amendment provides needed clarification as to when the exit passageway must terminate at an exit discharge and clarifies it would not end at a public way.

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

ICCFILENAME:Dimascio-E2-1023.4

Public Hearing Results

Committee Action: **Approved as Submitted**

Committee Reason: This proposal clarifies that transfer passageways at upper floors between exit enclosures are permitted and that the rating must be consistent for the entire enclosure.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because public comments were submitted.

Public Comment 1:

Ali M. Fattah, P.E., City of San Diego, Development Services Department, representing San Diego Area Chapter of ICC, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1002.1 (IFC [B] 1002.1) Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

EXIT PASSAGEWAY. An exit component that is separated from other interior spaces of a building or structure by fire resistance rated construction and opening protectives, and provides for a protected path of egress travel in a horizontal direction to an exit or an exit discharge or the public way.

1023.4 (IFC [B] 1023.4) Termination. Exit passageways on the level of exit discharge shall terminate at an exit discharge or a public way. Exit passageways on other levels shall terminate at an exit enclosure.

Commenter's Reason: The proposed code change to Section 1023.4 as initially submitted will allow an exit passageway to terminate at a horizontal exit. It will also allow an exit enclosure that transfers horizontally via a passageway to terminate at a horizontal exit. Both are code violations and have never been permitted in any of the legacy codes. This code change will lead to conflicts with Section 1022 that states in part that "…Exit enclosures shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1023, except as permitted in Section 1027.1". Section 1023.4 as published in the 2009 IBC is not broken and does need to be changed and this public comment respects the wish of the committee and attempts to correct an inadvertent omission.

Public Comment 2:

Lawrence G. Perry, AIA, representing the Building Owners and Managers Association (BOMA) International, request Approval as Modified by this Public Comment.

Modify the proposal as follows:

1023.4 (IFC [B] 1023.4) Termination. Exit passageways on the level of exit discharge shall terminate at an exit discharge. Exit passageways on other levels shall terminate at or connect to an exit.

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The concern with the language as approved is that it can be read to require a physical separation (exit doors and walls) between a vertical exit enclosure and an exit passageway. Where an exit passageway is used on an upper floor to serve as a transfer corridor where the vertical enclosure offsets, there is no reason to be required to 'terminate' the exit passageway at each end. The proposed modification appears to retain the overall intent of the change, but eliminate the potential misapplication of separation requirements between exits and exit passageways.

Final Action: AS AM AMPC____ D

E131-09/10
1024.4 (IFC [B] 1024.4)

Proposed Change as Submitted

Proponent: Lee C. DeVito, PE, FIREPRO Incorporated, representing self

Revise as follows:

1024.4 (IFC [B] 1024.4) ~~Self-luminous and photoluminescent~~ Luminescent materials. Luminous egress path markings shall be permitted to be made of any material, including paint, ~~provided that an electrical charge is not required to maintain the required luminance~~. Such materials shall include, but are not limited to, self-luminous materials ~~and~~ photoluminescent materials and electroluminescent materials. Materials shall comply with either:

1. UL 1994; or
2. ASTM E 2072, except that the charging source shall be 1 foot-candle (11 lux) of fluorescent illumination for 60 minutes, and the minimum luminance shall be 30 millicandelas per square meter at 10 minutes and 5 millicandelas per square meter after 90 minutes.

Reason: Electrical systems provide the building management with more flexibility with the operation of the exit path marking systems.

Electrical systems do not need backup lighting which will allow building managers to control lighting. Furthermore, energy savings and Green/LEEDS requirements (for example thru the use of motion sensor lighting) may be further achieved with electroluminescent materials, as separate, continuously operational light sources are not required for charging purposes. A later section of this code, 1024.5 Illumination, requires means of egress illumination for photoluminscent exit path markings is required for at least 60 minutes prior to periods when the building is occupied. Electroluminescent exit path markings would not require this.

Electrical systems can be operated at any time as they have available power and they are protected with battery standby support. Therefore, the building management can utilize the electrical systems whenever there is an alarm activity or other situation in the building, whether the building power is available or not. Self luminous and photoluminescent materials only provide lighting when the background lighting is limited.

Electrical systems are supervised so the building management will know that there is a problem. Self-luminous materials and photoluminescent materials are not supervised, so they can be damaged or removed and no one is notified until a manual check is performed on the system. Whereas the systems are required in some high-rise buildings manual inspection will be time consuming and possibly burdensome, which may mean that self luminous or photoluminescent systems may not be inspected.

The building management can utilize the flexibility of electrical systems to provide further information on the availability or disruption of an egress path.

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

ICCFILENAME:Devito-E1-1024.4

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: While this new technology will allow greater flexibility, this proposal is not clear on electrical backup and supervision requirements. There is still the issue of maintenance of the battery system. Would 'loss of power' be loss of power to the building or loss of emergency power?

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Lee C. DeVito, PE, FIREPRO Incorporated, representing self, requests Approval as Modified by this Public Comment.

Modify proposal as follows:

1024.4 (IFC [B] 1024.4) Luminescent materials. Luminescent exit path markings shall be permitted to be made of any material, including paint;. Such materials shall include, but not limit to, self-luminous ~~materials,~~ and photoluminescent materials ~~and electroluminescent materials~~ or electrical devices such as electroluminescent or LED strips. Materials shall comply with either:

Self-luminous and photoluminescent materials –

1. UL 1994, or
2. ASTM E 2072, except that the charging source shall be 1fc (10 lux) of fluorescent illumination for 60 minutes, and the minimum luminance shall be 5 milicandelas per square meter after 90 minutes.

Electrical devices –

1. UL 1994, and
2. The system shall have a backup emergency power supply that consists of a dedicated battery source that provides backup power for a minimum of 90 minutes and it is listed to UL 924.
3. The electrical devices shall illuminate within ten seconds in the event of a power failure in the area where the devices are located. The devices shall remain illuminated for 90 minutes following the loss of power.
4. The electrical system shall be supervised and provide a supervisory signal to the building fire alarm panel.

Commenter's Reason: The original proposal was rejected, but with the request that additional information be provided. The individual that provided a public objection also indicated an item of concern. I have addressed each of those concerns, which primarily addressed the battery backup requirements for the electrical systems.

Final Action: AS AM AMPC____ D

E132-09/10
707.3.10 (New), 1026 (IFC [B] 1026)

Proposed Change as Submitted

Proponent: Ron Clements, Chesterfield County Virginia Building Inspection Department, representing self

1. Revise as follows:

SECTION 1026 (IFC [B] 1026)
EXTERIOR EXIT STAIRWAYS ~~RAMPS~~ AND RAMPS ~~STAIRWAYS~~

1026.1 (IFC [B] 1026.1) General ~~Exterior exit ramps and stairways.~~ Exterior exit stairways ~~ramps~~ and ramps ~~stairways~~ serving as an exit component in the ~~element of a required~~ means of egress shall comply with this section.

~~Exception~~ Exceptions: ~~Exterior exit ramps and stairways for outdoor stadiums complying with Section 1022.1, Exception 2.~~

1. Exits in buildings of Group A-5 where all portions of the means of egress are essentially open to the outside are not required be comply with this section.
2. Stairways in open parking structures that serve only the parking structure are not required to comply with this section.

1026.2 (IFC [B] 1026.2) Occupancy and height limitations ~~Use in a means of egress.~~ ~~Exterior exit stairways shall not be used as an element of a required means of egress for occupancies in Group I-2. For occupancies in other than Group I-2,~~ In other than Group I-2 occupancies, exterior exit stairways ~~ramps~~ and ramps ~~stairways~~ shall be permitted as ~~an element of~~ a required ~~means of egress~~ exit ~~for~~ in buildings not ~~exceeding~~ more than six stories above grade plane in height or having occupied floors more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

1026.3 (IFC [B] 1026.3) Open side. Exterior exit stairways ~~ramps~~ and ramps ~~stairways serving as an element of a required means of egress~~ shall be open to a yard, court or public way on at least one side. ~~An~~ The open side shall have a minimum ~~of~~ 35 square feet (3.3 m^2) of aggregate open area adjacent to each floor level and the level of each intermediate landing. The required open area shall be located not less than 42 inches (1067 mm) above the adjacent floor or landing level.

~~**1026.4 (IFC [B] 1026.4) Side yards.** The open areas adjoining exterior exit ramps or stairways shall be either yards, courts or public ways; the remaining sides are permitted to be enclosed by the exterior walls of the building.~~

~~**1026.5**~~ **1026.4 (IFC [B] ~~1026.5~~ 1026.4) Fire separation distance ~~Location.~~** Exterior exit stairways and ramps ~~and stairways~~ shall ~~be located in accordance with Section 1027.3.~~ have a fire separation distance of not less than 10 feet. The outermost vertical plane of the exterior stair assembly shall be considered the building face for the fire separation distance measurement.

~~**1026.6**~~ **1026.5 (IFC [B] ~~1026.6~~ 1026.5) Exterior ramps and stairway protection**. Exterior exit stairways and ramps ~~and stairways~~ shall be separated from the interior of the building with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. Such separation 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 ~~as required in Section 1022.1~~. Openings in such fire barriers shall be limited to those necessary for egress from normally occupied spaces.

Where the sides of the exterior stairway or ramp are exposed to other parts of the building at an angle of less than 180 degrees (3.14 rad), the exterior walls of the building within 10 feet (3048 mm) horizontally of the exterior stairway or ramp exposed sides shall have a fire-resistance rating of not less than 1 hour or the exposed side of the exterior stairway must be a wall constructed as a fire barrier having a fire-resistance rating of not less than 1 hour. Openings within the 1 hour fire-resistive rated exposure protection shall be protected by opening protectives having a fire protection rating of not less than 3/4-hour. The fire rated construction shall extend vertically from the ground to a point 10 feet (3048 mm) above the topmost landing of the stairway or to the roof line, whichever is lower.

Exceptions:

1. In other than Group R-1 or R-2 occupancies, separation from the interior of the building is not required ~~for occupancies, other than those in Group R-1 or R-2,~~ in buildings that are no more than two stories above grade plane where a level of exit discharge serving such occupancies is the first story above grade plane.
2. Separation from the interior of the building is not required where the exterior exit stairway ~~ramp~~ and ramp ~~stairway~~ is served by an exterior ramp ~~and/~~or balcony that connects two remote exterior stairways or other approved exits, with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be a minimum of 50 percent of the height of the enclosing wall, with the top of the openings no less than 7 feet (2134 mm) above the top of the balcony.
3. Separation from the interior of the building is not required for an exterior exit stairway ~~ramp~~ and ramp ~~stairway~~ serving ~~located in~~ a building ~~or structure~~ that is permitted to have unenclosed ~~interior~~ stairways in accordance with Section 1022.1.
4. Separation from the interior of the building is not required for exterior exit stairways ~~ramps~~ and ramps ~~stairways~~ connected to open-ended corridors provided that Items 4.1 through 4.4 are met:
   - 4.1. The building, including corridors, exit stairways ~~ramps and~~ or ramps ~~stairs~~, shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
   - 4.2. The open-ended corridors comply with Section 1018.
   - 4.3. The open-ended corridors are connected on each end to an exterior exit ramp or stairway complying with Section 1026.
   - 4.4. At any location in an open-ended corridor where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3.3 m^2) or an exterior exit stairway ~~ramp~~ and ramp ~~stairway~~ shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.

2. Add new text as follows:

707.3.10 Exterior Exit Stairways and ramps. The fire-resistance rating of the fire barrier separating building areas from an exterior exit stairway and ramp shall comply with Section 1026.5.

Reason: This is an attempt to clean up the exterior exit stair provisions. First the majority of exterior exit elements that are designed in accordance with this section are stairs, not ramps therefore Stairway has been placed before Ramp.

Section 1026.1 has been re-titled as General so the title is not a restatement of the overall section title and follows the common code format. The exception for open exterior stairways have been revised to allow exterior exit stairways that are attached to open buildings to not have to meet the provisions in this section since the danger of smoke accumulation in the stairway is not there.

Section 1026.2 changes are all editorial.

Section 1026.4 was deleted and the requirement for the stair to be open to a yard was added to Section 1026.3.

Section 1026.5 Location was renamed separation distance and the 10 fire separation distance based on Section 1027.2 was included in section 1026.5 and the reference to Section 1027.3 was removed. Exterior exit stairs are not part of the exit discharge therefore it is incorrect and confusing to reference the separation requirements on exit discharge requirements. Furthermore a cross reference was added for Section 705.2.

Section 1026.6 was modified to include the fire rated protection requirements for an exterior stair in the exterior stair section and remove the reference to interior exit stairs. These are not interior exit stairs and the protection requirements should be available in the exterior exit stair section specific to exterior exit stairs.

Section 707.3.10 was added in keeping with the organization of Section 707.3 listing as a cross reference all of the locations fire barriers are used.

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

ICCFILENAME:Clements-E5-1026

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: Several of the proponents and opponent brought up possible revisions to clarify the text that need to be brought forward at the public comment phase. The proposal needs to clarify if the term “assembly” includes the supporting construction or not. “Essentially open”, while it is currently in code text, leaves too much open for interpretation.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Ron Clements, representing Chesterfield County Building Inspection Dept., requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

SECTION 1026
EXTERIOR EXIT STAIRWAYS AND RAMPS

1026.1 (IFC [B] 1026.1) General. Exterior exit stairways and ramps serving as an exit component in the means of egress shall comply with this section.

Exceptions:

1. Exterior exit stairways and ramps in buildings of Group A-5 where all portions of the means of egress are open to the outside air. ~~Exits in buildings of Group A-5 where all portions of the means of egress are essentially open to the outside are not required be comply with this section.~~
2. Stairways in open parking structures that serve only the parking structure are not required to comply with this section.

1026.2 (IFC [B] 1026.2) Occupancy and height limitations. In other than Group I-2 occupancies, exterior exit stairways and ramps shall be permitted as a required exit in buildings not more than six stories in height above grade plane ~~in height~~ or having occupied floors more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

1026.4 (IFC [B] 1026.4) Fire separation distance. Exterior exit stairways and ramps shall be located in accordance with Section 1027.3 ~~have a fire separation distance of not less than 10 feet. The outermost vertical plane of the exterior stair assembly shall be considered the building face for the fire separation distance measurement~~.

(Portions of proposal not shown remain unchanged.)

Commenter's Reason: Section 1026.1, Exception #1 was modified to change "essentially open to the outside" to "where all portions of the means of egress are open to the outside air." Based on floor and committee testimony. Open to the outside air was a term introduced and approved in E38.

In 1026.2 was changed per floor testimony from "more than six stories above grade plane in height" to "more than six stories in height above grade plane"

In 1026.4 the original text was returned based on committee comments that were in opposition to the original proposed language that measured the fire separation distance to the outermost vertical plane of the exterior stair assembly.

Final Action: AS AM AMPC____ D

E133-09/10
1026.6 (IFC [B] 1026.6)

Proposed Change as Submitted

Proponent: Anne VonWeller, Murray City, representing the Utah Chapter of the International Code Council

Revise as follows:

1026.6 (IFC [B] 1026.6) Exterior ramps and stairway protection. Exterior exit ramps and stairways shall be separated from the interior of the building as required in Section 1022.1. Openings shall be limited to those necessary for egress from normally occupied spaces.

Exceptions:

1. Separation from the interior of the building is not required for occupancies, other than those in Group R-1 or R-2, in buildings that are no more than two stories above grade plane where a level of exit discharge serving such occupancies is the first story above grade plane.
2. Separation from the interior of the building is not required where the exterior ramp or stairway is served by an exterior ramp or balcony that connects two remote exterior stairways or other approved exits, with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be a minimum

of 50 percent of the height of the enclosing wall, with the top of the openings no less than 7 feet (2134 mm) above the top of the balcony.

3. Separation from the interior of the building is not required for an exterior ramp or stairway located in a building or structure that is permitted to have unenclosed interior stairways in accordance with Section 1022.1 or Exceptions 3 and 4 of Section 1016.1.
4. Separation from the interior of the building is not required for exterior ramps or stairways connected to open-ended corridors, provided that Items 4.1 through 4.4 are met:
   - 4.1. The building, including corridors and ramps and stairs, shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
   - 4.2. The open-ended corridors comply with Section 1018.
   - 4.3. The open-ended corridors are connected on each end to an exterior exit ramp or stairway complying with Section 1026.
   - 4.4. At any location in an open-ended corridor where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3.3 m^2) or an exterior ramp or stairway shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.

Reason: In the 2009 Edition a distinction has been made between 'exit' stairways and ramps and 'exit access' stairways and ramps. In the past all of the exceptions for unenclosed stairways and ramps occurred in Section 1022.1. Now some of those exceptions are located in Section 1022.1 and some in Section 1016. This change is to lead user to the new location for the two exceptions relocated to Section 1016.1.

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

ICCFILENAME:Vonweller-E1-1023.6

Public Hearing Results

Committee Action: **Approved as Submitted**

Committee Reason: The proposal will keep the exterior exit stairway provisions together in a place that is easier to find. This proposal may need correlation with E5 revisions.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Anne VonWeller, Murray City, representing the Utah Chapter of the International Code Council, requests Disapproval.

Commenter's Reason: The Code Development Committee approved the change with a note that it should be coordinated with E5-09/10. The concern is already addressed by E5-09/10. This comment is submitted by the original proponent to ensure the item is on the final action agenda. If E5-09/10 is approved during the final action this change is not necessary and should be disapproved. However, if E5-09/10 is not approved this public comment will be withdrawn and the approved code change will be included in the 2012 edition.

Final Action: AS AM AMPC____ D

E136-09/10
1027.1 (IFC [B] 1027.1)

Proposed Change as Submitted

Proponent: Sarah A. Rice, CBO, representing self

Revise as follows:

1027.1 (IFC [B] 1027.1) General. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide direct access to grade. The exit discharge shall not reenter a building. The combined use of Exceptions 1 and 2 below shall not exceed 50 percent of the number and capacity of the required exits.

Exceptions:

1. A maximum of 50 percent of the number and capacity of the exit enclosures is permitted to egress through areas on the level of discharge provided all of the following are met:
   1.1. Such exit enclosures egress to a free and unobstructed path of travel to an exterior exit door and such exit is readily visible and identifiable from the point of termination of the exit enclosure.
   1.2. The entire area of the level of exit discharge is separated from areas below by construction conforming to the fire-resistance rating for the exit enclosure.
   1.3. The egress path from the exit enclosure on the level of exit discharge is protected throughout by an approved automatic sprinkler system. All portions of the level of exit discharge with access to the egress path shall either be protected throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, or separated from the egress path in accordance with the requirements for the enclosure of exits.
2. A maximum of 50 percent of the number and capacity of the exit enclosures is permitted to egress through a vestibule provided all of the following are met:
   2.1. The entire area of the vestibule is separated from areas below by construction conforming to the fire-resistance rating for the exit enclosure.
   2.2. The depth from the exterior of the building is not greater than 10 feet (3048 mm) and the length is not greater than 30 feet (9144 mm).
   2.3. The area is separated from the remainder of the level of exit discharge by construction providing protection at least the equivalent of approved wired glass in steel frames.
   2.4. The area is used only for means of egress and exits directly to the outside.
3. Stairways in open parking garages complying with Section 1022.1, Exception 4, are permitted to egress through the open parking garage at their levels of exit discharge.
4. Horizontal exits complying with Section 1025 shall not be required to discharge directly to the exterior of the building.
5. <u>The exit discharge for an exit enclosure which terminate in a court without direct access to a public way is permitted to reenter the building provided one of the following are met:</u>
   <u>5.1. An exit passageway which has the same fire-resistance rating as the exit enclosure served, is provided through the building from the court to an exterior wall of the building fronting on a public way; or</u>
   <u>5.2. A covered walkway which is open to the atmosphere at opposite ends is provided through the building to an exterior wall fronting on a public way and which has walls and ceiling of not less than 1 hour fire-resistance-rated-construction and opening protected with opening protectives have not less than a ¾ hour rating.</u>

Reason: Prior to 1997 at least one of the legacy codes allowed exit enclosures to terminate into an open central court surround on all sides by a building. To provide exit discharge from such court, the code permitted an exit passageway. The IBC is silent on this type of design, and a strict reading of Section 1027.1 would prohibit it. The exception proposes two options. The first is the exit passageway. The second is an open 'breezeway' or 'tunnel' which goes from the court to the public way. It has been interpreted that the code allows the approach in 5.2 because it doesn't 're-enter' the building, but simply goes 'under' the building. This proposal codifies that interpretation. Essentially the 5.2 option is a passageway without enclosures at either end. To be consistent with other exit passageways, the passageway allowed here should have the same rating as the vertical exit enclosure served. Only one hour is proposed for the open breezeways as this is consistent with the egress court provisions in Section 1027 and because this is an atmospherically open tunnel, 1 hour should be sufficient to protect the users.

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

ICCFILENAME:Rice-E2-1027.1

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: This is a limited application, which should already be covered by the code text. The base requirement under Exception 5 is a conflict with the definition of exit discharge by saying it can terminate in a court and not a public way. A concern would be if the passageway did not provided a clear line of site to the outside that some type of exit signage would be required. The wording in 5.2 is not clear that the passage goes through the wall to the outside rather than just up to the wall.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Ali M. Fattah, P.E., City of San Diego, Development Services Department, representing Sand Diego Area of Chapter of ICC, requests Approved as Modified by this public comment.

Modify the proposal as follows:

1027.1 (IFC [B] 1027.1) General. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide direct access to grade. The exit discharge shall not reenter a building. The combined use of Exceptions 1 and 2 below shall not exceed 50 percent of the number and capacity of the required exits.

Exceptions:

1. A maximum of 50 percent of the number and capacity of exit enclosures is permitted to egress through areas on the level of discharge provided all of the following are met.
   1.1 Such exit enclosures egress to a free and unobstructed path of travel to an exterior exit door and such exit is readily visible and identifiable from the point of termination of the exit enclosure.
   1.2. The entire area of the level of exit discharge is separated from areas below by construction conforming to the fire-resistance rating for the exit enclosure.
   1.3. The egress path from the exit enclosure on the level of exit discharge is protected throughout by an approved automatic sprinkler system. All portions of the level of exit discharge with access to the egress path shall either be protected throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 03.3.1.2, or separated from the egress path in accordance with the requirements for the enclosure of exits exit enclosure.
2. A maximum of 50 percent of the number and capacity of the exit enclosures is permitted to egress through a vestibule provided all of the following are met:
   2.1 The area is used only for means of egress and exits directly to the outside.
   2.2 The vestibule depth from the exterior of the building is not greater than 10 feet (3048 mm) and the vestibule length is not greater than 30 feet (9144 mm).
   2.3 The area is separated from the remainder of the level of exit discharge by a fire barrier having a one hour fire-resistance rating. construction providing protection at least the equivalent of approved wire glass in steel frames Doors and windows in the separation walls shall be rated ¾ hour and shall not exceed the size limits specified in Section 707.6. Duct penetrations shall comply with Section 713.1.1, and other penetrations shall comply with Section 713.3.
   2.4 The entire area of the vestibule is separated from areas below by construction conforming to the fire-resistance rating for the exit enclosure.
3. Stairways in open parking garages complying with Section 1022.1, Exception 4, are permitted to egress through the open parking garage at their levels of exit discharge.
4. Horizontal exits complying with Section 1025 shall not be required to discharge directly to the exterior of the building.
5. ~~The exit discharge for an exit enclosure which terminate in a court without direct access to a public way is permitted to reenter the building provided one of the following are met:~~
   ~~5.1. An exit passageway which has the same fire-resistance rating as the exit enclosure served, is provided through the building from the court to an exterior wall of the building fronting on a public way; or~~
   ~~5.2. A covered walkway which is open to the atmosphere at opposite ends is provided through the building to an exterior wall fronting on a public way and which has walls and ceiling of not less than 1 hour fire-resistance-rated construction and opening protected with opening protectives have not less than a ¾ hour rating.~~
5. The exit discharge from an interior occupied court shall be permitted to reenter the building through an exit passageway constructed in accordance with Section 1023.3 and enclosed with a fire-resistance-rating of not less than 1 hour.
6. The exit discharge for an exit enclosure, or exterior exit stairway, which terminates in an interior court without direct access to a public way shall be permitted to reenter the building provided the path of egress travel reenters the building through an exit passageway constructed in accordance with Section 1023 and is enclosed with the same fire-resistance rating as the exit served.

Commenter's Reason: This public comment is submitted to support an omission from the code a provision that exited in more than one legacy code to address interior courts whose occupants need to renter a building to reach the public way. This code is necessary to address egress from interior courts that are occupied or courts through which exit enclosures or exterior exit stairways must pass through the court and renter the building to reach the public way. The public comment deletes the proposed exception 5.2 since: it is not clear does and not address maximum length, will

allow communicating openings into it and will thus result in lower protection than that provided by an exit passageway. The exit passageway shall have the same level of protection as the exit enclosure or exterior exit stairway or one-hour when serving occupied courts.

Final Action: AS AM AMPC____ D

E138-09/10
1027.3 (IFC [B] 1027.3)

Proposed Change as Submitted

Proponent: Lawrence Brown, CBO, National Association of Home Builders (NAHB); Eirene Oliphant, MCP, Building Official, representing City of Leawood, KS

Revise as follows:

1027.3 (IFC [B] 1027.3) Exit discharge location. Exterior balconies, stairways and ramps shall be located at least 10 feet (3048 mm) from adjacent lot lines and from other buildings on the same lot unless the adjacent building exterior walls and openings are protected in accordance with Section 705 based on fire separation distance.

Exception: Where serving Group R-3 occupancies, exterior balconies, stairways and ramps shall be permitted to be located 5 feet (1524 mm) minimum from adjacent lot lines and from other buildings on the same lot.

Reason: The added exception will help to coordinate this section with the provisions found in Table 705.8. Footnote "f" of Table 705.8 allows an unlimited amount of unprotected openings with a fire separation distance of 5 feet or greater. It would seem reasonable to allow the exterior stairways, ramps and balconies for a Group R-3 to be located in the 5 to 10 foot range if it is permissible to have an unlimited amount of unprotected openings.

While the 10 foot provision of this section does coordinate with the exterior wall rating required in Table 602 for most Group R-3 construction, permitting an unlimited amount of unprotected openings in that wall effectively eliminates the required protection beyond the 5 foot distance. Changing this section will help to coordinate with many local zoning laws that impose a 5 foot side yard requirement in residential areas. In addition Table R302.1 of the IRC permits walls to be non-rated if over 5 feet.

If the committee and members would consider another possible exception, it may be reasonable to add a second exception that would coordinate with footnote "d" of Table 705.8. This second exception would allow exterior stairs, ramps and balconies to have a minimum of 3 feet of separation provided that the wall had no more than 25 percent of unprotected or protected openings. Possible wording would be:

Exceptions:

2. In Group R-3 occupancies where the exterior wall of the exterior stairway, ramp and balcony comply with footnote "d" of Table705.8, a separation of 3 feet (915 mm) minimum shall be provided from adjacent lot lines and from other buildings on the same lot.

This second exception would not only coordinate with the provisions of Table 705.8 but would seem to correct an inconsistency that occurs within the code. As currently written, the code would allow an "interior" stairway to be located within the 3 to 5 foot range and allow 25 percent of the wall to be an unprotected opening. However, if that opening or an opening on an adjacent side exceeded 35 square feet (Section 1026.3) and the stair then was considered as an "exterior" stair it would need to be located "at least 10 feet (3048 mm) from adjacent lot lines." If the level of protection provided for the wall facing the property line is consistent then the code should not impose a 10 foot requirement on "exterior" stairs while allowing "interior" stairs to be 3 feet from the line.

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

ICCFILENAME:Brown-E1-1027.3

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: It would be preferable to close the identified loophole in Section 705.8 rather than allow exit discharge so close to the lot line.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Eirene Oliphant, MCP, City of Leawood, representing Metropolitan Kansas City Chapter of the ICC, requests Approval as Modified by this Public Comment.

Modify the proposal as:

1027.3 Exit discharge location. Exterior balconies, stairways and ramps shall be located at least 10 feet (3048 mm) from adjacent lot lines and from other buildings on the same lot unless the adjacent building exterior walls and openings are protected in accordance with Section 704 based on fire separation distance.

> **Exception:** Where serving R-3 occupancies, exterior balconies, stairways and ramps shall be permitted to be located at least 5 feet (1524 mm) ~~minimum~~ from adjacent lot lines and from other buildings on the same lot.

Commenter's Reason: The request to approve as modified is intended to match the format of the provisions found in Section 1027.3.

When this was presented to the committee for consideration, there was little to no discussion. The committee simply disapproved the code change, stating they wanted the loophole in Table 705.8 to be addressed rather than accept this code change.

Table 705.8 is not where the loophole exists. This proposed added section provides clarity to allow for decks and other exterior means of exit discharge from an R-3 occupancy to be included in the area of allowed unprotected and protected openings. The appropriate place for this to be provided for is in the exit discharge section of the code, as presented in this proposed code change.

Final Action: AS AM AMPC____ D

E142-09/10
1028.1.1.1 (New) [IFC [B] 1028.1.1.1 (New)]

Proposed Change as Submitted

Proponent: Gerard A. Hathaway, RA, New York State Department of State Building Codes Division, representing self.

Add new text as follows:

1028.1.1.1 (IFC [B] 1028.1.1.1) Spaces under grandstands and bleachers. When spaces under grandstands or bleachers are used for purposes other than toilet rooms and ticket booths less than 100 sq.ft. (9.29 m^2), such spaces shall be separated by fire barriers complying with Section 707 and horizontal assemblies complying with Section 712 with not less than 1-hour fire-resistance-rated construction.

Reason: The intent is to provide requirements for buildings under bleachers and grandstands that include spaces such as concessions, storage and ticket booths. The provisions are consistent with what permitted in the legacy codes. The location of this section is chosen for its proximity to the reference to the ICC 300. That way it will not be missed.

The legacy codes included provisions for spaces under seats to be kept free of combustible and flammable materials. Rooms under the bleachers were enclosed in a 1 hour fire-resistant rated construction. None of this information was passed forward into any edition of the IBC.

ICC 300, Section 305 sends you to the building and fire codes for requirements. The IBC does not include any specific provisions for this area except space over 1,000 sq.ft. must be sprinklered in accordance with Section 903.2.1.5.

From an intent point of view, the general stairway provisions (which may be viewed as similar to part of the bleacher system) require that any space under a stairway be enclosed with a 1 hour fire-resistance-rated construction (Section 1009.6.3).

Southern had –
403.6.2.2 When spaces under grandstands or bleachers are used for purposes other than toilet rooms, ticket booths less than 100 sq.ft. (9.29 m^2) in area and open ramps or level exiting facilities, such spaces shall be separated by not less than 1-hour fire resistant construction.

BOCA had –
1013.8 Spaces underneath seats: Spaces underneath grandstand seats shall be kept free of all combustible and flammable materials and shall not be occupied or used for other than exits; except that where enclosed in not less than 1-hour fire resistance rated construction, the code official shall approve the use of such spaces for other purposed, provided that the safety of the public is not endangered.

ICBO had the following provisions (see the 4th paragraph for separation requirements)–
Division 4. Stadiums, reviewing stands and amusement park structures not included within other Group A Occupancies. Specific and general requirements for grandstands, bleachers and reviewing stands are to be found in Chapter 10.

303.2 Construction, Height and Allowable Area.

303.2.2 Special provisions.

303.2.2.3 Division 4 provisions. Grandstands, bleachers or reviewing stands of Type III One-hour, Type IV or Type V One-hour construction shall not exceed 40 feet (12 192 mm) to the highest level of seat boards; 20 feet (6096 mm) in cases where construction is Type III-N or Type V-N; and 12 feet (3658 mm) in cases where construction is with combustible members in the structural frame and located indoors.

Division 4 structures other than Type III-N and Type V-N grandstands, bleachers, reviewing stands and folding and telescoping seating of open skeleton-frame type without roof, cover or enclosed usable space are not limited in area or height.

Erection and structural maintenance shall conform to these special requirements as well as with other applicable provisions of this code.

When the space under a Division 4 Occupancy is used for any purpose, including means of egress, it shall be separated from all parts of such Division 4 Occupancy, including means of egress, by walls, floor and ceiling of not less than one-hour-fire-resistive construction.

EXCEPTIONS:

1. A means of egress under temporary grandstands need not be separated.
2. The underside of continuous steel deck grandstands when erected outdoors need not be fire protected when occupied for public toilets.

The building official may cause Division 4 structures to be reinspected at least once every six months.

Grandstands, bleachers or folding and telescoping seating may have seat boards, toeboards, bearing or base pads and footboards of combustible materials regardless of construction type.

Seating and exiting requirements for reviewing stands, grandstands, bleachers, and folding and telescoping seating are provided under Section 1008.

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

ICCFILENAME:Hathaway-E1-1028.1.1.1

Public Hearing Results

Committee Action: **Approved as Modified**

Modify the proposal as following:

1028.1.1.1 (IFC [B] 1028.1.1.1) Spaces under grandstands and bleachers. When spaces under grandstands or bleachers are used for purposes other than ~~toilet rooms and~~ ticket booths less than 100 sq.ft. (9.29 m^2) and toilet rooms, such spaces shall be separated by fire barriers complying with Section 707 and horizontal assemblies complying with Section 712 with not less than 1-hour fire-resistance-rated construction.

Committee Reason: The modification clarifies that the exemption is for toilet rooms of any size and the 100 sq.ft. limit is only applicable to the ticket booths. The proposal identifies information that is missing in the current text to address hazards under bleachers.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

David S. Collins, FAIA, The Preview Group, representing the American Institute of Architects requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1028.1.1.1 (IFC [B] 1028.1.1.1) Spaces under grandstands and bleachers. When spaces under grandstands or bleachers are used for purposes other than ticket booths less than 100 sq.ft. (9.29 m^2) and ~~toilet rooms~~ unenclosed means of egress, such spaces shall be separated by fire barriers complying with Section 707 and horizontal assemblies complying with Section 712 with not less than 1-hour fire-resistance-rated construction.

Commenter's Reason: This is a great fix and improvement to the safety of these facilities and the persons using them. However, being a user of a legacy code that did not exempt toilet rooms from this separation I propose to require the same level of protection for them. I am sure that everyone has witnessed the illegal use of tobacco products and other irrational use of ignited materials in public restrooms. Trash cans with towels even the toilet paper itself is often a target for vandalism. The same level of protection afforded other uses beneath an assembly seating area should also be afforded these toilet rooms.

All three legacy codes did allow the space under the grandstands and bleachers to be used for means of egress, such as vomitory exits, as long as they were unenclosed. See the original reason statement for additional information

Final Action: AS AM AMPC____ D

E147-09/10
1028.14.2 (IFC [B] 1028.14.2)

Proposed Change as Submitted

Proponent: Ed Roether, Populous (Formerly HOK Sport Venue Event), representing self

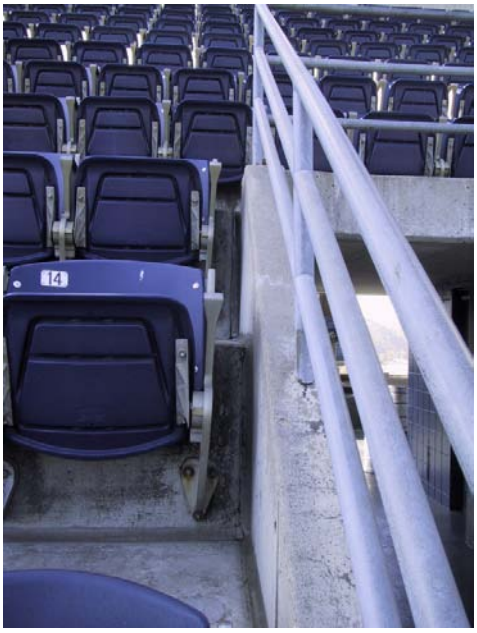
Revise as follows:

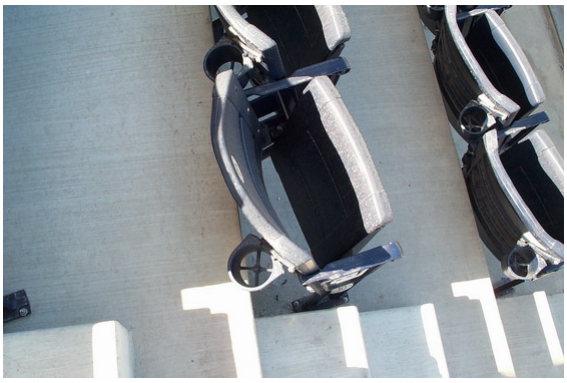
1028.14.2 (IFC [B] 1028.14.2) Sightline-constrained guard heights. Unless subject to the requirements of Section 1028.14.3, a fascia or railing system in accordance with the *guard* requirements of Section 1013 and having a minimum height of 26 inches (660 mm) measured vertically above the adjacent walking surfaces, adjacent bench seat or the line connecting the leading edges of the treads shall be provided where the floor or footboard elevation is more than 30 inches (762 mm) above the floor or grade below and the fascia or railing would otherwise interfere with the sightlines of immediately adjacent seating. At *bleachers*, a *guard* must be provided where required by ICC 300.

> **Exception:** The height of the guard shall not be required to be measured vertically above an adjacent automatic or self-rising chair.

Reason: This proposal addresses several things, first it brings clarity to confusion that was created by a change that occurred in the 2009 IBC. The term “seatboard” was replaced with the term “fixed seating” in the 2009 IBC Section 1013.2 on how the height of guards are measured with the stated reason "to clarify the measurement, using common terminology". With respect to assembly seating, the term “fixed seating” does not offer greater clarity, instead it offers significantly more confusion. For example, how do you measure the height of the guard adjacent fixed seats when they are self-rising chairs? (Refer to photographs below.) In assembly seating, fixed seats refers to chairs that are secured to the structure, not that they provide a walking surface. The aisle access way provisions of Section 1028.10 specifically address the clear width between rows of seats where there is automatic or self-rising chairs and chairs with seats that do not move. Therefore, the clarity provided other occupancies unfortunately increased confusion pertaining to assembly seating. Section 1028.14 needs to include how to measure the height of guards so that clarity can be provided assembly seating and still offer other occupancies the clarity needed for them in Section 1013.2. Please note that this proposal does not include any change to Section 1013.2, only to Section 1028.14.

Following are two photographs of self-rising chairs and one of bench seats. The fixed bench seating could serve as a walking surface, however the self-rising chairs are not easily used as a walking surface. 2007 ICC 300 measures vertically above the leading edge of the tread, adjacent walking surface or adjacent bench seat. This proposal maintains how the height of the guard is measured by 1013.2 with the exception of replacing the term "fixed seat" with the term "bench seat" to coordinate with ICC 300 and to enhance clarity that guard height needs to be measured vertically above such seats. Also, the term "bench seat" rather than "seatboard" is commonly used for this type of seating in assembly seating project specifications. An exception was added for self-rising chairs since these seats are not easily used as a walking surface and there is no well defined way to measure these chairs.





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

ICCFILENAME:Roether-E9-1028.14.2

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: Using a walking surface measurement is appropriate to get the level of safety we are looking for when using self rising chairs. The proponents and CTC committee should work together to address this issue of guards heights adjacent to different types of seats in assembly venues.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because public comments were submitted.

Public Comment 1:

Paul K. Heilstedt, PE, Hon. AIA, Chair, representing ICC Code Technology Committee (CTC) requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1028.14.2 (IFC [B] 1028.14.2) Sightline-constrained guard heights. Unless subject to the requirements of Section 1028.14.3, a fascia or railing system in accordance with the *guard* requirements of Section 1013 and having a minimum height of 26 inches (660 mm) ~~measured vertically above the adjacent walking surfaces, adjacent bench seat or the line connecting the leading edges of the treads~~ shall be provided where the floor or footboard elevation is more than 30 inches (762 mm) above the floor or grade below and the fascia or railing would otherwise interfere with the sightlines of immediately adjacent seating. At *bleachers*, a *guard* must be provided where required by ICC 300.

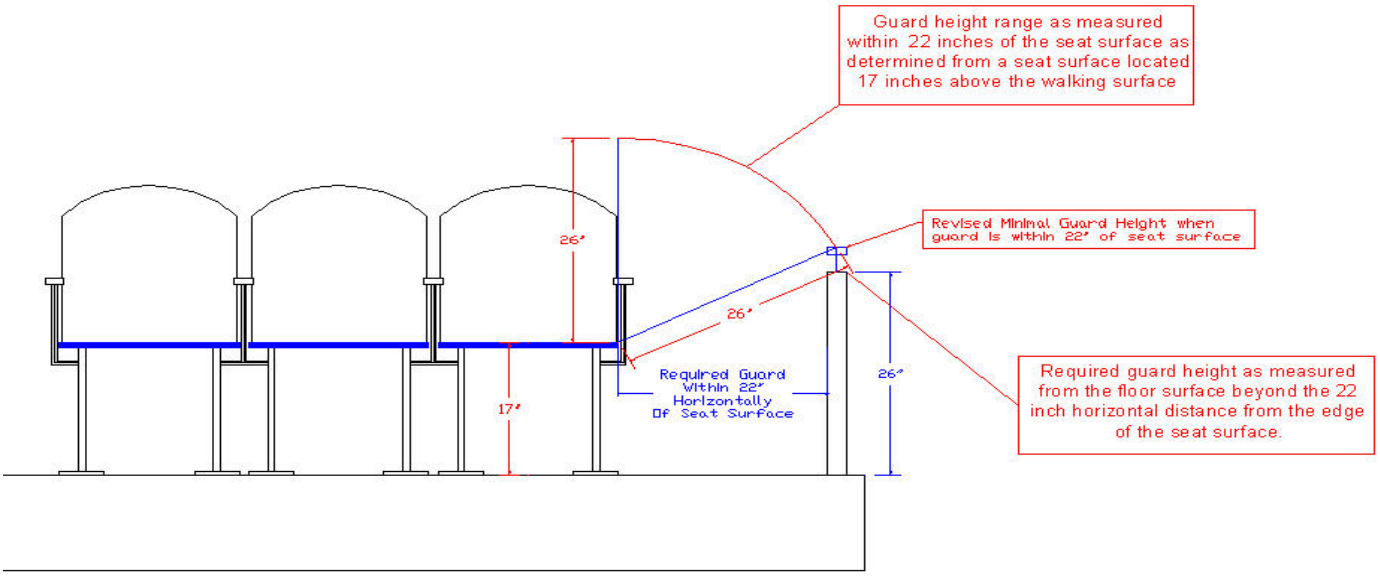
Exception: ~~The height of the guard shall not be required to be measured vertically above an adjacent automatic or self-rising chair.~~ The height of the guard in front of seating shall be measured from the adjacent walking surface.

Commenter's Reason: As noted by the code committee, there was a need to coordinate CTC's proposed E100 and Ed Roether's E147 who is an expert in assembly seating design. This comment is in recognition of that need.,

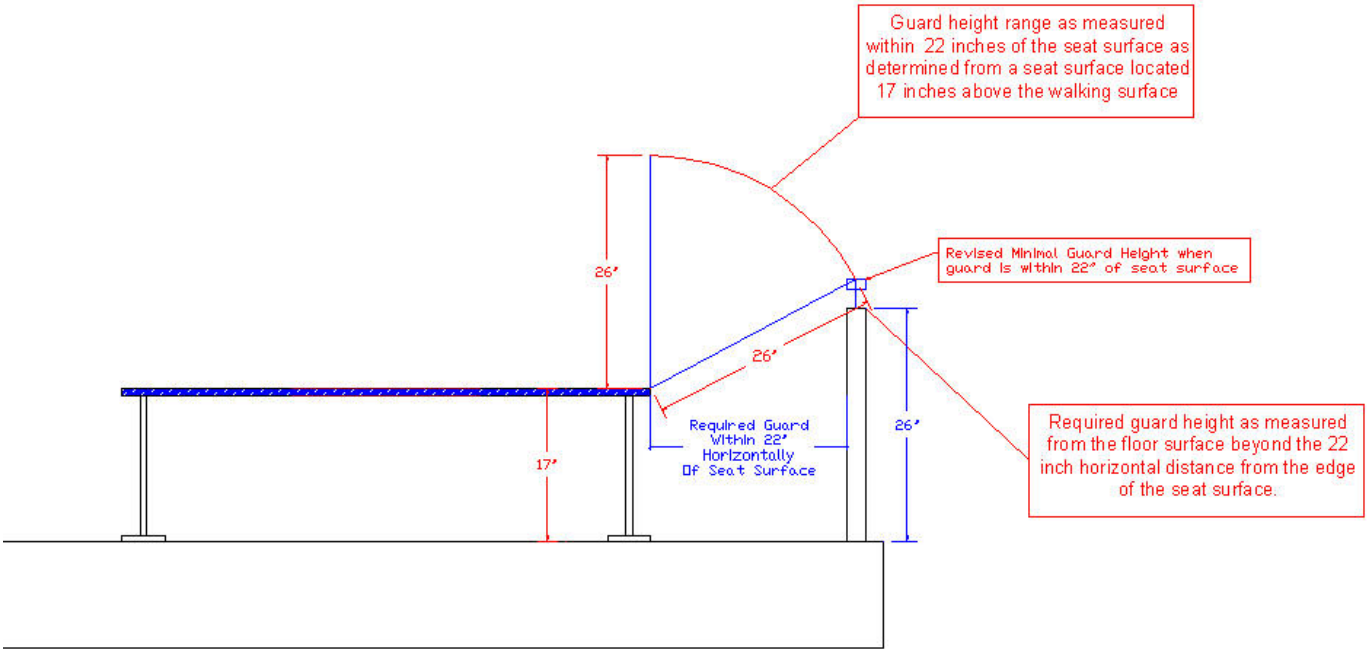
The public comment to this code change, along with the comment to E100, will bring clarity to the required height of guards in assembly seating. Confusion resulted when the term "seatboard" was replaced with "fixed seating" in Section 1013.2. It is recognized that E100 provides the needed clarity to how the height of guards is measured where the line of sight is not a consideration, but line of sight in assembly seating is critical. The revised exception to Section 1028.14.2 addresses line of sight issues. This exception does not alter the height of guards immediately beside or behind seating or other conditions as established in Section 1013.2. The minimum height of 26 inches would be measured in accordance with 1013.2 where the guard would otherwise interfere with the line of sight and the minimum height of 42 inches would be measured in accordance with 1013.2 where there is not interference with line of sight. This comment and that of E100 should be heard together. Please see the illustrations published with the public comment to E100-09/10.

The following illustrate how guards would be measured in assembly seating.

Elevation view of individual seat configuration – guard measurement from Section 1013.2, Item 2 with the 26 inch height from Section 1013.2, Exp. 3 and Section 1028.14.2:



Elevation view of bench seat configuration – guard measurement from Section 1013.2, Item 2 with the 26 inch height from Section 1013.2, Exp. 3 and Section 1028.14.2:



Public Comment 2:

Ed Roether, representing Populous (Formerly HOK Sport Venue Event), requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1028.14.2 (IFC [B] 1028.14.2) Sightline-constrained guard heights. Unless subject to the requirements of Section 1028.14.3, a fascia or railing system in accordance with the *guard* requirements of Section 1013 ~~and having a minimum height of 26 inches (660 mm) measured vertically above the adjacent walking surfaces, adjacent bench seat or the line connecting the leading edges of the treads~~ shall be provided where the floor or footboard elevation is more than 30 inches (762 mm) above the floor or grade below. At *bleachers*, a *guard* must be provided where required by ICC 300. Where ~~and~~ the fascia or railing would otherwise interfere with the sightlines of immediately adjacent seating guards shall not be less than 26 inches (660 mm) high and be measured vertically as follows:

1. From the adjacent walking surfaces,
2. From a seat surface of adjacent fixed seating, with or without arm or back rests, within 22 inches measured horizontally of a required guard, the guard height shall provide a minimum 26 inches measured diagonally between the top of the guard and the nearest edge of the seat surface
3. On stairs, from the line connecting the leading edges of the tread nosings, and
4. On ramps, from the ramp surface at the guard.

~~At *bleachers*, a *guard* must be provided where required by ICC 300.~~

Exception: ~~The height of the guard shall not be required to be measured vertically above an adjacent automatic or self-rising chair.~~ The height of the guard in front of seating shall be measured from the adjacent walking surface.

Commenter's Reason: This proposal provides an alternative to the text proposed by CTC for E147-09/10 and matches their proposed text for how to measure guard height in G100-09/10. Assuming the general reference back to the guard requirements in Section 1013 will let designers/code official understand that you use Section 1013.2 for how to measure the guard height, with Section 1013.2, Exp. 3 sending you to Section 1028.14.2 for the actual height, could be considered vague and circuitous. Sections 1028.14.1 and 1028.14.3 specifically state how the guard is to be measured and its height without bouncing you around in a circle. Putting the text here will be more specific for assembly seating. The sentence about bleachers is existing text and is simply relocated for clarity.

Final Action: AS AM AMPC____ D

E150-09/10, PART II
IRC R310.1

NOTE: PART I DID NOT RECEIVE A PUBLIC COMMENT AND ARE ON THE CONSENT AGENDA. PART I IS REPRODUCED FOR INFORMATIONAL PURPOSES ONLY FOLLOWING ALL OF PART II.

Proposed Change as Submitted

Proponent: Steven Orlowski, representing National Association of Home Builders

PART II – IRC BUILDING/ENERGY

R310.1 Emergency escape and rescue required. Basements, habitable attics and every sleeping room shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room. Where emergency escape and rescue openings are provided they shall have a sill height of not more than 44 inches (1118 mm) above the floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section R310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. Emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court that opens to a public way.

~~Exception~~ Exceptions:

1. Basements used only to house mechanical equipment and not exceeding total floor area of 200 square feet (18.58 m^2).

2. Emergency escape and rescue openings shall not be required in one- and two family dwellings and townhouses that are equipped with an approved automatic sprinkler system in accordance with Section R313 or Section P2904.

Reason: Based on extensive research on the performance of residential smoke alarms, the NFPA 72 technical committee on residential alarms has determined that both ionization and photoelectric smoke alarms provide adequate escape time along the normal path of egress in both fast flaming and slow smoldering fires. In tests conducted by NIST, the results show that when smoke alarms are present and functioning properly, these devices will detect and notify the occupant with enough time to vacate the structure prior to untenable conditions being reached within the dwelling. The purpose for the emergency egress is to provide a secondary means of escape and rescue, in the event that the normal path of egress becomes blocked or conditions are unsustainable.

During the last code development cycle, the sprinkler proponents testified that residential fire sprinklers are effective in 96% of the fires that grow large enough to activate the system. With the recent addition of residential sprinklers, the time for evacuating the structure before conditions become untenable and incapacitate the occupant have been extended. When sprinklers are used in tandem with smoke alarms, the available escape time in a fast flaming fire is increased and occupants are given more time for escape. Proponents also testified that when sprinklers are present it will provide additional time for firefighters to conduct search and rescue, since the fire will be either extinguished or contained.

If homes are required to be equipped with both an active suppression system and alarm system, it is time to start reevaluating the need for some of the passive life safety features in the home that have previously been justified to protect occupants in the event of a fire. While this proposal may raise the eyebrows of many skeptics, the concept of not requiring emergency egress and rescue openings in one- and two- family dwellings equipped with an automatic suppression system is not new since this exception has been permitted in NFPA 101 The Life Safety Code for several years. In addition, the International Building Code has exempted R-1, R-2 and I-1 occupancies from requiring emergency escape and rescue openings when an approved automatic suppressions system is installed.

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

ICCFILENAME:Orlowski-E1-1029.1

Public Hearing Results

PART II- IRC B/E
Committee Action: **Approved as Submitted**

Committee Reason: This change adds a reasonable exception based on an approved automatic sprinkler system in the dwelling. This creates an incentive to provide a sprinkler system. Also, this may get some retrofits for additions.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because public comments were submitted.

Public Comment 1:

Jeff Inks, Washington, DC representing Window and Door Manufacturer's Association, requests Disapproval.

Commenter's Reason: WDMA is strongly opposed to the approval of this proposal which was soundly defeated when considered by the Means of Egress Committee for inclusion in the IBC.

Removal of the requirement for EER openings is an unjustified and significant compromise in occupant safety. Characterizing EER openings as redundant, unneeded safety features in homes, if they are equipped with a residential fire sprinkler system is simply irresponsible.

What the proponents are saying is that if you install a sprinkler, there is no need for a back-up emergency escape and rescue which completely disregards the fact that sprinklers are not 100% effective or reliable, ignores the other limitations with the installation and operation of sprinklers in single family homes, such as maintenance, homeowner deactivation or disruption of the system, etc., and it completely disregards every other emergency that may require emergency escape or rescue.

While there is no disputing sprinklers provide an added measure of safety, there are many concerns with trading off EER opening requirements if residential sprinklers are installed making such a trade-off an unjustified compromise in occupant safety.

As noted, among the many concerns are the limits to the reliability of residential fire sprinkler systems which is directly dependent upon proper care and maintenance by the homeowner. While 13-D does require the installer to provide instructions on inspecting, testing, and maintaining the system -- clearly because it is critical to maintaining the operability of the system -- there is no requirement that any maintenance is to be performed and proper maintenance is therefore not likely to happen. NFPA 13-D also requires that damaged or painted sprinkler heads be replaced, but how will that be enforced throughout the life of the home, and what if the sprinkler head is damaged in some way that is not apparent? In addition, removing the EER opening requirements also ignores situations where the system is shut-off or otherwise disabled.

With respect to existing exceptions for other residential type occupancies, it also unreasonable to base this proposal on them. One- and two-family homes are completely different occupancy types operated and maintained very differently from other residential occupancy types where those exceptions are allowed. Removing the EER opening requirement completely ignores that fact.

There are many other concerning questions as well such as, what if the system does fail to operate? What if the occupants are not fully cognizant or physically able to safely egress? The sprinkler system is only intended as an "aid" as stated in NFPA 13-D to give occupants a few additional minutes to escape, but what if that is not enough time? What if the only path for egress is through or close to the fire hazard, or if the path is blocked, or if they are afraid, or are disabled or otherwise incapacitated? What about other non-fire emergencies? And equally important, what if they need to be rescued and rescued quickly? Rescue is another critical function these openings provide and that is also being completely ignored.

Furthermore, the IRC B&E Committee's approval of this proposal is counter to their action to reject RB-186 which does the exact same thing and was heard immediately before E-150. After extensive testimony, the Committee rejected RB-186 stating that "*The committee feels this change sacrifices safety without an appropriate return*." However, the Committee then approved E-150 in a contradictory action to RB-186 without any

further testimony (because of the extensive testimony that had already been provided on RB-186) stating "*This change adds a reasonable exception based on an approved automatic sprinkler system in a dwelling*," yet there was no further testimony provided or any discussion by them of their concerns expressed in their decision to disapprove RB-186.

While installing sprinkler systems is an improvement in fire safety, removing the EER opening requirements as a trade off is a huge leap backwards in overall safety. It is an unjustified compromise and we urge disapproval of this proposal.

Public Comment 2:

Gary Lewis, Construction Official, City of Summit, NJ representing self, requests Disapproval.

Commenter's Reason: Code proposals RB186-09/10 and E150-09/10 were heard consecutively by the IRC Building and Energy Committee in Baltimore. Both proposals sought to achieve the same overall result……to eliminate the long-standing requirement to provide emergency escape and rescue windows in dwelling units equipped with automatic fire sprinklers. Testimony provided at the hearing resulted in an overwhelming committee disapproval of RB186 and no assembly action. The opponents mistakenly sat down, far from the testimony microphones, assuming E150 would similarly be disapproved to be consistent with the immediately previous action on RB186. Unfortunately, the committee reversed themselves without any additional testimony and recommended E150-09/10 for approval, resulting in this public comment.

One need only read the IBC Means of Egress Committee's reason for disapproving Part I of this change (similar language in the IBC) to find ample rationale for overturning the committee. To the point, R-5 and R-3 occupancies only require a single means of egress in an occupancy where people sleep. Not discounting the value of early warning or active suppression, the MOE Committee felt a lack of required system maintenance necessitates keeping the redundancy of these windows. Understand that these are escape **and rescue** windows.

The membership needs to understand that without the minimum provisions of R310.1, the *only* minimum size and height threshold for the second-or-third story windows in a dwelling is the 4% (of floor area) natural ventilation provisions, which have never contemplated and value to emergency escape or access. Complicate matters further by adding the sprinkler system cited as the basis for the exception need only provide a water supply for 10 minutes, beyond the time actually required by many fire departments to commence interior attack on upper floors.

Consider a spec dwelling with 11' by 11' non-master bedrooms. 4% of the floor area is 4.84 square feet. In a corner room, if the minimum openable area is divided over 2 windows, I can achieve my minimum required ventilation through the use of a WDH 24210 by Anderson or similar, which provides a healthy 25"+ of width but a mere 14" in clear height, not to mention I can locate it 5 feet or more above the floor. 14" just will not allow an emergency responder in gear to pass through. Not to mention the difficulty in clearing the glass if the dwelling happens to be in a windborne debris region with required impact-resistant glazing.

If the fire service were able to say that they could never foresee having to enter a dwelling unit from other than the ground-level entry to effect search and rescue or fire operations, I would be less concerned. I do not believe, however, that is the case.

Responding to the argument that this exception is allowed in the IBC, that exception is only in place for occupancies equipped with NFPA 13 or 13R sprinkler systems, not 13D or P2904.

In conclusion, there is no correlation between the additional protection afforded by limited dwelling system sprinklers and the need for a second path in (or out) of a dwelling unit.

Public Comment 3:

Tim Pate with the Colorado Chapter of ICC; Brad Emerick, representing Fire Marshal's Association of Colorado, requests Disapproval.

Commenter's Reason: This public comment will ask the membership to overturn the Committee and ultimately disapprove E150 Part II which will match the action that the Means of Egress Committee did to E150 Part I.

It's acknowledged that an NFPA 13D sprinkler system "…aids in the detection and control of residential fires and thus provides improved protection against injury, life loss, and property damage", but is primarily "…expected to prevent flashover (total involvement) in the room of fire origin, where sprinklered, and to improve the chance for occupants to escape or be evacuated." But to escape or be evacuated, means of egress/access have to be provided. Until enough data is compiled on the effectiveness of 13D systems installed on a broad scale, by various trades, and maintained by homeowners, it's premature to allow escape routes to be compromised – especially from basements. Enough data is starting to be accumulated on smoke alarms, which have been required for some time, to now identify the weaknesses of the associated code provisions, the devices themselves, and the importance of maintenance (e.g., children sleeping through notification, ionization technology in smoldering fires, device expiration, etc.). Had egress systems been compromised in anticipation of the benefits of smoke alarms, many of the people for whom the system worked would have been put at risk. The same cautionary approach should be taken with respect to 13D sprinkler systems.

In addition to occupant egress, rescue/escape windows often provide the only means for a fire department to put a hose stream directly on a basement fire.

And finally, from the discussion on E150, Part 1:

"…There is no alert element on an NFPA13D system, and while smoke detectors are good at detection, they are not always the best at alerting. In a person's home the occupants may be sleeping, intoxicated or unable to evacuate without assistance – this can cause delayed evacuation, thus the real need for the emergency escape windows…"

Public Comment 4:

Julie Ruth, New Lenox, IL representing American Architectural Manufacturers Association, requests Disapproval.

Commenter's Reason: E150, Part II adds an exception to the Emergency Escape and Rescue Opening requirements of the IRC for one and two family homes that are equipped with an automatic sprinkler system. Upon first glance this appears to simply be an extension of the long standing exception to Emergency Escape and Rescue Openings in sprinklered buildings that has existed in the IBC since its first edition, and which existed in some of the ICC legacy codes.

The proposed exception to the IRC, however, is not exactly the same as the exception to Section 1029.1 that exists in the 2009 IBC. The exception in the 2009 IBC is only for Group R and I-1 occupancies that are equipped with an NFPA 13 or NFPA 13R fire suppression system. The proposed exception to Section R310.1 relies upon a NFPA 13D sprinkler system, or a system that complies with Section P2904 of the IRC.

The provisions of NFPA 13D, including its requirements for water supply and discharge, type of sprinkler heads and maximum number of operating ones, connection to the fire department, alarms, pumps, pressure valves, listing of components, installation and ongoing maintenance of the system, are not equivalent to those of NFPA 13 or NFPA 13R. An NFPA 13D system does not provide the same level of coverage as a 13 or 13R system does and it is not subject to the same level of maintenance inspections. Also, the NFPA 13D system relies upon a water reservoir and pump that is to be provided within the home and which is only required to have a 10 minute water supply, as opposed to the 30 minute water supply required for a NFPA 13 or 13R system. Single family homes are not required to be provided with the same level of emergency back-up systems as are required for other occupancies, municipalities or other agencies responsible for fire protection. In situations such as natural disasters where power or water systems are disrupted the fire suppression system may not deploy. Most R3 buildings for example are not equipped with back-up power or water storage tanks as required for other occupancies. Therefore, it would be inappropriate to expand the existing IBC exception, which relies upon a NFPA 13 or a3R system, into the IRC with reliance upon a NFPA 13D system.

It should also be noted that escaping fire is only one reason people have for egressing from their home through a window. There may be other causes that are just as significant from a life safety standpoint, such as the need to escape from an intruder into the home. Elderly or incapacitated individuals experiencing a health-related emergency may need to leave the home by the closest route possible, and therefore require an alternate egress path provided by a window. This is also true if the home becomes full of other toxic fumes or gases, such as carbon monoxide. Providing a fire suppression system does not address these other concerns. In some cases burglary assault prevention advocates have advised home occupants to use the EERO as a means of escaping danger in their own home. They should be able to continue to rely on this passive exit path or rescue opening. Adding an exception for buildings equipped with an NFPA 13D system could create a scenario where a passive exit path or rescue opening is not provided, or any exterior windows in a sleeping room may even be covered with security bars or grills that would specifically prevent escape or egress through that opening.

The inappropriateness of expanding the existing IBC exception to buildings equipped with other sprinkler systems was demonstrated by the IBC Means of Egress Committee's Disapproval of Part I of E150, which would have added a 13D system to the current exception. Disapproval of E150, Part II would be consistent with the IBC MOE committee's action on Part I.

Final Action: AS AM AMPC____ D

NOTE: PART I REPRODUCED FOR INFORMATIONAL PURPOSES ONLY- SEE ABOVE.

E150-09/10, PART I – IBC MEANS OF EGRESS
1029.1 (IFC [B] 1029.1)

Proponent: Steven Orlowski, representing National Association of Home Builders

PART I – IBC MEANS OF EGRESS

Revise as follows:

1029.1 (IFC [B] 1029.1) General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue in Group R and I-1 occupancies. Basements and sleeping rooms below the fourth story above grade plane shall have at least one exterior emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, 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. In ~~other than Group R-3 occupancies,~~ Group R buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, ~~or~~ 903.3.1.2 or 903.3.1.3.
2. In other than Group R-3 occupancies, sleeping rooms provided with a door to a fire-resistance-rated corridor having access to two remote exits in opposite directions.
3. The emergency escape and rescue opening is permitted to open onto a balcony within an atrium in accordance with the requirements of Section 404, provided the balcony provides access to an exit and the dwelling unit or sleeping unit has a means of egress that is not open to the atrium.
4. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue windows.
5. High-rise buildings in accordance with Section 403.
6. 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 exit balcony that opens to a public way.
7. Basements without habitable spaces and having no more than 200 square feet (18.6m^2) in floor area shall not be required to have emergency escape windows.

Reason: Based on extensive research on the performance of residential smoke alarms, the NFPA 72 technical committee on residential alarms has determined that both ionization and photoelectric smoke alarms provide adequate escape time along the normal path of egress in both fast flaming and slow smoldering fires. In tests conducted by NIST, the results show that when smoke alarms are present and functioning properly, these devices will detect and notify the occupant with enough time to vacate the structure prior to untenable conditions being reached within the dwelling. The purpose for the emergency egress is to provide a secondary means of escape and rescue, in the event that the normal path of egress becomes blocked or conditions are unsustainable.

During the last code development cycle, the sprinkler proponents testified that residential fire sprinklers are effective in 96% of the fires that grow large enough to activate the system. With the recent addition of residential sprinklers, the time for evacuating the structure before conditions become untenable and incapacitate the occupant have been extended. When sprinklers are used in tandem with smoke alarms, the available escape time in a fast flaming fire is increased and occupants are given more time for escape. Proponents also testified that when sprinklers are present it will provide additional time for firefighters to conduct search and rescue, since the fire will be either extinguished or contained.

If homes are required to be equipped with both an active suppression system and alarm system, it is time to start reevaluating the need for some of the passive life safety features in the home that have previously been justified to protect occupants in the event of a fire. While this proposal may raise the eyebrows of many skeptics, the concept of not requiring emergency egress and rescue openings in one- and two-family dwellings equipped with an automatic suppression system is not new since this exception has been permitted in NFPA 101 The Life Safety Code for several years. In addition, the International Building Code has exempted R-1, R-2 and I-1 occupancies from requiring emergency escape and rescue openings when an approved automatic suppressions system is installed.

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

PART I IBC MEANS OF EGRESS
Committee Action: **Disapproved**

Committee Reason: Group R-3 is unique in that it is only required to have one means of egress, therefore the redundancy of the emergency escape window is needed. Early suppression and early detection saves lives, but there are no maintenance requirements for a NFPA13D system, therefore, there is a concern that the chance of these systems to be out of service is high enough that removal of the requirement for a secondary exit through the emergency escape window is not warranted. There is no alert element on an NFPA13D system, and while smoke detectors are good at detection, they are not always the best at alerting. In a person's home the may be sleeping, intoxicated or unable to evacuate without assistance – this can cause delayed evacuation, thus the real need for the emergency escape windows. One of the opponent indicated that not having emergency escape windows in group homes may be a violation of federal law – that needs to be investigated. There needs to be more information on the entry rescue issues brought up by the fire service, including their use in non-fire emergencies.

Assembly Action: **None**

E151-09/10, PART III
IBC [P] 2902.4, IPC 403.4

NOTE: PARTS I, II AND IV DID NOT RECEIVE A PUBLIC COMMENT AND ARE ON THE CONSENT AGENDA. PART I, II AND IV ARE REPRODUCED FOR INFORMATIONAL PURPOSES ONLY FOLLOWING ALL OF PART III.

Proposed Change as Submitted

PART III – IPC

Revise 2902.4 to match IPC 403.4 as follows:

SECTION [P] 2902 (IPC 403.4)
MINIMUM PLUMBING FACILITIES

[P] 2902.4 Signage. ~~A legible sign designating the sex shall be provided in a readily visible location near the entrance to each toilet facility~~. Required public facilities shall be designated by a legible sign for each sex. Signs shall be readily visible and located near the entrance to each toilet facility. Signs for accessible toilet facilities shall comply with Section 1110 ~~ICC A117.1~~.

IPC 403.4 Signage. Required *public* facilities shall be designated by a legible sign for each sex. Signs shall be readily visible and located near the entrance to each toilet facility. Signs for accessible toilet facilities shall comply with Section 1110 of the *International Building Code*.

Reason:
Part III – IPC – 2902.4 (IPC 403.4) – The reference to the signage requirements in Chapter 11 will help a user locate all the provisions for accessible signage associated with toilet rooms and in addition will pick up the ICC A117.1 references. The signage requirements in Chapter 29 should match the Plumbing Code requirements.

ICCFILENAME:Wiehle-E8-1101.2

Public Hearing Results

PART III- IPC
Committee Action: **Approved as Submitted**

Committee Reason: The revisions clarify the applicable technical requirements in ICC A117.1 for signage at toilet rooms.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Lawrence Brown, CBO, representing National Association of Home Builders (NAHB), requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

[P] 2902.4 Signage. Required public facilities shall be ~~designated by~~ provided with a ~~legible~~ sign ~~for each~~ designating the sex. Signs shall be readily visible and located near the entrance to each toilet facility. Signs for accessible toilet facilities shall comply with Section 1110.

IPC 403.4 Signage. Required *public* facilities shall be ~~designated by~~ provided with a ~~legible~~ sign ~~for each~~ designating the sex. Signs shall be readily visible and located near the entrance to each toilet facility. Signs for accessible toilet facilities shall comply with Section 1110 of the *International Building Code*.

Commenter's Reason: This modification is proposed as the IPC and IBC do not always require a separate toilet facility for each sex, as shown below in the Exceptions to Section 2902.2. As Section 2902.4 (above) only addresses the signs themselves, is it more appropriate that sign itself have the correct designation for the sex, or for a facility that can be used by either sex. This modification achieves this intent.

[P] 2902.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for *dwelling units* and *sleeping units*.
2. Separate facilities shall not be required in structures or tenant spaces with a total *occupant load*, including both employees and customers of 15 or less.
3. Separate facilities shall not be required in mercantile occupancies in which the maximum *occupant load* is 50 or less.

Final Action: AS AM AMPC____ D

NOTE: PART I, II, AND III REPRODUCED FOR INFORMATIONAL PURPOSES ONLY – SEE ABOVE.

E151-09/10, PART I-IBC MEANS OF EGRESS
406.2.2, 1007.9 (IFC [B] 1007.9), 1011.3 (IFC [B] 1011.3), 1022.8 (IFC [B] 1022.8), 1104.4, 1106.7, 1108.2.2, 1108.2.3, 1108.4.1.1, 1108.4.1.2, 1108.4.1.4, 1108.4.1.5, 1109.1, 1109.2.1.1, 1109.2.2, 1109.2.3, 1109.3, 1109.4, 1109.6, 1109.8, 1109.13, [P] 2902.4, 3001.3, 3411.6, E104.3, E105.1, E105.2.1, E105.2.2, E105.3, E105.4, E105.6, E106.2, E106.3, E106.4, E106.4.9, E106.5, E107.2, E109.2.1, E109.2.2.1, E109.2.6, E109.2.8, E110.4

PART I – IBC MEANS OF EGRESS

Revise as follows:

1101.2 Design. Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1.

SECTION 1102
DEFINITIONS

1102.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

ACCESSIBLE UNIT. A dwelling unit or sleeping unit that complies with this code and the provisions for Accessible units in ICC A117.1.

TYPE A UNIT. A dwelling unit or sleeping unit designed and constructed for accessibility in accordance with this code and the provisions for Type A units in ICC A117.1.

TYPE B UNIT. A dwelling unit or sleeping unit designed and constructed for accessibility in accordance with this code and the provisions for Type B units in ICC A117.1, consistent with the design and construction requirements of the federal Fair Housing Act.

1104.4 Multilevel buildings and facilities. At least one accessible route shall connect each accessible level, including mezzanines, in multilevel buildings and facilities.

Exceptions:

1. An accessible route is not required to stories and mezzanines that have an aggregate area of not more than 3,000 square feet (278.7 m^2) and are located above and below accessible levels. This exception shall not apply to:
   1.1. Multiple tenant facilities of Group M occupancies containing five or more tenant spaces;
   1.2. Levels containing offices of health care providers (Group B or I); or
   1.3. Passenger transportation facilities and airports (Group A-3 or B).

2. Levels that do not contain accessible elements or other spaces as determined by Section 1107 or 1108 are not required to be served by an accessible route from an accessible level.
3. In air traffic control towers, an accessible route is not required to serve the cab and the floor immediately below the cab.
4. Where a two-story building or facility has one story with an occupant load of five or fewer persons that does not contain public use space, that story shall not be required to be connected by an accessible route to the story above or below.
5. Vertical access to elevated employee work stations within a courtroom is not required at the time of initial construction, provided a ramp, lift or elevator ~~complying with ICC A117.1~~ can be installed without requiring reconfiguration or extension of the courtroom or extension of the electrical system.

1106.7 Passenger loading zones. Passenger loading zones shall be accessible ~~designed and constructed in accordance with ICC A117.1~~.

1107.2 Design. Dwelling units and sleeping units that are required to be Accessible units, Type A units and Type B units shall comply with the applicable portions of Chapter 10 of ICC A117.1. Units required to be Type A units are permitted to be designed and constructed as Accessible units. Units required to be Type B units are permitted to be designed and constructed as Accessible units or as Type A units.

1108.2.2 Wheelchair spaces. In theaters, bleachers, grandstands, stadiums, arenas and other fixed seating assembly areas, accessible wheelchair spaces ~~complying with ICC A117.1~~ shall be provided in accordance with Sections 1108.2.2.1 through 1108.2.2.4.

1108.2.3 Companion seats. At least one companion seat ~~complying with ICC A117.1~~ shall be provided for each wheelchair space required by Sections 1108.2.2.1 through 1108.2.2.3.

1108.4.1.1 Jury box. A wheelchair space ~~complying with ICC A117.1~~ shall be provided within the jury box.

Exception: Adjacent companion seating is not required.

1108.4.1.2 Gallery seating. Wheelchair spaces ~~complying with ICC A117.1~~ shall be provided in accordance with Table 1108.2.2.1. Designated aisle seats shall be provided in accordance with Section 1108.2.5.

1108.4.1.4 Employee work stations. The judge's bench, clerk's station, bailiff's station, deputy clerk's station and court reporter's station shall be located on an accessible route. The vertical access to elevated employee work stations within a courtroom is not required at the time of initial construction, provided a ramp, lift or elevator ~~complying with ICC A117.1~~ can be installed without requiring reconfiguration or extension of the courtroom or extension of the electrical system.

1108.4.1.5 Other work stations. The litigant's and counsel stations, including the lectern, shall be accessible ~~in accordance with ICC A117.1~~.

1109.1 General. Accessible building features and facilities shall be provided in accordance with Sections 1109.2 through 1109.14.

Exception: Accessible units, Type A units and Type B units shall comply with Chapter 10 of ICC A117.1.

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

Exceptions:

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

1109.2.1.1 Standard. Family or assisted-use toilet and bathing rooms shall comply with Sections 1109.2.1.2 through 1109.2.1.7 ~~and ICC A117.1~~.

1109.2.2 Water closet compartment. Where water closet compartments are provided in a toilet room or bathing facility, at least one wheelchair-accessible compartment shall be provided. Where the combined total water closet compartments and urinals provided in a toilet room or bathing facility is six or more, at least one ambulatory-accessible water closet compartment shall be provided in addition to the wheelchair-accessible compartment. ~~Wheelchair-accessible and ambulatory-accessible compartments shall comply with ICC A117.1.~~

1109.2.3 Lavatories. Where lavatories are provided, at least 5 percent, but not less than one, shall be *accessible*. Where the total lavatories provided in a toilet room or bathing facility is six or more, at least one lavatory with enhanced reach ranges ~~in accordance with ICC A117.1~~, shall be provided.

1109.3 Sinks. Where sinks are provided, at least 5 percent but not less than one provided in accessible spaces shall be accessible ~~comply with ICC A117.1~~.
Exception: Mop or service sinks are not required to be accessible.

1109.4 Kitchens and kitchenettes. Where kitchens and kitchenettes are provided in accessible spaces or rooms, they shall be accessible ~~in accordance with ICC A117.1~~.

1109.6 Elevators. Passenger elevators on an accessible route shall be accessible and comply with ~~Section 3001.3~~ Chapter 30.

1109.8 Storage. Where fixed or built-in storage elements such as cabinets, shelves, medicine cabinets, closets and drawers are provided in required accessible spaces, at least one of each type shall contain accessible storage space ~~complying with ICC A117.1~~.

1109.13 Fuel-dispensing systems. Fuel-dispensing systems shall be accessible ~~comply with ICC A117.1~~.

SECTION 406
MOTOR-VEHICLE-RELATED OCCUPANCIES

406.2.2 Clear height. The clear height of each floor level in vehicle and pedestrian traffic areas shall not be less than 7 feet (2134 mm). Vehicle and pedestrian areas accommodating van-accessible parking shall comply with ~~required by~~ Section 1106.5 ~~shall conform to ICC A117.1.~~

SECTION 1007 (IFC [B] 1007)
ACCESSIBLE MEANS OF EGRESS

1007.9 (IFC [B] 1007.9) Signage. Signage indicating special accessibility provisions shall be provided as shown:

1. Each door providing access to an *area of refuge* from an adjacent floor area shall be identified by a sign stating: AREA OF REFUGE.
2. Each door providing access to an exterior area for assisted rescue shall be identified by a sign stating: EXTERIOR AREA FOR ASSISTED RESCUE.

Signage shall comply with the ICC A117.1 requirements for visual characters and include the International Symbol of Accessibility. Where exit sign illumination is required by Section 1011.2, the signs shall be illuminated. Additionally, raised character and braille ~~tactile~~ signage complying with ICC A117.1 shall be located at each door to an *area of refuge* and exterior area for assisted rescue in accordance with Section 1011.3.

SECTION 1010 (IFC [B] 1010)
RAMPS

1010.1 (IFC [B] 1010.1) Scope. The provisions of this section shall apply to ramps used as a component of a means of egress.

Exceptions:

1. Other than ramps that are part of the accessible routes providing access in accordance with Sections 1108.2 through 1108.2.4 and 1108.2.6, ramped aisles within assembly rooms or spaces shall conform with the provisions in Section 1028.11.
2. Curb ramps shall comply with ICC A117.1.
3. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Sections 1010.3 through 1010.9 when they are not an accessible route serving accessible parking spaces, other required accessible elements or part of an accessible means of egress.

1010.6.5 (IFC [B] 1010.6.5) Doorways. Where doorways are located adjacent to a ramp landing, maneuvering clearances required by ICC A117.1 are permitted to overlap the required landing area.

1010.9 (IFC [B] 1010.9) Edge protection. Edge protection complying with Section 1010.9.1 or 1010.9.2 shall be provided on each side of ramp runs and at each side of ramp landings.

Exceptions:

1. Edge protection is not required on ramps that are not required to have handrails, provided they have flared sides that comply with the ICC A117.1 curb ramp provisions.
2. Edge protection is not required on the sides of ramp landings serving an adjoining ramp run or stairway.
3. Edge protection is not required on the sides of ramp landings having a vertical drop off of not more than ½ inch (12.7 mm) within 10 inches (254 mm) horizontally of the required landing area.
4. In assembly spaces with fixed seating, edge protection is not required on the sides of ramps where the ramps provide access to the adjacent seating and aisle accessways.

SECTION 1011(IFC [B] 1011)
EXIT SIGNS

1011.3 (IFC [B] 1011.3) ~~Tactile~~ Raised character and Braille exit signs. A ~~tactile~~ sign stating EXIT in raised characters and Braille and complying with ICC A117.1 shall be provided adjacent to each door to an area of refuge, an exterior area for assisted rescue, an exit stairway, an exit ramp, an exit passageway and the exit discharge.

SECTION 1022 (IFC [B] 1022)
EXIT ENCLOSURES

1022.8 (IFC [B] 1022.8) Floor identification signs. A sign shall be provided at each floor landing in exit enclosures connecting more than three stories designating the floor level, the terminus of the top and bottom of the exit enclosure and the identification of the stair or ramp. The signage shall also state the story of, and the direction to, the exit discharge and the availability of roof access from the enclosure for the fire department. The sign shall be located 5 feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions. In addition, floor level identification signs in ~~tactile~~ raised characters and Braille complying with ICC A117.1 shall be located at each floor level landing adjacent to the door leading from the enclosure into the corridor to identify the floor level.

CHAPTER 30
ELEVATORS AND CONVEYING SYSTEMS

3001.3 Accessibility. Passenger elevators required to be accessible ~~by Chapter 11 shall conform to ICC A117.1~~ or serve as part of an accessible means of egress shall comply with Section 1107 and 1109.6.

3008.13.1 Design and installation. The two-way communication system shall include audible and visible signals and shall be designed and installed in accordance with the requirements in ICC A117.1.

3008.13.2 Instructions. Instructions for the use of the two-way communication system along with the location of the station shall be permanently located adjacent to each station. Signage shall comply with the ICC A117.1 requirements for visual characters.

SECTION 3411 (IEBC 310)
ACCESSIBILITY FOR EXISTING BUILDINGS

3411.6 (IEBC 310.6) Alterations. A building, facility or element that is altered shall comply with the applicable provisions in Chapter 11 of this code ~~and ICC A117.1~~, unless technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent technically feasible.

Exceptions:

1. The altered element or space is not required to be on an accessible route, unless required by Section 3411.7.
2. Accessible means of egress required by Chapter 10 are not required to be provided in existing buildings and facilities.
3. The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall be permitted to meet the provision for a Type B dwelling unit ~~and shall comply with the applicable provisions~~ ~~in Chapter 11 and ICC A117.1~~.

3411.8.2 (IEBC 310.8.2) Elevators. Altered elements of existing elevators shall comply with ASME A17.1 and ICC A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

3411.8.3 (IEBC 310.8.3) Platform lifts. Platform (wheelchair) lifts complying with ICC A117.1 and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route.

APPENDIX E
SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS

E101.2 Design. Technical requirements for items herein shall comply with this code and ICC A117.1.

SECTION E104
SPECIAL OCCUPANCIES

E104.2 Accessible beds. In rooms or spaces having more than 25 beds, 5 percent of the beds shall have a clear floor space complying with ICC A117.1.

E104.2.1 Sleeping areas. A clear floor space complying with ICC A117.1 shall be provided on both sides of the accessible bed. The clear floor space shall be positioned for parallel approach to the side of the bed.

Exception: This requirement shall not apply where a single clear floor space complying with ICC A117.1 positioned for parallel approach is provided between two beds.

E104.3 Communication features. Accessible communication features ~~complying with ICC A117.1~~ shall be provided in accordance with Sections E104.3.1 through E104.3.4.

E104.3.4 Notification devices. Visual notification devices shall be provided to alert room occupants of incoming telephone calls and a door knock or bell. Notification devices shall not be connected to visual alarm signal appliances. Permanently installed telephones shall have volume controls and an electrical outlet complying with ICC A117.1 located within 48 inches (1219 mm) of the telephone to facilitate the use of a TTY.

SECTION E105
OTHER FEATURES AND FACILITIES

E105.1 Portable toilets and bathing rooms. Where multiple single-user portable toilet or bathing units are clustered at a single location, at least 5 percent, but not less than one toilet unit or bathing unit at each cluster, shall be accessible ~~comply with ICC A117.1~~. Signs containing the International Symbol of Accessibility ~~and complying with ICC A117.1~~ shall identify accessible portable toilets and bathing units.

Exception: Portable toilet units provided for use exclusively by construction personnel on a construction site.

E105.2.1Washing machines. Where three or fewer washing machines are provided, at least one shall be accessible ~~comply with ICC A117.1~~. Where more than three washing machines are provided, at least two shall be accessible ~~comply with ICC A117.1~~.

E105.2.2 Clothes dryers. Where three or fewer clothes dryers are provided, at least one shall be accessible ~~comply with ICC A117.1~~. Where more than three clothes dryers are provided, at least two shall be accessible ~~comply with ICC A117.1~~.

E105.3 Depositories, vending machines, change machines and similar equipment. Where provided, at least one of each type of depository, vending machine, change machine and similar equipment shall be accessible ~~comply with ICC A117.1~~.

Exception: Drive-up-only depositories are not required to comply with this section.

E105.4 Mailboxes. Where mailboxes are provided in an interior location, at least 5 percent, but not less than one, of each type shall be accessible ~~comply with ICC A117.1~~. In residential and institutional facilities, where mailboxes are provided for each dwelling unit or sleeping unit, mailboxes be accessible ~~complying with ICC A117.1~~ shall be provided for each unit required to be an Accessible unit.

E105.6 Two-way communication systems. Where two-way communication systems are provided to gain admittance to a building or facility or to restricted areas within a building or facility, the system shall be accessible ~~comply with ICC A117.1~~.

SECTION E106
TELEPHONES

E106.2 Wheelchair-accessible telephones. Where public telephones are provided, wheelchair-accessible telephones ~~complying with ICC A117.1~~ shall be provided in accordance with Table E106.2.

Exception: Drive-up-only public telephones are not required to be accessible.

E106.3 Volume controls. All public telephones provided shall have accessible volume control ~~complying with ICC A117.1~~.

E106.4 TTYs. TTYs ~~complying with ICC A117.1~~ shall be provided in accordance with Sections E106.4.1 through E106.4.9.

E106.4.9 Signs. Public TTYs shall be identified by the International Symbol of TTY ~~complying with ICC A117.1~~. Directional signs indicating the location of the nearest public TTY shall be provided at banks of public pay telephones not containing a public TTY. Additionally, where signs provide direction to public pay telephones, they shall also provide direction to public TTYs. Such signs shall comply with visual signage requirements in ICC A117.1 and shall include the International Symbol of TTY.

E106.5 Shelves for portable TTYs. Where a bank of telephones in the interior of a building consists of three or more public pay telephones, at least one public pay telephone at the bank shall be provided with a shelf and an electrical outlet ~~in accordance with ICC A117.1~~.

Exceptions:

1. In secured areas of detention and correctional facilities, if shelves and outlets are prohibited for purposes of security or safety shelves and outlets for TTYs are not required to be provided.
2. The shelf and electrical outlet shall not be required at a bank of telephones with a TTY.

SECTION E107
SIGNAGE

E107.1 Signs. Required accessible portable toilets and bathing facilities shall be identified by the International Symbol of Accessibility.

E107.2 Designations. Interior and exterior signs identifying permanent rooms and spaces shall be ~~tactile~~ raised characters and braille. Where pictograms are provided as designations of interior rooms and spaces, the pictograms shall have ~~tactile~~ raised character and braille text descriptors. ~~Signs required to provide tactile characters and pictograms shall comply with ICC A117.1~~.

Exceptions:

1. Exterior signs that are not located at the door to the space they serve are not required to comply.
2. Building directories, menus, seat and row designations in assembly areas, occupant names, building addresses and company names and logos are not required to comply.
3. Signs in parking facilities are not required to comply.
4. Temporary (seven days or less) signs are not required to comply.
5. In detention and correctional facilities, signs not located in public areas are not required to comply.

E107.3 Directional and informational signs. Signs that provide direction to, or information about, permanent interior spaces of the site and facilities shall contain visual characters complying with ICC A117.1.

Exception: Building directories, personnel names, company or occupant names and logos, menus and temporary (seven days or less) signs are not required to comply with ICC A117.1.

SECTION E108
BUS STOPS

E108.3 Bus shelters. Where provided, new or replaced bus shelters shall provide a minimum clear floor or ground space complying with ICC A117.1, Section 305, entirely within the shelter. Such shelters shall be connected by an accessible route to the boarding area required by Section E108.2.

E108.4 Signs. New bus route identification signs shall have finish and contrast complying with ICC A117.1. Additionally, to the maximum extent practicable, new bus route identification signs shall provide visual characters complying with ICC A117.1.

Exception: Bus schedules, timetables and maps that are posted at the bus stop or bus bay are not required to meet this requirement.

SECTION E109
TRANSPORTATION FACILITIES AND STATIONS

E109.2.1 Station entrances. Where different entrances to a station serve different transportation fixed routes or groups of fixed routes, at least one entrance serving each group or route shall comply with Section 1104 ~~and ICC A117.1~~.

E109.2.2.1 ~~Tactile~~ Raised character and braille signs. Where signs are provided at entrances to stations identifying the station or the entrance, or both, at least one sign at each entrance shall be ~~tactile~~ raised characters and braille. A minimum of one ~~tactile~~ raised character and braille sign identifying the specific station shall be provided on each platform or boarding area. Such signs shall be placed in uniform locations at entrances and on platforms or boarding areas within the transit system to the maximum extent practicable. ~~Tactile signs shall comply with ICC A117.1~~.

Exceptions:

1. Where the station has no defined entrance but signs are provided, the ~~tactile~~ raised character and braille signs shall be placed in a central location.
2. Signs are not required to be ~~tactile~~ raised character and braille where audible signs are remotely transmitted to hand-held receivers, or are user or proximity actuated.

E109.2.2.2 Identification signs. Stations covered by this section shall have identification signs containing visual characters complying with ICC A117.1. Signs shall be clearly visible and within the sightlines of a standing or sitting passenger from within the train on both sides when not obstructed by another train.

E109.2.2.3 Informational signs. Lists of stations, routes and destinations served by the station which are located on boarding areas, platforms or mezzanines shall provide visual characters complying with ICC A117.1 Signs covered by this provision shall, to the maximum extent practicable, be placed in uniform locations within the transit system.

E109.2.3 Fare machines. Self-service fare vending, collection and adjustment machines shall comply with ICC A117.1, Section 707. Where self-service fare vending, collection or adjustment machines are provided for the use of the general public, at least one accessible machine of each type provided shall be provided at each accessible point of entry and exit.

E109.2.5 TTYs. Where a public pay telephone is provided in a transit facility (as defined by the Department of Transportation) at least one public TTY complying with ICC A117.1, Section 704.4, shall be provided in the station. In addition, where one or more public pay telephones serve a particular entrance to a transportation facility, at least one TTY telephone complying with ICC A117.1, Section 704.4, shall be provided to serve that entrance.

E109.2.6 Track crossings. Where a circulation path serving boarding platforms crosses tracks, an accessible route ~~complying with ICC A117.1~~ shall be provided.

Exception: Openings for wheel flanges shall be permitted to be 21/2 inches (64 mm) maximum.

E109.2.8 Clocks. Where clocks are provided for use by the general public, the clock face shall be uncluttered so that its elements are clearly visible. Hands, numerals and digits shall contrast with the background either light-on-dark or dark-on-light. Where clocks are mounted overhead, numerals and digits shall comply with visual character requirements ~~ICC A117.1, Section 703.2~~.

SECTION E110
AIRPORTS

E110.2 TTYs. Where public pay telephones are provided, at least one TTY shall be provided in compliance with ICC A117.1, Section 704.4. Additionally, if four or more public pay telephones are located in a main terminal outside the security areas, a concourse within the security areas or a baggage claim area in a terminal, at least one public TTY complying with ICC A117.1, Section 704.4, shall also be provided in each such location.

E110.4 Clocks. Where clocks are provided for use by the general public, the clock face shall be uncluttered so that its elements are clearly visible. Hands, numerals and digits shall contrast with their background either light-on-dark or dark-on-light. Where clocks are mounted overhead, numerals and digits shall comply with visual character requirements ~~ICC A117.1, Section 703.2~~.

Reason:
PART I-IBC
Section 1101.2 establishes ICC A117.1 as the standard for accessible design for Chapter 11. Section E101.2 establishes ICC A117.1 as the standard for accessible design for Appendix E. It is unnecessary to repeat this throughout Chapter 11 or Appendix E unless the specific text is an exception to the standard (Ex: Section 1109.2 Ex. 1) or a specific item within the standard (Ex: Section 1002.1, Definitions for Accessible Unit, Type A unit and Type B unit) . Providing the reference in a haphazard manner within the chapter only serves to create confusion. This is an editorial issue and the editorial committee should verify that there are not other occurrences of this in the chapter. The text provided shows all of the location where ICC A117.1 is currently referenced.

1109.1 – The revisions is correlative with the 2003 A117.1 including Accessible Units in Chapter 10 which only included Type A and Type B units in the 1998 edition. The definition for Accessible units was correlated and approved with the new edition, but this exception was missed.

1109.6 – the reference to Section 3001.3 is only a reference to ICC A117.1, which is not needed since it is already called out in Section 1101.2. All elevators have to comply with Chapter 30 for safety.

406.2.2 – the reference to Section 1106.5 for accessible parking automatically gets ICC A117.1.

1007.9 – ICC A117.1 has changed 'tactile' requirements for signage to 'raised characters and braille'. This revision would correlate with the standard.

1011.3 – ICC A117.1 has changed 'tactile' requirements for signage to 'raised characters and braille'. This revision would correlate with the standard.

3411.6 (IEBC 310.6) - The reference to IBC Chapter 11 already gets the ICC A117.1.

Changes for 'tactile characters' to 'raised characters and braille' is consistent with revisions to the 2009 edition in A117.1.

PART I - IBC MEANS OF EGRESS
Committee Action: **Approved as Submitted**

Modify the proposal as follows (editorial correction):

3001.3 Accessibility. Passenger elevators required to be accessible or serve as part of an accessible means of egress shall comply with ~~Section 1107~~ Sections 1007 and 1109.6.

E105.4 Mailboxes. Where mailboxes are provided in an interior location, at least 5 percent, but not less than one, of each type shall be accessible. In residential and institutional facilities, where mailboxes are provided for each dwelling unit or sleeping unit, accessible mailboxes ~~be accessible~~ shall be provided for each unit required to be an Accessible unit.

(Portions of proposal not shown remain unchanged.)

Committee Reason: The selective deletions of the reference to ICC A117.1 remove redundant text. Revisions in terminology for tactile signage coordinate with revisions in the 2009 edition of ICC A117.1.

Assembly Action: **None**

E151-09/10, PART II-IFC
IFC 907.5.2.3.4 (IBC [F] 907.5.2.3.4)

PART II – IFC

Revise as follows:

SECTION [F] 907 (IFC 907)
FIRE ALARM AND DETECTION SYSTEMS

[F] 907.5.2.3.4 (IFC 907.5.2.3.4) Group R-2. In Group R-2 occupancies required by Section 907 to have a fire alarm system, all dwelling units and sleeping units shall be provided with the capability to support visible alarm notification appliances in accordance with Chapter 10 of ICC A117.1.

Reason: Part II – IFC - 907.5.2.3.4 – in this situation, the more specific reference would clarify to users where the alarm requirements for dwelling units are found. This would be consistent with the definitions of Accessible units, Type A units and Type B units.

PART II- IFC
Committee Action: **Approved as Submitted**

Committee Reason: The revisions clarify the applicable technical requirements in ICC A117.1 for visible alarms in dwelling units.

Assembly Action: **None**

E151-09/10, PART IV-IEBC
IEBC 605.1

PART IV – IEBC

SECTION 605
ACCESSIBILITY

605.1 General. A building, facility or element that is altered shall comply with the applicable provisions in Sections 605.1.1 through 605.1.14, Chapter 11 of the International Building Code ~~and ICC A117.1~~ unless it is technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent that is technically feasible. A building, facility or element that is constructed or altered to be accessible shall be maintained accessible during occupancy.

Exceptions:

1. The altered element or space is not required to be on an accessible route unless required by Section 605.2.
2. Accessible means of egress required by Chapter 10 of the International Building Code are not required to be provided in existing buildings and facilities.
3. Type B dwelling or sleeping units required by Section 1107 of the International Building Code are not required to be provided in existing buildings and facilities.
4. The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall be permitted to meet the provisions for Type B dwelling units ~~and shall comply with the applicable provisions in Chapter 11 of the International Building Code and ICC A117.1~~.

605.1.2 Elevators. Altered elements of existing elevators shall comply with ASME A17.1 and ICC A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

605.1.3 Platform lifts. Platform (wheelchair) lifts complying with ICC A117.1 and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route.

Reason: Part IV – IEBC – 605.1 – The reference to IBC Chapter 11 already gets the ICC A117.1.

PART IV- IEBC
Committee Action: **Approved as Submitted**

Committee Reason: The selective deletions of the reference to ICC A117.1 remove redundant text.

Assembly Action: **None**

E152-09/10, Part I

1102.1, 1104.2, 1104.3, 1109.7, 1109.14, 1110 (New), 3411.8, 3411.8.15 (New), 3411.8.16 (New) [IEBC [B] 310.8, 310.8.15 (New), 310.8.16 (New)

Proposed Change as Submitted

Proponent: Marsha K. Mazz, U.S. Architectural and Transportation Barriers Compliance Board (Access Board)

PART I – IBC MEANS OF EGRESS

1. Add new definitions as follows:

1102.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

AMUSEMENT RIDE. A system that moves persons through a fixed course within a defined area for the purpose of amusement.

AMUSEMENT RIDE SEAT. A seat that is built-in or mechanically fastened to an amusement ride intended to be occupied by one or more passengers.

AREA OF SPORT ACTIVITY. That portion of a room or space where the play or practice of a sport occurs.

BOARDING PIER. A portion of a pier where a boat is temporarily secured for the purpose of embarking or disembarking.

BOAT LAUNCH RAMP. A sloped surface designed for launching and retrieving trailered boats and other water craft to and from a body of water.

BOAT SLIP. That portion of a pier, main pier, finger pier, or float where a boat is moored for the purpose of berthing, embarking, or disembarking.

GANGWAY. A variable-sloped pedestrian walkway that links a fixed structure or land with a floating structure. Gangways which connect to vessels are not included.

GOLF CAR PASSAGE. A continuous passage on which a motorized golf car can operate.

PLAY AREA. A portion of a site containing play components designed and constructed for children.

PLAY COMPONENT. An element intended to generate specific opportunities for play, socialization, or learning. Play components may be manufactured or natural, and may be stand alone or part of a composite play structure.

TEEING GROUND. In golf, the starting place for the hole to be played.

TRANSFER DEVICE. Equipment designed to facilitate the transfer of a person from a wheelchair or other mobility device to and from an amusement ride seat.

2. Revise as follows:

1104.2 Within a site. At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements and accessible spaces that are on the same site.

Exceptions:

1. An accessible route is not required between accessible buildings, accessible facilities, accessible elements and accessible spaces that have, as the only means of access between them, a vehicular way not providing for pedestrian access.
2. An accessible route to recreational facilities is not required when exempted under Sections 1110.4 or 1110.6

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

Exceptions:

1. In assembly areas with fixed seating, an accessible route shall not be required to serve levels where wheelchair spaces are not provided.
2. In Group I-2 facilities, doors to sleeping units shall be exempted from the requirements for maneuvering clearance at the room side provided the door is a minimum of 44 inches (1118 mm) in width.
3. An accessible route to recreational facilities is not required when exempted under Sections 1110.4 or 1110.6

1109.7 Lifts. Platform (wheelchair) lifts are permitted to be a part of a required accessible route in new construction where indicated in Items 1 through ~~10~~ 11. Platform (wheelchair) lifts shall be installed in accordance with ASME A18.1.

1. An accessible route to a performing area and speaker platforms in Group A occupancies.
2. An accessible route to wheelchair spaces required to comply with the wheelchair space dispersion requirements of Sections 1108.2.2 through 1108.2.6.
3. An accessible route to spaces that are not open to the general public with an occupant load of not more than five.
4. An accessible route within a dwelling or sleeping unit.
5. An accessible route to wheelchair seating spaces located in outdoor dining terraces in Group A-5 occupancies where the means of egress from the dining terraces to a public way are open to the outdoors.
6. An accessible route to jury boxes and witness stands; raised courtroom stations including judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations and court reporters' stations; and to depressed areas such as the well of the court.
7. An accessible route to load and unload areas serving amusement rides.
8. An accessible route to play components or soft contained play structures.
9. An accessible route to team or player seating areas serving areas of sport activity.
10. An accessible route where existing exterior site constraints make use of a ramp or elevator infeasible.
11. Platform lifts shall be permitted to be used instead of gangways that are part of accessible routes serving recreational boating facilities and fishing piers and platforms.

SECTION 1110
RECREATIONAL FACILITIES

1110.1 ~~1109.14~~ Recreational and sports facilities. Recreational and sports facilities shall be provided with accessible features in accordance with Sections 1110.2 ~~1109.14.1~~ through 1110.6 ~~1109.14.4~~.

1110.2 ~~1109.14.1~~ Facilities serving Type B units in a single building. In Group R-2 and R-3 occupancies where recreational facilities are provided serving a single building containing ~~Type A units or~~ Type B units, 25 percent, but not less than one, of each type of recreational facility shall be accessible. Every recreational facility of each type on a site shall be considered to determine the total number of each type that is required to be accessible.

1110.3 ~~1109.14.2~~ Facilities serving Type B units in multiple buildings. In Group R-2 and R-3 occupancies on a single site where multiple buildings containing ~~Type A units or~~ Type B units are served by recreational facilities, 25 percent, but not less than one, of each type of recreational facility serving each building shall be accessible. The total number of each type of recreational facility that is required to be accessible shall be determined by considering every recreational facility of each type serving each building on the site.

1110.4 Facilities serving Accessible and Type A units. In Group R-2 and R-3 occupancies where recreational facilities are provided serving Accessible or Type A units, every recreational facility of each type serving Accessible or Type A units shall be accessible.

1110.5 ~~1109.14.3~~ Other occupancies. All recreational facilities not falling within the purview of Section 1110.2 through 1110.4 ~~1109.14.1 or 1109.14.2~~ shall comply with ICC A117.1 and be located on an accessible route ~~be accessible~~. Each area of sports activity shall be served by an accessible route. Accessible route shall also comply with Section 1110.5.1 through 1110.5.3.

Exception: Areas of sport activity shall not be required to comply with ICC A117.1.

1110.5.1 Protruding objects. Protruding objects shall comply with the requirements of Sections 1003.3.

Exception: Within play areas, protruding objects on circulation paths shall not be required to comply with 1003.3 provided that ground level accessible routes provide vertical clearance in compliance with 1003.3.1.

1110.5.2 Floor surface. Walking surfaces of the accessible route shall comply with ICC ANSI A117.1.

Exception: Within animal containment areas, floor and ground surfaces shall not be required to be stable, firm, and slip resistant.

1110.5.3 Changes in Level. Where changes in level are permitted in floor or ground surfaces, they shall comply with ICC A117.1 for changes in level.

Exception: Animal containment areas shall not be required to comply with ICC A117.1.

1110.6 ~~1109.14.4~~ Recreational and sports facilities exceptions. Recreational and sports facilities required to be accessible shall be exempt from this chapter to the extent specified in this section.

1110.6.1 ~~1108.2.2.4~~ Team or player seating. At least one wheelchair space shall be provided in team or player seating areas serving areas of sport activity.

Exception: Wheelchair spaces shall not be required in team or player seating areas serving bowling lanes that are not required to be located on an accessible route in accordance with Section ~~1109.14.4.1~~ 1110.6.2.

1110.6.2 ~~1109.14.4.1~~ Bowling lanes. An accessible route shall be provided to at least 5 percent, but no less than one, of each type of bowling lane.

1110.6.3 ~~1109.14.4.2~~ Court sports. In court sports, at least one accessible route shall directly connect both sides of the court.

1110.6.4 ~~1109.14.4.3~~ Raised boxing or wrestling rings. Raised boxing or wrestling rings are not required to be accessible or to be on an accessible route.

1110.6.5 ~~1109.14.4.4~~ Raised refereeing, judging and scoring areas. Raised structures used solely for refereeing, judging or scoring a sport are not required to be accessible or to be on an accessible route.

1110.6.6 Swimming pools, wading pools and spas. Swimming pools, wading pools, and spas shall comply with ICC A117.1.

1110.6.6.1 ~~1109.14.4.5~~ Raised diving boards and diving platforms. Raised diving boards and diving platforms are not required to be accessible or to be on an accessible route.

1110.6.6.2 Water Slides. Water slides are not be required to be accessible or to be on an accessible route.

1110.6.7 Amusement Rides. Amusement rides shall comply with Section 1110.6.7.1 through 1110.6.7.3.

Exception: Mobile or portable amusement rides shall not be required to be accessible.

1110.6.7.1 Load and Unload Areas. Load and unload areas serving amusement rides shall comply with ICC A117.1.

1110.6.7.2 Minimum Number. Amusement rides shall provide at least one wheelchair space, or at least one amusement ride seat designed for transfer, or at least one transfer device.

Exceptions:

1. Amusement rides that are controlled or operated by the rider shall not be required to comply with this section.

2. Amusement rides designed primarily for children, where children are assisted on and off the ride by an adult, shall not be required to comply with this section.
3. Amusement rides that do not provide amusement ride seats shall not be required to comply with this section.

1110.6.7.3 Amusement Rides. Accessible amusement rides shall be on an accessible routes in accordance with Section 1110.6.7.3.1 and 1110.6.7.3.2.

1110.6.7.3.1 Load and Unload Areas. Load and unload areas shall be on an accessible route. Where load and unload areas have more than one loading or unloading position, at least one loading and unloading position shall be on an accessible route.

1110.6.7.3.2 Wheelchair Spaces, Ride Seats Designed for Transfer, and Transfer Devices. When amusement rides are in the load and unload position, wheelchair spaces, amusement ride seats designed for transfer and transfer devices shall be on an accessible route.

1110.6.8 Recreational Boating Facilities. Boat slips required to be accessible by Section 1110.6.8.1 and 1110.6.8.2 and boarding piers at boat launch ramps required to be accessible by Section 1110.6.8.3 shall be on an accessible route.

1110.6.8.1 Boat Slips. Boat slips complying with ICC A117.1 shall be provided in accordance with Table 1110.6.8.1. Where the number of boat slips is not identified, each 40 feet (12 m) of boat slip edge provided along the perimeter of the pier shall be counted as one boat slip for the purpose of this section.

TABLE 1110.6.8.1
BOAT SLIPS

Total Number of Boating Slips Provided in Facility	Minimum Number of Required Accessible Boating Slips
1 to 25	1
26 to 50	2
51 to 100	3
101 to 150	4
151 to 300	5
301 to 400	6
401 to 500	7
501 to 600	8
601 to 700	9
701 to 800	10
801 to 900	11
901 to 1000	12
1001 and over	12, plus 1 for every 100, or fraction thereof, over 1000

1110.6.8.2 Dispersion. Accessible boat slips shall be dispersed throughout the various types of boat slips provided. Where the minimum number of accessible boat slips 1 has been met, no further dispersion shall be required.

1110.6.8.3 Boarding Piers at Boat Launch Ramps. Where boarding piers are provided at boat launch ramps, at least 5 percent, but no fewer than one, of the boarding piers shall comply with ICC A117.1.

1110.6.9 Exercise Machines and Equipment. At least one of each type of exercise machines and equipment shall comply with ICC A117.1 and shall be on an accessible route.

1110.6.10 Fishing Piers and Platforms. Fishing piers and platforms shall comply with ICC A117.1 and be on an accessible route.

1110.6.11 Golf Facilities. Golf facilities shall comply with 1110.6.11.1 through 1110.6.11.3.

1110.6.11.1 Golf Courses. Golf courses shall comply with 1110.6.11.1.1 through 1110.6.11.1.3.

1110.6.11.1.1 Teeing Grounds. Where one teeing ground is provided for a hole, the teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where two teeing grounds are provided for a hole, the forward teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where three or more teeing grounds are provided for a hole, at least two teeing grounds, including the forward teeing ground, shall be designed and constructed so that a golf car can enter and exit each teeing ground.

1110.6.11.1.2 Putting Greens. Putting greens shall be designed and constructed so that a golf car can enter and exit the putting green.

1110.6.11.1.3 Weather Shelters. Where provided, weather shelters shall be designed and constructed so that a golf car can enter and exit the weather shelter and shall comply with ICC A117.1.

1110.6.11.2 Practice Putting Greens, Practice Teeing Grounds, and Teeing Stations at Driving Ranges. At least 5 percent, but no fewer than one, of practice putting greens, practice teeing grounds, and teeing stations at driving ranges shall be designed and constructed so that a golf car can enter and exit the practice putting greens, practice teeing grounds, and teeing stations at driving ranges.

1110.6.11.3 Golf Facilities. At least one accessible route shall connect accessible elements and spaces within the boundary of the golf course. In addition, accessible routes serving golf car rental areas; bag drop areas; course weather shelters; course toilet rooms; and practice putting greens, practice teeing grounds, and teeing stations at driving ranges complying with Section 1110.6.11.2 shall comply with ICC A117.1.

> **Exception:** Golf car passages complying with ICC A117.1 shall be permitted to be used for all or part of accessible routes required by this section.

1110.6.12 Miniature golf facilities. Miniature golf facilities shall comply with 1110.6.12.1 through 1110.6.12.3.

1110.6.12.1 Minimum Number. At least 50 percent of holes on miniature golf courses shall comply with ICC A117.1.

1110.6.12.2 Miniature Golf Course Configuration. Miniature golf courses shall be configured so that the holes complying with ICC A117.1 are consecutive. Miniature golf courses shall provide an accessible route from the last hole complying with ICC A117.1 to the course entrance or exit without requiring travel through any other holes on the course.

> **Exception:** One break in the sequence of consecutive holes shall be permitted provided that the last hole on the miniature golf course is the last hole in the sequence.

1110.6.12.3 Miniature Golf Facilities. Holes required to comply with 1110.6.12.1, including the start of play, shall be on an accessible route.

1110.6.13 Play Areas. Play areas shall comply with ICC A117.1.

1110.6.14 Shooting Facilities with Firing Positions. Where shooting facilities with firing positions are designed and constructed at a site, at least 5 percent, but no fewer than one, of each type of firing position shall comply with ICC A117.1.

1110.6.15 Animal Containment Areas. Animal containment areas that are not for public use are not required to be accessible or to be on an accessible route.

3411.8 (IEBC 310.8) Scoping for alterations. The provisions of Sections 3411.8.1 through ~~3411.8.14~~ 3411.8.16 shall apply to *alterations* to existing buildings and facilities.

3411.8.15 (IEBC 310.8.15) Existing Amusement Rides. Where existing amusement rides are altered, the alteration shall comply with Section 3411.8.15.1 and 3411.8.15.2.

3411.8.15.1 (IEBC 310.8.15.1) Load and Unload Areas. Where load and unload areas serving existing amusement rides are newly designed and constructed, the load and unload areas shall comply with ICC A117.1.

3411.8.15.2 (IEBC 310.8.15.2) Minimum Number. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the

manufacturer or the original design, the amusement ride shall comply with requirements for new construction in Section 1110.6.7.

3411.8.16 (IEBC 310.8) Teeing Grounds. When golf courses are being altered, teeing grounds shall comply with Section 1110.6.11.1.1**.**

> **Exception:** In existing golf courses, the forward teeing ground shall not be required to be one of the teeing grounds on a hole designed and constructed so that a golf car can enter and exit the teeing ground where compliance is not feasible due to terrain.

Reason: ICC A117.1-2009 will include a new Chapter 11 which contains accessibility requirements for recreational facilities including: amusement rides, recreational boating and fishing facilities, exercise machines and equipment, golf and miniature golf facilities, play areas, swimming and wading pools and shooting facilities. The new requirements in ICC A117.1 and in this proposal are drawn directly from the U.S. Access Board's Americans with Disabilities Act (ADA) Accessibility Guidelines for Recreation Facilities originally published in the *Federal Register* on September 3, 2002. These guidelines and the previously issued guidelines for Play Areas (October 2000) were both later incorporated into the Access Board's 2004 ADA and Architectural Barriers Act (ABA) Accessibility Guidelines. Together with new Chapter 11 of the ICC A117.1, the proposal is consistent with the aforementioned Federal guidelines and will afford adults and children with disabilities a reasonable level of access to recreation and play.

Amusement Rides: This proposal addresses access to amusement rides for persons with disabilities, including those who use wheelchairs. Specifications require provision of either a wheelchair space on the ride or a ride seat or device designed for transfer to the ride. Access at loading and unloading areas is also addressed. Specific criteria for wheelchair spaces, ride seats designed for transfer, and transfer devices is included in ICC ANSI A117.1. Certain exceptions are provided in proposed IBC Sections 1110.6.7 for rides that are: set up temporarily, such as at a traveling carnival, designed primarily for children, controlled or operated by the rider, or not equipped with seats.

Boating Facilities: Boating facilities, such as piers and docks provided at marinas to serve recreational vessels, are covered by this proposal which addresses the minimum number of accessible boat slips required to be accessible. This number is based on a table according to the total amount of boat slips provided at a facility. The dynamic interface between land and water presents unique and significant challenges in providing access to floating facilities. Therefore, new Chapter 11 in ICC ANSI A117.1 – 2009 for gangways connecting floating facilities take these constraints into account by modifying requirements for accessible routes and ramps with exceptions to criteria for maximum rise and slope, handrail extensions, and level landings.

Fishing Piers and Platforms: ICC ANSI A117.1 contains new provisions addressing railings and edge protection located on fishing piers and platforms. Railings, guardrails, and handrails are not required by this accessibility standard. However, where they are provided, a portion (at least 25%) cannot be more than 34 inches high so that the railings do not obstruct fishing for people using wheelchairs. An exception permits the use of a guard complying with the International Building Code where required or voluntarily provided. Edge protection at least 2 inches high is also addressed to prevent the wheels of mobility aids from slipping over the edge.

Golf : Access to golf courses is typically achieved through the use of golf cars. An exception to proposed 1110.6.11.3 permits golf car passages in lieu of accessible routes throughout golf courses. To comply, courses must be designed so that golf cars can access teeing grounds and putting greens. Modified accessible routes are required to serve practice putting greens and driving ranges since they often are not located within the boundary of a course. Technical specifications are provided for golf car passages, accessible routes, teeing grounds, putting greens, and weather shelters in ICC ANSI A117.1.

Miniature Golf: At least half of the holes on a miniature golf course must be served by an accessible route. Specifications for accessible routes take into account design conventions for miniature golf courses, such as carpeted surfaces and curbs. All level areas of an accessible hole where a ball may come to rest must be within the reach of golf clubs (36 inches) from accessible routes.

Play Areas: Requirements in ICC A117.1 comprise a subsection of the new chapter on recreation facilities. They cover the number of play components required to be accessible, accessible surfacing in play areas, ramp access and transfer system access to elevated structures, and access to soft contained play structures. The guidelines address play areas typically provided at schools, parks, child care facilities (except those based in the operator's home, which are exempted by ICC ANSI A117.1 Section 1108), and other facilities.

Exercise Equipment and Machines, Bowling Lanes, and Shooting Facilities: Provisions for exercise equipment, bowling lanes, and shooting facilities are addressed in this proposal. The accessibility standards do not affect the design of exercise equipment and machines, but instead require one of each type to be on an accessible route and to provide transfer space for persons using wheelchairs. Access is also required to a portion (at least 5%) of bowling lanes and shooting facilities.

Swimming Pools and Wading Pools: Specifications are provided for various means of providing pool access, including pool lifts, sloped entries, transfer walls, transfer systems, and stairs. Access to swimming pools can be achieved by sloped entries or pool lifts. For larger pools (those with 300 or more linear feet of pool wall), a secondary means of access is proposed. Stairs, transfer systems, or transfer walls can be used instead of lifts or sloped entries for this secondary means of access. This is a reasonable provision in light of the fact that nationally recognized safety standards require two means of exit from such larger swimming pools. Specific provisions are also provided for wading pools, wave action pools and other types of pools where user access is limited to one area.

Cost Impact: This code change will increase the cost of construction. However, because these changes are harmonized with the U.S. Access Board's ADA and ABA Accessibility Guidelines, costs associated with compliance cannot be avoided once the U.S. Department of Justice adopts the guidelines as enforceable standards under the Americans with Disabilities Act. The guidelines have already been adopted as enforceable standards under the Architectural Barriers Act applicable to federally funded facilities.

ICCFILENAME:Mazz-E2-1102.1

Public Hearing Results

PART I - IBC MEANS OF EGRESS

Committee Action: **Disapproved**

Committee Reason: The technical provisions in the 2009 edition of ICC A117.1 need to be published before these scoping provisions are included in the IBC. Some of the items in these provisions are outside the scope of the code official's typical purview and should be located in Appendix E (i.e., golf courses, boating piers, amusement rides).

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because public comments were submitted.

Public Comment 1:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

1102.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

AREA OF SPORT ACTIVITY. That portion of a room or space where the play or practice of a sport occurs.

1104.2 Within a site. At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements and accessible spaces that are on the same site.

Exceptions:

1. An accessible route is not required between accessible buildings, accessible facilities, accessible elements and accessible spaces that have, as the only means of access between them, a vehicular way not providing for pedestrian access.
2. An accessible route to recreational facilities is not required when exempted under Sections 1110.4 or 1110.6

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

Exceptions:

1. In assembly areas with fixed seating, an accessible route shall not be required to serve levels where wheelchair spaces are not provided.
2. In Group I-2 facilities, doors to sleeping units shall be exempted from the requirements for maneuvering clearance at the room side provided the door is a minimum of 44 inches (1118 mm) in width.
3. An accessible route to recreational facilities is not required when exempted under Sections 1110.4 or 1110.6

SECTION 1110
RECREATIONAL FACILITIES

1110.1 ~~1109.14~~ Recreational and sports facilities. Recreational and sports facilities shall be provided with accessible features in accordance with Sections 1110.2 ~~1109.14.1~~ through 1110.6 ~~1109.14.4~~.

1110.2 ~~1109.14.1~~ Facilities serving Type B units in a single building. In Group R-2 and R-3 occupancies where recreational facilities are provided serving a single building containing ~~Type A units or~~ Type B units, 25 percent, but not less than one, of each type of recreational facility shall be accessible. Every recreational facility of each type on a site shall be considered to determine the total number of each type that is required to be accessible.

1110.3 ~~1109.14.2~~ Facilities serving Type B units in multiple buildings. In Group R-2 and R-3 occupancies on a single site where multiple buildings containing ~~Type A units or~~ Type B units are served by recreational facilities, 25 percent, but not less than one, of each type of recreational facility serving each building shall be accessible. The total number of each type of recreational facility that is required to be accessible shall be determined by considering every recreational facility of each type serving each building on the site.

1110.4 Facilities serving Accessible and Type A units. In Group R-2 and R-3 occupancies where recreational facilities are provided serving Accessible or Type A units, every recreational facility of each type serving Accessible or Type A units shall be accessible.

1110.5 ~~1109.14.3~~ Other occupancies. All recreational facilities not falling within the purview of Section 1110.2 through 1110.4 ~~1109.14.1~~ ~~or~~ ~~1109.14.2~~ shall comply with ICC A117.1 and be located on an accessible route ~~be accessible~~. Each area of sports activity shall be served by an accessible route. Accessible routes also shall comply with Section 1110.5.1 through 1110.5.3.

Exception: Areas of sport activity shall not be required to comply with ICC A117.1.

1110.5.1 Protruding objects. Protruding objects shall comply with the requirements of Sections 1003.3.

1110.5.2 Floor surface. Walking surfaces of the accessible route shall comply with ICC ANSI A117.1.

Exception: Within animal containment areas, floor and ground surfaces shall not be required to be stable, firm, and slip resistant.

1110.5.3 Changes in Level. Where changes in level are permitted in floor or ground surfaces, they shall comply with ICC A117.1 for changes in level.

Exception: Animal containment areas shall not be required to comply with ICC A117.1.

1110.6 ~~1109.14.4~~ Recreational and sports facilities exceptions. Recreational and sports facilities required to be accessible shall be exempt from this chapter to the extent specified in this section.

1110.6.1 ~~1108.2.2.4~~ Team or player seating. At least one wheelchair space shall be provided in team or player seating areas serving areas of sport activity.

> **Exception:** Wheelchair spaces shall not be required in team or player seating areas serving bowling lanes that are not required to be located on an accessible route in accordance with Section ~~1109.14.4.1~~ 1110.6.2.

1110.6.2 ~~1109.14.4.1~~ Bowling lanes. An accessible route shall be provided to at least 5 percent, but no less than one, of each type of bowling lane.

1110.6.3 ~~1109.14.4.2~~ Court sports. In court sports, at least one accessible route shall directly connect both sides of the court.

1110.6.4 ~~1109.14.4.3~~ Raised boxing or wrestling rings. Raised boxing or wrestling rings are not required to be accessible or to be on an accessible route.

1110.6.5 ~~1109.14.4.4~~ Raised refereeing, judging and scoring areas. Raised structures used solely for refereeing, judging or scoring a sport are not required to be accessible or to be on an accessible route.

1110.6.6 ~~1109.14.4.5~~ Raised diving boards and diving platforms. Raised diving boards and diving platforms are not required to be accessible or to be on an accessible route.

1110.6.7 Animal Containment Areas. Animal containment areas that are not for public use are not required to be accessible or to be on an accessible route.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. The intent of this public comment is to move existing recreational facilities to a separate section, Section 1110, *Recreational Facilities* instead of being a part of Section 1109, *Other Features and Facilities*. This proposal will relocate current Section 1109.14 to a new Section 1110 and will harmonize exceptions with those found in the U.S. Access Board's *ADA and ABA Accessibility Guidelines*. This public comment is not dependent on the new technical provisions for recreational facilities found in the 2010 edition of ICC A117.1.

Public Comment 2:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

SECTION 1110
RECREATIONAL FACILITIES

1110.6.6 Swimming pools, wading pools and spas. Swimming pools, wading pools, and spas shall comply with ICC A117.1.

1110.6.6.1 ~~1109.14.4.5~~ Raised diving boards and diving platforms. Raised diving boards and diving platforms are not required to be accessible or to be on an accessible route.

1110.6.6.2 Water Slides. Water slides are not be required to be accessible or to be on an accessible route.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This proposal contains scoping provisions for swimming pools that will harmonize the building code with the Access Board's *ADA and ABA Accessibility Guidelines*. The ICC standards commonly reference the IBC Chapter 11 for accessibility requirements. It is important to have provisions for the accessibility for pools in IBC as the ICC develops their new safety standards for pool construction.

Public Comment 3:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

1. Add new definitions as follows:

1102.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

PLAY AREA. A portion of a site containing play components designed and constructed for children.

2. Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.6.13 Play Areas. Play areas shall comply with ICC A117.1.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This proposal contains scoping provisions for play areas that will harmonize the building code with the Access Board's *ADA and ABA Accessibility Guidelines*. In disapproving this proposal, the committee questioned whether playgrounds are subject to the building code. Section 402.12 addresses "structures intended as children's playgrounds" and Section 105.2 exempts "swings and other playground equipment accessory to detached one- and two-family dwellings" from permits. To the extent that children's play facilities are covered by the IBC, they should be accessible to children with disabilities. These scoping requirements are reasonable and are the result of recommendations from a regulatory negotiation committee the Access Board established for this purpose that included ASTM Public Playground, Soft Contained Play, and Playground Surfacing Systems Committees manufacturers of play equipment, landscape architects, government associations, elementary school associations, and organizations representing people with disabilities. Since the Access Board's guidelines were published in late 2000, manufacturers offer play equipment complying with these scoping and technical criteria.

Public Comment 4:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

1. Add new definitions as follows:

1102.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

AMUSEMENT RIDE. A system that moves persons through a fixed course within a defined area for the purpose of amusement.

AMUSEMENT RIDE SEAT. A seat that is built-in or mechanically fastened to an amusement ride intended to be occupied by one or more passengers.

TRANSFER DEVICE. Equipment designed to facilitate the transfer of a person from a wheelchair or other mobility device to and from an amusement ride seat.

2. Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.6 ~~**1109.14.4**~~ **Recreational and sports facilities exceptions.** Recreational and sports facilities required to be accessible shall be exempt from this chapter to the extent specified in this section.

1110.6.7 Amusement Rides. Amusement rides shall comply with Section 1110.6.7.1 through 1110.6.7.3.

Exception: Mobile or portable amusement rides shall not be required to be accessible.

1110.6.7.1 Load and Unload Areas. Load and unload areas serving amusement rides shall comply with ICC A117.1.

1110.6.7.2 Minimum Number. Amusement rides shall provide at least one wheelchair space, or at least one amusement ride seat designed for transfer, or at least one transfer device.

Exceptions:

1. Amusement rides that are controlled or operated by the rider shall not be required to comply with this section.
2. Amusement rides designed primarily for children, where children are assisted on and off the ride by an adult, shall not be required to comply with this section.
3. Amusement rides that do not provide amusement ride seats shall not be required to comply with this section.

1110.6.7.3 Amusement Rides. Accessible amusement rides shall be on an accessible routes in accordance with Section 1110.6.7.3.1 and 1110.6.7.3.2.

1110.6.7.3.1 Load and Unload Areas. Load and unload areas shall be on an accessible route. Where load and unload areas have more than one loading or unloading position, at least one loading and unloading position shall be on an accessible route.

1110.6.7.3.2 Wheelchair Spaces, Ride Seats Designed for Transfer, and Transfer Devices. When amusement rides are in the load and unload position, wheelchair spaces, amusement ride seats designed for transfer and transfer devices shall be on an accessible route.

3411.8 (IEBC 310.8) Scoping for alterations. The provisions of Sections 3411.8.1 through ~~3411.8.14~~ 3411.8.15 shall apply to *alterations* to existing buildings and facilities.

3411.8.15 (IEBC 310.8.15) Existing Amusement Rides. Where existing amusement rides are altered, the alteration shall comply with Section 3411.8.15.1 and 3411.8.15.2.

3411.8.15.1 (IEBC 310.8.15.1) Load and Unload Areas. Where load and unload areas serving existing amusement rides are newly designed and constructed, the load and unload areas shall comply with ICC A117.1.

3411.8.15.2 (IEBC 310.8.15.2) Minimum Number. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in Section 1110.6.7.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This public comment contains scoping provisions for amusement rides that will harmonize the building code with the Access Board's *ADA and ABA Accessibility Guidelines*. To the extent that amusement rides are subject to the code, they should be accessible and usable by individuals with disabilities. These scoping provisions are flexible permitting latitude in terms of the method of access e.g. transfer seat, roll-on seat or transfer device to lift the rider. Mobile and portable rides are exempted in Section 1106.7. Rides without seats, those designed for children who are assisted onto the ride and those rides controlled by the user are also exempt.

Staff Note: E152-09/10, Part 2, Public Comment #1 was submitted with as part of this public comment. Information in E152-09/10, Part 2 is consistent with the provisions for IBC Chapter 34 and IEBC Chapter 3 proposed in this public comments. The proposals were split in order to follow ICC rules for voting on proposals that affect multiple part code changes.

Public Comment 5:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

Add new definitions as follows:

1102.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

BOARDING PIER. A portion of a pier where a boat is temporarily secured for the purpose of embarking or disembarking.

BOAT LAUNCH RAMP. A sloped surface designed for launching and retrieving trailered boats and other water craft to and from a body of water.

BOAT SLIP. That portion of a pier, main pier, finger pier, or float where a boat is moored for the purpose of berthing, embarking, or disembarking.

GANGWAY. A variable-sloped pedestrian walkway that links a fixed structure or land with a floating structure. Gangways which connect to vessels are not included.

2. Revise as follows:

1109.7 Lifts. Platform (wheelchair) lifts are permitted to be a part of a required accessible route in new construction where indicated in Items 1 through ~~10~~ 11. Platform (wheelchair) lifts shall be installed in accordance with ASME A18.1.

1. An accessible route to a performing area and speaker platforms in Group A occupancies.
2. An accessible route to wheelchair spaces required to comply with the wheelchair space dispersion requirements of Sections 1108.2.2 through 1108.2.6.
3. An accessible route to spaces that are not open to the general public with an occupant load of not more than five.
4. An accessible route within a dwelling or sleeping unit.
5. An accessible route to wheelchair seating spaces located in outdoor dining terraces in Group A-5 occupancies where the means of egress from the dining terraces to a public way are open to the outdoors.
6. An accessible route to jury boxes and witness stands; raised courtroom stations including judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations and court reporters' stations; and to depressed areas such as the well of the court.
7. An accessible route to load and unload areas serving amusement rides.
8. An accessible route to play components or soft contained play structures.
9. An accessible route to team or player seating areas serving areas of sport activity.
10. An accessible route where existing exterior site constraints make use of a ramp or elevator infeasible.
11. To substitute for gangways that are required to be accessible routes serving recreational boating facilities and fishing piers and platforms.

SECTION 1110
RECREATIONAL FACILITIES

1110.6 ~~1109.14.4~~ Recreational and sports facilities exceptions. Recreational and sports facilities required to be accessible shall be exempt from this chapter to the extent specified in this section.

1110.6.8 Recreational Boating Facilities. Boat slips required to be accessible by Section 1110.6.8.1 and 1110.6.8.2 and boarding piers at boat launch ramps required to be accessible by Section 1110.6.8.3 shall be on an accessible route.

1110.6.8.1 Boat Slips. Boat slips complying with ICC A117.1 shall be provided in accordance with Table 1110.6.8.1. Where the number of boat slips is not identified, each 40 feet (12 m) of boat slip edge provided along the perimeter of the pier shall be counted as one boat slip for the purpose of this section.

TABLE 1110.6.8.1
BOAT SLIPS

Total Number of Boating Slips Provided in Facility	Minimum Number of Required Accessible Boating Slips
1 to 25	1
26 to 50	2
51 to 100	3
101 to 150	4
151 to 300	5
301 to 400	6
401 to 500	7
501 to 600	8
601 to 700	9
701 to 800	10
801 to 900	11
901 to 1000	12
1001 and over	12, plus 1 for every 100, or fraction thereof, over 1000

1110.6.8.2 Dispersion. Accessible boat slips shall be dispersed throughout the various types of boat slips provided. Where the minimum number of accessible boat slips 1 has been met, no further dispersion shall be required.

1110.6.8.3 Boarding Piers at Boat Launch Ramps. Where boarding piers are provided at boat launch ramps, at least 5 percent, but no fewer than one, of the boarding piers shall comply with ICC A117.1.

1110.6.9 Fishing Piers and Platforms. Fishing piers and platforms shall comply with ICC A117.1 and be on an accessible route.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This public comment contains scoping provisions for boating and fishing piers that will harmonize the building code with the Access Board's *ADA and ABA Accessibility Guidelines*. It is common for boating and fishing piers to be constructed as part of waterfront development that is subject to the building code. Where such development is not subject to a permit, the provisions will not apply. However, it is reasonable for individuals with disabilities to be provided access where code requirements are applicable. If a guard is provided or required, it is not required to be lowered for fishermen with disabilities.

Public Comment 6:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

1. Add new definitions as follows:

1102.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

GOLF CAR PASSAGE. A continuous passage on which a motorized golf car can operate.

TEEING GROUND. In golf, the starting place for the hole to be played.

2. Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.6 ~~1109.14.4~~ Recreational and sports facilities exceptions. Recreational and sports facilities required to be accessible shall be exempt from this chapter to the extent specified in this section.

1110.6.11 Golf Facilities. Golf facilities shall comply with 1110.6.11.1 through 1110.6.11.3.

1110.6.11.1 Golf Courses. Golf courses shall comply with 1110.6.11.1.1 through 1110.6.11.1.3.

1110.6.11.1.1 Teeing Grounds. Where one teeing ground is provided for a hole, the teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where two teeing grounds are provided for a hole, the forward teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where three or more teeing grounds are provided for a hole, at least two teeing grounds, including the forward teeing ground, shall be designed and constructed so that a golf car can enter and exit each teeing ground.

1110.6.11.1.2 Putting Greens. Putting greens shall be designed and constructed so that a golf car can enter and exit the putting green.

1110.6.11.1.3 Weather Shelters. Where provided, weather shelters shall be designed and constructed so that a golf car can enter and exit the weather shelter and shall comply with ICC A117.1.

1110.6.11.2 Practice Putting Greens, Practice Teeing Grounds, and Teeing Stations at Driving Ranges. At least 5 percent, but no fewer than one, of practice putting greens, practice teeing grounds, and teeing stations at driving ranges shall be designed and constructed so that a golf car can enter and exit the practice putting greens, practice teeing grounds, and teeing stations at driving ranges.

1110.6.11.3 Golf Facilities. At least one accessible route shall connect accessible elements and spaces within the boundary of the golf course. In addition, accessible routes serving golf car rental areas; bag drop areas; course weather shelters; course toilet rooms; and practice putting greens, practice teeing grounds, and teeing stations at driving ranges complying with Section 1110.6.11.2 shall comply with ICC A117.1.

> **Exception:** Golf car passages complying with ICC A117.1 shall be permitted to be used for all or part of accessible routes required by this section.

3411.8 (IEBC 310.8) Scoping for alterations. The provisions of Sections 3411.8.1 through ~~3411.8.14~~ 3411.8.16 shall apply to *alterations* to existing buildings and facilities.

3411.8.16 (IEBC 310.8) Teeing Grounds. When golf courses are being altered, teeing grounds shall comply with Section 1110.6.11.1.1.

Exception: In existing golf courses, the forward teeing ground shall not be required to be one of the teeing grounds on a hole designed and constructed so that a golf car can enter and exit the teeing ground where compliance is not feasible due to terrain.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This proposal contains scoping provisions for golf facilities that will harmonize the building code with the Access Board's *ADA and ABA Accessibility Guidelines*. Where a golf course is subject to the building code, this will ensure that people with disabilities are not excluded from the recreational and business opportunities on the course. Please note that a passage sufficiently wide for a golf car substitutes for an accessible route. Today, golfers with disabilities use accessible golf cars, also known as single-rider carts, that are designed to have little impact on the greens and are operated with one-handed controls. Golfers sit in the swivel seats and position to hit the ball from a seated position.

Staff Note: E152-09/10, Part 2, Public Comment #2 was submitted as part of this public comment. Information in E152-09/10, Part 2 is consistent with the provisions for IBC Chapter 34 and IEBC Chapter 3 proposed in this public comments. The proposals were split in order to follow ICC rules for voting on proposals that affect multiple part code changes.

Public Comment 7:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

SECTION 1110
RECREATIONAL FACILITIES

1110.6.12 Miniature golf facilities. Miniature golf facilities shall comply with 1110.6.12.1 through 1110.6.12.3.

1110.6.12.1 Minimum Number. At least 50 percent of holes on miniature golf courses shall comply with ICC A117.1.

1110.6.12.2 Miniature Golf Course Configuration. Miniature golf courses shall be configured so that the holes complying with ICC A117.1 are consecutive. Miniature golf courses shall provide an accessible route from the last hole complying with ICC A117.1 to the course entrance or exit without requiring travel through any other holes on the course.

Exception: One break in the sequence of consecutive holes shall be permitted provided that the last hole on the miniature golf course is the last hole in the sequence.

1110.6.12.3 Miniature Golf Facilities. Holes required to comply with 1110.6.12.1, including the start of play, shall be on an accessible route.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This proposal contains scoping provisions for miniature golf facilities that will harmonize the building code with the Access Board's *ADA and ABA Accessibility Guidelines*. Today, miniature golf facilities are likely to be structures comprised of components and materials that are subject to the IBC. To the extent that such facilities are subject to the IBC, they should be accessible to individuals with disabilities.

Public Comment 8:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

SECTION 1110
RECREATIONAL FACILITIES

1110.6.9 Exercise Machines and Equipment. At least one of each type of exercise machines and equipment shall comply with ICC A117.1 and shall be on an accessible route.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This proposal contains scoping provisions for exercise machines and equipment that will harmonize the building code with the Access Board's *ADA and ABA Accessibility Guidelines*. The technical criteria do not require the equipment and machines to be accessible; they merely require clearances around the machines so that individuals with disabilities can use them.

Public Comment 9:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

SECTION 1110
RECREATIONAL FACILITIES

1110.6.14 Shooting Facilities with Firing Positions. Where shooting facilities with firing positions are designed and constructed at a site, at least 5 percent, but no fewer than one, of each type of firing position shall comply with ICC A117.1.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This proposal contains scoping provisions for shooting facilities with firing positions that will harmonize the building code with the Access Board's *ADA and ABA Accessibility Guidelines*.

Public Comment 10:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

E102.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

AMUSEMENT RIDE. A system that moves persons through a fixed course within a defined area for the purpose of amusement.

AMUSEMENT RIDE SEAT. A seat that is built-in or mechanically fastened to an amusement ride intended to be occupied by one or more passengers.

TRANSFER DEVICE. Equipment designed to facilitate the transfer of a person from a wheelchair or other mobility device to and from an amusement ride seat.

2. Revise as follows:

SECTION E111
RECREATIONAL FACILITIES

E111.1 Recreational and sports facilities exceptions. Recreational and sports facilities required to be accessible shall be exempt from this chapter to the extent specified in this section.

E111.2 Amusement Rides. Amusement rides shall comply with Section E111.2.1 through E111.2.3.

Exception: Mobile or portable amusement rides shall not be required to be accessible.

E111.2.1 Load and Unload Areas. Load and unload areas serving amusement rides shall comply with ICC A117.1.

E111.2.2 Minimum Number. Amusement rides shall provide at least one wheelchair space, or at least one amusement ride seat designed for transfer, or at least one transfer device.

Exceptions:

1. Amusement rides that are controlled or operated by the rider shall not be required to comply with this section.
2. Amusement rides designed primarily for children, where children are assisted on and off the ride by an adult, shall not be required to comply with this section.
3. Amusement rides that do not provide amusement ride seats shall not be required to comply with this section.

E111.2.3 Amusement Rides. Accessible amusement rides shall be on an accessible routes in accordance with Section E111.2.3.1 and E111.2.3.2.

E111.2.3.1 Load and Unload Areas. Load and unload areas shall be on an accessible route. Where load and unload areas have more than one loading or unloading position, at least one loading and unloading position shall be on an accessible route.

E111.2.3.2 Wheelchair Spaces, Ride Seats Designed for Transfer, and Transfer Devices. When amusement rides are in the load and unload position, wheelchair spaces, amusement ride seats designed for transfer and transfer devices shall be on an accessible route.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This portion deals with Amusement Rides. If the committee does not wish to have the text in the body of the code, this public comments places amusement rides in *Appendix E, Supplementary Accessibility Requirements*. The appendix can be adopted by states that wish to match the *2004 ADA/ABA Accessibility Guidelines*.

Staff Note: E152-09/10, Part 2, Public Comment #3 was submitted as part of this public comment. The proposals were split in order to follow ICC rules for voting on proposals that affect multiple part code changes.

Public Comment 11:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

E102.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

BOARDING PIER. A portion of a pier where a boat is temporarily secured for the purpose of embarking or disembarking.

BOAT LAUNCH RAMP. A sloped surface designed for launching and retrieving trailered boats and other water craft to and from a body of water.

BOAT SLIP. That portion of a pier, main pier, finger pier, or float where a boat is moored for the purpose of berthing, embarking, or disembarking.

GANGWAY. A variable-sloped pedestrian walkway that links a fixed structure or land with a floating structure. Gangways which connect to vessels are not included.

2. Add as follows:

E104.2 Lifts. Platform lifts shall be permitted to be used instead of gangways that are part of accessible routes serving recreational boating facilities and fishing piers and platforms. Platform (wheelchair) lifts shall be installed in accordance with ASME A18.1.

SECTION E111
RECREATIONAL FACILITIES

E111.1 Recreational and sports facilities exceptions. Recreational and sports facilities required to be accessible shall be exempt from this chapter to the extent specified in this section.

E111.2 Recreational Boating Facilities. Boat slips required to be accessible by Section E111.2.1 and E111.2.2 and boarding piers at boat launch ramps required to be accessible by Section E111.2.3 shall be on an accessible route.

E111.2.1 Boat Slips. Boat slips complying with ICC A117.1 shall be provided in accordance with Table E111.2.1. Where the number of boat slips is not identified, each 40 feet (12 m) of boat slip edge provided along the perimeter of the pier shall be counted as one boat slip for the purpose of this section.

TABLE E111.2.1
BOAT SLIPS

Total Number of Boating Slips Provided in Facility	Minimum Number of Required Accessible Boating Slips
1 to 25	1
26 to 50	2
51 to 100	3
101 to 150	4
151 to 300	5
301 to 400	6
401 to 500	7
501 to 600	8
601 to 700	9
701 to 800	10
801 to 900	11
901 to 1000	12
1001 and over	12, plus 1 for every 100, or fraction thereof, over 1000

E111.2.2 Dispersion. Accessible boat slips shall be dispersed throughout the various types of boat slips provided. Where the minimum number of accessible boat slips 1 has been met, no further dispersion shall be required.

E111.2.3 Boarding Piers at Boat Launch Ramps. Where boarding piers are provided at boat launch ramps, at least 5 percent, but no fewer than one, of the boarding piers shall comply with ICC A117.1.

E111.2.4 Fishing Piers and Platforms. Fishing piers and platforms shall comply with ICC A117.1 and be on an accessible route.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This portion deals with boat and fishing pier facilities. If the members do not wish to have the text in the body of the code, this public comments places boat and fishing pier facilities in *Appendix E, Supplementary Accessibility Requirements*. The appendix can be adopted by states that wish to match the *2004 ADA/ABA Accessibility Guidelines*.

Public Comment 12:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

1. Add new definitions as follows:

E102.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

GOLF CAR PASSAGE. A continuous passage on which a motorized golf car can operate.

TEEING GROUND. In golf, the starting place for the hole to be played.

2. Revise as follows:

SECTION E111
RECREATIONAL FACILITIES

E111.1 Recreational and sports facilities exceptions. Recreational and sports facilities required to be accessible shall be exempt from this chapter to the extent specified in this section.

E111.2 Golf Facilities. Golf facilities shall comply with E111.2.1 through E111.2.3.

E111.2.1 Golf Courses. Golf courses shall comply with E111.2.1.1 through E111.2.1.3.

E111.2.1.1 Teeing Grounds. Where one teeing ground is provided for a hole, the teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where two teeing grounds are provided for a hole, the forward teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where three or more teeing grounds are provided for a hole, at least two teeing grounds, including the forward teeing ground, shall be designed and constructed so that a golf car can enter and exit each teeing ground.

E111.2.1.2 Putting Greens. Putting greens shall be designed and constructed so that a golf car can enter and exit the putting green.

E111.2.1.3 Weather Shelters. Where provided, weather shelters shall be designed and constructed so that a golf car can enter and exit the weather shelter and shall comply with ICC A117.1.

E111.2.2 Practice Putting Greens, Practice Teeing Grounds, and Teeing Stations at Driving Ranges. At least 5 percent, but no fewer than one, of practice putting greens, practice teeing grounds, and teeing stations at driving ranges shall be designed and constructed so that a golf car can enter and exit the practice putting greens, practice teeing grounds, and teeing stations at driving ranges.

E111.2.3 Golf Facilities. At least one accessible route shall connect accessible elements and spaces within the boundary of the golf course. In addition, accessible routes serving golf car rental areas; bag drop areas; course weather shelters; course toilet rooms; and practice putting greens, practice teeing grounds, and teeing stations at driving ranges complying with Section E111.2.2 shall comply with ICC A117.1.

> **Exception:** Golf car passages complying with ICC A117.1 shall be permitted to be used for all or part of accessible routes required by this section.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This portion deals with constructed portion of golf facilities. If the members do not wish to have the text in the body of the code, this public comments places golf facilities in *Appendix E, Supplementary Accessibility Requirements*. The appendix can be adopted by states that wish to match the *2004 ADA/ABA Accessibility Guidelines*.

Staff Note: E152-09/10, Part 2, Public Comment #4 was submitted as part of this public comment. The proposals were split in order to follow ICC rules for voting on proposals that affect multiple part code changes.

Public Comment 13:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

SECTION E111
RECREATIONAL FACILITIES

E111.1 Recreational and sports facilities exceptions. Recreational and sports facilities required to be accessible shall be exempt from this chapter to the extent specified in this section.

E111.2 Miniature golf facilities. Miniature golf facilities shall comply with E111.2.1 through E111.2.3.

E111.2.1 Minimum Number. At least 50 percent of holes on miniature golf courses shall comply with ICC A117.1.

E111.2.2 Miniature Golf Course Configuration. Miniature golf courses shall be configured so that the holes complying with ICC A117.1 are consecutive. Miniature golf courses shall provide an accessible route from the last hole complying with ICC A117.1 to the course entrance or exit without requiring travel through any other holes on the course.

> **Exception:** One break in the sequence of consecutive holes shall be permitted provided that the last hole on the miniature golf course is the last hole in the sequence.

E111.2.3 Miniature Golf Facilities. Holes required to comply with E111.2.1, including the start of play, shall be on an accessible route.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This portion deals with constructed portion of miniature golf facilities. If the members do not wish to have the text in the body of the code, this public comments places miniature golf facilities in *Appendix E, Supplementary Accessibility Requirements*. The appendix can be adopted by states that wish to match the *2004 ADA/ABA Accessibility Guidelines*.

Public Comment 14:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

SECTION E111
RECREATIONAL FACILITIES

E111.1 Recreational and sports facilities exceptions. Recreational and sports facilities required to be accessible shall be exempt from this chapter to the extent specified in this section.

E111.2 Exercise Machines and Equipment. At least one of each type of exercise machines and equipment shall comply with ICC A117.1 and shall be on an accessible route.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This portion deals with routes to exercise machines and equipment. If the members do not wish to have the text in the body of the code, this public comments places exercise machines and equipment in *Appendix E, Supplementary Accessibility Requirements*. The appendix can be adopted by states that wish to match the *2004 ADA/ABA Accessibility Guidelines*.

Public Comment 15:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved as Modified by this public comment.

Replace the proposal with the following:

SECTION E111
RECREATIONAL FACILITIES

E111.1 Recreational and sports facilities exceptions. Recreational and sports facilities required to be accessible shall be exempt from this chapter to the extent specified in this section.

E111.2 Shooting Facilities with Firing Positions. Where shooting facilities with firing positions are designed and constructed at a site, at least 5 percent, but no fewer than one, of each type of firing position shall comply with ICC A117.1.

Commenter's Reason: This code change has been divided into parts so that the membership can look at each type of recreational facilities on it's own merit. This portion deals with shooting facilities. If the members do not wish to have the text in the body of the code, this public comments places shooting facilities in *Appendix E, Supplementary Accessibility Requirements*. The appendix can be adopted by states that wish to match the *2004 ADA/ABA Accessibility Guidelines*.

Public Comment 16:

Lawrence Brown, representing National Association of Home Builders (NAHB) requests Approval as Modified by this Public Comment.

Replace the proposal as follows:

1110.3 Facilities serving Type B units in multiple buildings. In Group R-2 and R-3 occupancies on a single site where multiple buildings containing primarily Type B units are served by recreational facilities, 25 percent, but not less than one, of each type of recreational facility serving each building shall be accessible. The total number of each type of recreational facility that is required to be accessible shall be determined by considering every recreational facility of each type serving each building on the site.

1110.4 Facilities serving Accessible and Type A units. In Group R-2 and R-3 occupancies where buildings containing primarily ~~recreational facilities are provided serving~~ Accessible or Type A units are served by recreational facilities, every recreational facility of each type serving Accessible or Type A units shall be accessible.

Commenter's Reason: This modification correlates the terminology for the application of recreational facilities for the different types of units required to be accessible. It also levels the playing field for when federally mandated Fair Housing units are provided. The original proposed scoping for recreational facilities far exceeds the requirements already contained in IBC Section 1109.14 and the requirements of the Federal Fair Housing Act (both shown below). The proposed change seems to be intended to nullify the 25 percent rule for Type B units (Fair Housing Units) as these multifamily buildings will also be required to contain Accessible and Type A units in addition to the Type B units. In other words, one could never use the 25 percent rule – it would be nullified by proposed Section 1110.4. In addition, there is no Federal mandate under the Americans with Disabilities Act (ADA) to provide any type of accessible housing to the public. This seems to be an attempt by the federal government to mandate accessibility requirements without going through the federal rule making process. If it is intended that the Access Board will be adding this type of provision to the requirements of the Americans with Disabilities Act, then this type of requirements should not be included in the I-Codes until such time as they are enacted into Federal law.

FAIR HOUSING ACT DESIGN MANUAL – Chapter 1

Accessible Site Facilities on Accessible Routes
Where multiple recreational facilities of the same type are provided at the same location on the site (e.g., tennis courts), not all but a "sufficient" number of the facilities must be accessible to ensure an equitable opportunity for use by people with disabilities. Whenever only one of a type of recreational facility is provided at a particular location on the site, it must be accessible and connected by an accessible route to the covered dwelling units.

2009 IBC
1109.14 Recreational and sports facilities. Recreational and sports facilities shall be provided with *accessible* features in accordance with Sections 1109.14.1 through 1109.14.4.

1109.14.1 Facilities serving a single building. In Group R-2 and R-3 occupancies where recreational facilities are provided serving a single building containing *Type A units* or *Type B units*, 25 percent, but not less than one, of each type of recreational facility shall be *accessible*. Every recreational facility of each type on a site shall be considered to determine the total number of each type that is required to be *accessible*.

1109.14.2 Facilities serving multiple buildings. In Group R-2 and R-3 occupancies on a single *site* where multiple buildings containing *Type A units* or *Type B units* are served by recreational facilities, 25 percent, but not less than one, of each type of recreational facility serving each building shall be *accessible*. The total number of each type of recreational facility that is required to be *accessible* shall be determined by considering every recreational facility of each type serving each building on the site.

Final Action: AS AM AMPC____ D

E152-09/10, Part II
IEBC 605.1, 605.1.15 (New), 605.1.16 (New)

Proposed Change as Submitted

Proponent: Marsha K. Mazz, U.S. Architectural and Transportation Barriers Compliance Board (Access Board)

PART II – IEBC

605.1 General. A building, facility or element that is altered shall comply with the applicable provisions in Sections 605.1.1 through ~~605.1.14~~ 605.2.16, Chapter 11 of the *International Building Code* and ICC A117.1 unless it is *technically infeasible*. Where compliance with this section is *technically infeasible*, the *alteration* shall provide access to the maximum extent that is technically feasible.

A building, facility or element that is constructed or altered to be accessible shall be maintained accessible during occupancy.

Exceptions:

1. The altered element or space is not required to be on an accessible route unless required by Section 605.2.
2. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in existing buildings and facilities.
3. Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in existing buildings and facilities.
4. The *alteration* to Type A individually owned dwelling units within a Group R-2 occupancy shall meet the provisions for Type B dwelling units and shall comply with the applicable provisions in Chapter 11 of the *International Building Code* and ICC A117.1.

605.1.15 Existing Amusement Rides. Where existing amusement rides are altered, the alteration shall comply with Section 605.1.15.1 and 605.1.15.2.

605.1.15.1 Load and Unload Areas. Where load and unload areas serving existing amusement rides are newly designed and constructed, the load and unload areas shall comply with ICC A117.1.

605.1.15.2 Minimum Number. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in Section 1110.6.7.

605.1.16 Teeing Grounds. When golf courses are being altered, teeing grounds shall comply with Section 1110.6.11.1.1.

Exception: In existing golf courses, the forward teeing ground shall not be required to be one of the teeing grounds on a hole designed and constructed so that a golf car can enter and exit the teeing ground where compliance is not feasible due to terrain.

Reason: ICC A117.1-2009 will include a new Chapter 11 which contains accessibility requirements for recreational facilities including: amusement rides, recreational boating and fishing facilities, exercise machines and equipment, golf and miniature golf facilities, play areas, swimming and wading pools and shooting facilities. The new requirements in ICC A117.1 and in this proposal are drawn directly from the U.S. Access Board's Americans with Disabilities Act (ADA) Accessibility Guidelines for Recreation Facilities originally published in the *Federal Register* on September 3, 2002. These guidelines and the previously issued guidelines for Play Areas (October 2000) were both later incorporated into the Access Board's 2004 ADA and Architectural Barriers Act (ABA) Accessibility Guidelines. Together with new Chapter 11 of the ICC A117.1, the proposal is consistent with the aforementioned Federal guidelines and will afford adults and children with disabilities a reasonable level of access to recreation and play.

Amusement Rides: This proposal addresses access to amusement rides for persons with disabilities, including those who use wheelchairs. Specifications require provision of either a wheelchair space on the ride or a ride seat or device designed for transfer to the ride. Access at loading and unloading areas is also addressed. Specific criteria for wheelchair spaces, ride seats designed for transfer, and transfer devices is included in ICC ANSI A117.1. Certain exceptions are provided in proposed IBC Sections 1110.6.7 for rides that are: set up temporarily, such as at a traveling carnival, designed primarily for children, controlled or operated by the rider, or not equipped with seats.

Boating Facilities: Boating facilities, such as piers and docks provided at marinas to serve recreational vessels, are covered by this proposal which addresses the minimum number of accessible boat slips required to be accessible. This number is based on a table according to the total amount of boat slips provided at a facility. The dynamic interface between land and water presents unique and significant challenges in providing access to floating facilities. Therefore, new Chapter 11 in ICC ANSI A117.1 – 2009 for gangways connecting floating facilities take these constraints into account by modifying requirements for accessible routes and ramps with exceptions to criteria for maximum rise and slope, handrail extensions, and level landings.

Fishing Piers and Platforms: ICC ANSI A117.1 contains new provisions addressing railings and edge protection located on fishing piers and platforms. Railings, guardrails, and handrails are not required by this accessibility standard. However, where they are provided, a portion (at least 25%) cannot be more than 34 inches high so that the railings do not obstruct fishing for people using wheelchairs. An exception permits the use of a guard complying with the International Building Code where required or voluntarily provided. Edge protection at least 2 inches high is also addressed to prevent the wheels of mobility aids from slipping over the edge.

Golf : Access to golf courses is typically achieved through the use of golf cars. An exception to proposed 1110.6.11.3 permits golf car passages in lieu of accessible routes throughout golf courses. To comply, courses must be designed so that golf cars can access teeing grounds and putting greens. Modified accessible routes are required to serve practice putting greens and driving ranges since they often are not located within the boundary of a course. Technical specifications are provided for golf car passages, accessible routes, teeing grounds, putting greens, and weather shelters in ICC ANSI A117.1.

Miniature Golf: At least half of the holes on a miniature golf course must be served by an accessible route. Specifications for accessible routes take into account design conventions for miniature golf courses, such as carpeted surfaces and curbs. All level areas of an accessible hole where a ball may come to rest must be within the reach of golf clubs (36 inches) from accessible routes.

Play Areas: Requirements in ICC A117.1 comprise a subsection of the new chapter on recreation facilities. They cover the number of play components required to be accessible, accessible surfacing in play areas, ramp access and transfer system access to elevated structures, and access to soft contained play structures. The guidelines address play areas typically provided at schools, parks, child care facilities (except those based in the operator's home, which are exempted by ICC ANSI A117.1 Section 1108), and other facilities.

Exercise Equipment and Machines, Bowling Lanes, and Shooting Facilities: Provisions for exercise equipment, bowling lanes, and shooting facilities are addressed in this proposal. The accessibility standards do not affect the design of exercise equipment and machines, but instead require one of each type to be on an accessible route and to provide transfer space for persons using wheelchairs. Access is also required to a portion (at least 5%) of bowling lanes and shooting facilities.

Swimming Pools and Wading Pools: Specifications are provided for various means of providing pool access, including pool lifts, sloped entries, transfer walls, transfer systems, and stairs. Access to swimming pools can be achieved by sloped entries or pool lifts. For larger pools (those with 300 or more linear feet of pool wall), a secondary means of access is proposed. Stairs, transfer systems, or transfer walls can be used instead of lifts or sloped entries for this secondary means of access. This is a reasonable provision in light of the fact that nationally recognized safety standards require two means of exit from such larger swimming pools. Specific provisions are also provided for wading pools, wave action pools and other types of pools where user access is limited to one area.

Cost Impact: This code change will increase the cost of construction. However, because these changes are harmonized with the U.S. Access Board's ADA and ABA Accessibility Guidelines, costs associated with compliance cannot be avoided once the U.S. Department of Justice adopts the guidelines as enforceable standards under the Americans with Disabilities Act. The guidelines have already been adopted as enforceable standards under the Architectural Barriers Act applicable to federally funded facilities.

ICCFILENAME:Mazz-E2-1102.1

Public Hearing Results

PART II- IEBC
Committee Action: **Disapproved**

Committee Reason: Part II was disapproved based on the committee's actions to Part I of E152-09/10.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because public comments were submitted.

Public Comment 1:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved

Replace the proposal with the following:

605.1.15 Existing Amusement Rides. Where existing amusement rides are altered, the alteration shall comply with Section 605.1.15.1 and 605.1.15.2.

605.1.15.1 Load and Unload Areas. Where load and unload areas serving existing amusement rides are newly designed and constructed, the load and unload areas shall comply with ICC A117.1.

605.1.15.2 Minimum Number. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in the *International Building Code,* Section 1110.6.7.

Commenter's Reason: See E152-09/10, Part I, Public comment #4. The intent of this public comment is to match the provisions for existing building proposed for IBC Chapter 34 and IEBC Chapter 3. This way the provisions for existing buildings will be consistent between Chapter 3 and 6 of the IEBC.

Staff Note: E152-09/10, Part 1, Public Comment #4 was submitted including these provisions. The proposals were split in order to follow ICC rules for voting on proposals that affect multiple part code changes.

Public Comment 2:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved

Replace the proposal with the following:

PART II – IEBC

605.1.16 Teeing Grounds. When golf courses are being altered, teeing grounds shall comply with the *International Building Code*, Section 1110.6.11.1.1**.**

> **Exception:** In existing golf courses, the forward teeing ground shall not be required to be one of the teeing grounds on a hole designed and constructed so that a golf car can enter and exit the teeing ground where compliance is not feasible due to terrain.

Commenter's Reason: See E152-09/10, Part I, Public comment #6. The intent of this public comment is to match the provisions for existing building proposed for IBC Chapter 34 and IEBC Chapter 3. This way the provisions for existing buildings will be consistent between Chapter 3 and 6 of the IEBC.

Staff Note: E152-09/10, Part 1, Public Comment #6 was submitted including these provisions. The proposals were split in order to follow ICC rules for voting on proposals that affect multiple part code changes.

Public Comment 3:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved

Replace the proposal with the following:

SECTION B104
RECREATIONAL FACILITIES

B104.1 Recreational and sports facilities exceptions. Existing recreational and sports facilities required to be accessible shall be exempt from accessibility to the extent specified in this section.

B104.2 Existing Amusement Rides. Where existing amusement rides are altered, the alteration shall comply with Section B104.2.1 and B104.2.2.

B104.2.1 Load and Unload Areas. Where load and unload areas serving existing amusement rides are newly designed and constructed, the load and unload areas shall comply with ICC A117.1.

B104.2.2 Minimum Number. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in the *International Building Code*, Appendix E111.2.2.

Commenter's Reason: See E152-09/10, Part I, Public comment #10. IBC Appendix E contains supplementary accessibility requirements and IEBC Appendix B contains supplemenetary accessibility requirements for existing buildings. If the membership votes to place amusement ride requirements in Appendix E, this public comment is needed for consistency.

Staff Note: E152-09/10, Part 1, Public Comment #10 was submitted including these provisions. The proposals were split in order to follow ICC rules for voting on proposals that affect multiple part code changes.

Public Comment 4:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approved

Replace the proposal with the following:

SECTION B104
RECREATIONAL FACILITIES

B104.1 Recreational and sports facilities exceptions. Existing recreational and sports facilities required to be accessible shall be exempt from accessibility to the extent specified in this section.

B104.2 Teeing Grounds. When golf courses are being altered, teeing grounds shall comply with the *International Building Code*, Appendix E111.2.1.1.

Exception: In existing golf courses, the forward teeing ground shall not be required to be one of the teeing grounds on a hole designed and constructed so that a golf car can enter and exit the teeing ground where compliance is not feasible due to terrain.

Commenter's Reason: See E152-09/10, Part I, Public comment #12. IBC Appendix E contains supplementary accessibility requirements and IEBC Appendix B contains supplemenetary accessibility requirements for existing buildings. If the membership votes to place golf course requirements in Appendix E, this public comment is needed for consistency.

Staff Note: E152-09/10, Part 1, Public Comment #12 was submitted including these provisions. The proposals were split in order to follow ICC rules for voting on proposals that affect multiple part code changes.

Final Action: AS AM AMPC____ D

E156-09/10, Part I

1102.1, 1107.2, 1107.6, 1107.6.2.2, 1107.6.3, 3411.1 (IEBC 310.1)

Proposed Change as Submitted

Proponent: Mark J. Mazz, AIA, representing self

PART I – IBC MEANS OF EGRESS

1. Add new definitions as follows:

1102.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

PUBLIC RIGHT OF WAY. Public land or property, usually in interconnected corridors, that is acquired for or devoted to transportation purposes.

TYPE C (Visitable) UNIT. A dwelling unit designed and constructed for accessibility in accordance with this code and the provisions for Type C units in ICC A117.1.

2. Revise as follows:

1107.2 Design. Dwelling units and sleeping units that are required to be Accessible units, Type A units, ~~and~~ Type B units, and Type C units shall comply with the applicable portions of Chapter 10 of ICC A117.1. Units required to be

Type A units are permitted to be designed and constructed as Accessible units. Units required to be Type B units are permitted to be designed and constructed as Accessible units or as Type A units. Units required to be Type C (Visitable) units are permitted to be designed and constructed as Accessible units, as Type A units, or as Type B units.

1107.6 Group R. Accessible units, Type A units, ~~and~~ Type B Units, and Type C (Visitable) units shall be provided in Group R occupancies in accordance with Sections 1107.6.1 through 1107.6.4.

1107.6.2.2 Group R-2 other than apartment houses, monasteries and convents. In Group R-2 occupancies, other than apartment houses, monasteries and convents, Accessible units, ~~and~~ Type B units, and Type C units shall be provided in accordance with Sections 1107.6.2.2.1 through ~~1107.6.2.2.2~~ 1107.6.2.2.3.

1107.6.2.2.3 Type C units. Where there are 6 or more dwelling units in a development site, at least 50 percent shall be a Type C unit. All R-2 units on a development site shall be considered to determine the total number of units and the required number of Type C units.

Exceptions: The following units are not required to be Type C units or be considered to determine the total number of units:

1. Units above other units.
2. Units without garages where the slope between the finish ground level at all unit entrances to all points along the property lines that border a public right of way are no greater than 8.33 percent.

1107.6.3 Group R-3. Type B units and Type C units shall be provided in Group R-3 occupancies in accordance with Sections 1107.6.3.1 and 1107.6.3.2.

1107.6.3.1 Type B units. In Group R-3 occupancies where there are four or more dwelling units intended to be occupied as a residence in a single structure, every dwelling unit intended to be occupied as a residence shall be a Type B unit.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.6.3.2 Type C units. In Group R-3 occupancies, where there are 6 or more dwelling units in a development site, at least 50 percent shall be a Type C unit. All R-3 units on a development site shall be considered to determine the total number of units and the required number of Type C units.

Exceptions: The following units are not required to be Type C units or be considered to determine the total number of units

1. Units above other units.
2. Units without garages where the slope between the finish ground level at all unit entrances to all points along the property lines that border a public right of way are no greater than 8.33 percent.

1107.7.5 Design flood elevation. The required number of Type A units, Type B units, and Type C units shall not apply to a site in accordance with 1107.7.5.1 through 1107.7.5.2.

1107.7.5.1 Type A units and Type B units. The required number of Type A units and Type B units shall not apply to a site where the required elevation of the lowest floor or the lowest horizontal structural building members of nonelevator buildings are at or above the design flood elevation resulting in:

1. A difference in elevation between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15 240 mm) exceeding 30 inches (762 mm), and
2. A slope exceeding 10 percent between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15.24 m).

Where no such arrival points are within 50 feet (15.24 m) of the primary entrances, the closest arrival points shall be used.

1107.7.5.2 Type C units. The required number of Type C dwelling units shall not apply to a site where the required elevation of the lowest floor or the lowest horizontal structural building members are at or above the design flood elevation resulting in:

1. A difference in elevation between the minimum required floor elevation at all unit entrances and the ground elevation at the entrance exceeds 30 inches (762 mm), or
2. A slope exceeding 8.33 percent between the minimum required floor elevation at all unit entrances to all points along the property lines that border a public right of way.

3411.1 (IEBC 310.1) Scope. The provisions of Sections 3411.1 through 3411.9 apply to maintenance, change of occupancy, additions and alterations to existing buildings, including those identified as historic buildings.

Exceptions:

1. Type B dwelling or sleeping units required by Section 1107 of this code are not required to be provided in existing buildings and facilities being altered or undergoing a change of occupancy.
2. Type C dwelling required by Section 1107 of this code are not required to be provided in additions or in existing buildings and facilities being altered or undergoing a change of occupancy.

(Renumber subsequent sections)

Reason: Type C dwelling units have been added to the technical requirements in 2009 ICC/A117.1. The intent of this proposal is to scope Type C dwelling units for buildings that fall below the threshold of the Fair Housing Act Accessibility Guidelines.

1. There is a correlative change being proposed for the IBC, IRC and IEBC.
2. Type C (Visitable) units require significantly less accessibility than Type B units do. Type C units require one zero-step entrance on a circulation path (not necessarily an accessible route) from a garage, driveway, sidewalk, or street. The entrance does not have to be the front door. Therefore, an attached garage, with a floor that slopes away from a connecting door that has no step can satisfy the zero-step entrance requirement. Interior requirements for Type C units apply only to the entry level and are equally as lax as the exterior requirements.
3. Jurisdictions across the Country are adding Visitability requirements to their local codes. Neither the technical provisions nor the scoping provisions are consistent. To address the technical provisions, ICC A117.1 created Type C (Visitable) units. This proposed change to the Building Code is to make the scoping provisions consistent.
4. Because of site constraints, individual dwelling units, in-fill units, and small developments may have difficulty with providing a zero-step entrance. Therefore, this proposal limits applicability to developments with 6 or more dwelling units.
5. Other site issues, such as trees, preserving natural terrain, and local design guidelines, when coupled with zero-step entrances may increase construction costs by more than a few hundred dollars. In lieu of listing a series of exceptions, this proposal applies to only half the R-2 and R-3 dwelling units.
6. The technical requirements for Type C units are a subset of the Accessible, Type A, and Type B unit technical requirements. Therefore, requiring those units to comply with Type C units is redundant.
7. Stacked townhomes are becoming popular. The proposal only addresses the units nearest the ground. Upper unit is exempted from compliance. Lower units are exempted when the entrance level is significantly below ground.
8. Providing a zero-step entrance is more expensive on a small lot where the unit does not have a garage, particularly on sites with steeper slopes. Therefore, this proposal exempts units where the difference in grade elevation at all the entrances and the elevation along property lines that are along the public right of way slopes more than 8.33%.
9. Modifying existing structures will cost, on average, more than a few hundred dollars. Therefore, existing structures and additions are exempted.

Cost Impact: $100 to $400 per dwelling unit. See “Increasing Home Access: Designing for Visitability” by the AARP Public Policy Institute. http://assets.aarp.org/rgcenter/il/2008_14_access.pdf

ICCFILENAME:Mazz Mark-E1-1102.1

Public Hearing Results

PART I IBC MEANS OF EGRESS

Committee Action: **Disapproved**

Committee Reason: This proposal is too far reaching for just visitability. It is easy to retrofit existing one and two step entries. There is a big concern about water infiltration and a stepped entry is needed to address that.

Justification was not provided for the 50% requirement for number of units. It is unclear how this will effect construction of individual units – perhaps requiring every unit to meet Type C unit requirements. If there are Type A and Type B units on the site, there should be an allowance for consideration of those units counting towards the percentage required to meet Type C units, similar to what is currently in Section 1107.2.

There needs to be exceptions for units that are a level above grade, in flood plains, on steep sites, etc. There are areas of the country where putting in a basement might hit rock and blasting down to get the zero level entry would be too costly – these types of issues should be considered when determining percentages.
Adding another type of unit is confusing. Perhaps these minimal accessibility requirements should be incorporated into the International Residential Code.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Mark J. Mazz, representing self, requests Approval as Modified by this Public Comment.

Replace the proposal as follows:

1008.1.1 Size of doors. The minimum width of each door opening shall be sufficient for the *occupant load* thereof and shall provide a clear width of 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. *Means of egress* doors in a Group I-2 occupancy used for the movement of beds shall provide a clear width not less than 411/2 inches (1054 mm). The height of door openings shall not be less than 80 inches (2032 mm).

Exceptions:

1. The minimum and maximum width shall not apply to door openings that are not part of the required *means of egress* in Group R-2 and R-3 occupancies.
2. Door openings to resident sleeping units in Group I-3 occupancies shall have a clear width of not less than 28 inches (711 mm).
3. Door openings to storage closets less than 10 square feet (0.93m2) in area shall not be limited by the minimum width.
4. Width of door leaves in revolving doors that comply with Section 1008.1.4.1 shall not be limited.
5. Door openings within a dwelling unit or sleeping unit shall not be less than 78 inches (1981 mm) in height.
6. Exterior door openings in dwelling units and sleeping units, other than the required *exit* door, shall not be less than 76 inches (1930 mm) in height.
7. In other than Group R-1 occupancies, the minimum widths shall not apply to interior egress doors within a dwelling unit or sleeping unit that is not required to ~~be an *Accessible unit*, *Type A unit* or *Type B unit*~~ comply with Section 1107.
8. Door openings required to be accessible within Type B units shall have a minimum clear width of 31.75 inches (806 mm).

1107.6.2 Group R-2. *Accessible units*, *Type A units* and *Type B units* shall be provided in Group R-2 occupancies in accordance with Sections 1107.6.2.1 and 1107.6.2.2. All other dwelling units and sleeping units shall comply with Section 1107.6.2.3.

1107.6.2.2 Group R-2 other than apartment houses, monasteries and convents. In Group R-2 occupancies, other than apartment houses, monasteries and convents, *Accessible units* and *Type B units* shall be provided in accordance with Sections 1107.6.2.2.1 and 1107.6.2.2.~~2~~3.

1107.6.2.2.1 Accessible units. *Accessible dwelling units* and *sleeping unit*s shall be provided in accordance with Table 1107.6.1.1.

1107.6.2.2.2 Type B units. Where there are four or more *dwelling units* or *sleeping units intended to be occupied as a residence* in a single structure, every *dwelling unit* and every *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.

Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.6.2.2.3 Other Dwelling units and Sleeping Units. Dwelling units and sleeping units that are not Accessible units or Type B units shall comply with Sections 1107.6.2.3.1 through 1107.6.2.3.2.

Exceptions:

1. Dwelling units with no habitable space on the entry level to the structure that is nearest finish grade are not required to comply with this section.
2. Units without garages are not required to comply with this section when the slope between the finish ground level at all entrances to the nearest point along a property line that borders a public right of way is greater than 10 percent.
3. The number of *dwelling units* is permitted to be reduced in accordance with Section 1107.7.

1107.6.2.2.3.1 Landings. At least one entrance door to each dwelling unit shall have a landing exterior to the unit that is not more than 11/2 inches (38 mm below the top of the threshold.

1107.6.2.2.3.2 Circulation path. A circulation path from the entrance door complying with Section 1107.6.2.2.3.1 to a garage, parking space, or public right of way shall not have any abrupt vertical changes in level greater than ½ inch (13 mm).

1107.6.3 Group R-3. ~~In~~ Group R-3 occupancies, where there are four or more *dwelling units* or *sleeping units intended to be occupied as a residence* in a single structure ~~every *dwelling unit* and *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.~~, shall comply with Section 1107.6.3.1. Where there are three or fewer dwelling units or sleeping units in a single structure, the dwelling units shall comply with Section 1107.6.3.2.

~~**1107.6.3 Group R-3.**~~ **1107.6.3.1. Type B Units.** Every *dwelling unit* and *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.

Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.6.3.2 Other dwelling units and sleeping units. Dwelling units that are not Type B units shall comply with Sections 1107.6.3.2.1 and 1107.6.3.2.2.

Exceptions:

1. Dwelling units with no habitable space on the entry level to the structure that is nearest finish grade are not required to comply with this section.
2. Units without garages are not required to comply with this section when the slope between the finish ground level at all entrances to the nearest point along a property line that borders a public right of way is greater than 10 percent.
3. The number of *dwelling units* is permitted to be reduced in accordance with Section 1107.7.

1107.6.3.2.1 Landings. At least one entrance door to each dwelling unit shall have a landing exterior to the unit that is not more than 11/2 inches (38 mm) below the top of the threshold.

1107.6.3.2.2 Circulation path. A circulation path from the entrance door complying with Section 1107.6.3.2.1 to a garage, parking space, or public right of way shall not have any abrupt vertical changes in greater than ½ inch (13 mm).

1107.7 General exceptions. Where specifically permitted by Section 1107.5 or 1107.6, the required number of *Type A units* and *Type B units* is permitted to be reduced in accordance with Sections 1107.7.1 through 1107.7.5. Where specifically permitted by Section Section 1107.6.2.2.3 and 1107.6.3.2 the required number of *dwelling units* is permitted to be reduced in accordance with Sections 1107.7.6.

1107.7.5 Design flood elevation for Type A and B units. The required number of *Type A units* and *Type B units* shall not apply to a site where the required elevation of the lowest floor or the lowest horizontal structural building members of nonelevator buildings are at or above the *design flood elevation* resulting in:

1. A difference in elevation between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15 240 mm) exceeding 30 inches (762 mm), and
2. A slope exceeding 10 percent between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15.24 m).

Where no such arrival points are within 50 feet (15.24 m) of the primary entrances, the closest arrival points shall be used.

1107.7.6 Design flood elevation for other dwelling units and sleeping units. The required number of *dwelling units* specified in Section 1107.6.2.2.3 and 1107.6.3.2 shall not apply to a *site* where the required elevation of the lowest floor or the lowest horizontal structural building members are at or above the *design flood elevation* resulting in:

1. A difference in elevation between the minimum required floor elevation at all unit entrances and the ground elevation at the entrance exceeds 30 inches (762 mm), or
2. A slope exceeding 10 percent between the minimum required floor elevation at all unit entrances to the nearest points along a property lines that borders a public right of way.

Revise as follows:

3411.1 (IEBC 310.1) Scope. The provisions of Sections 3411.1 through 3411.9 apply to maintenance, change of occupancy, additions and alterations to existing buildings, including those identified as historic buildings.

Exceptions:

1. Type B dwelling or sleeping units required by Section 1107 of this code are not required to be provided in existing buildings and facilities being altered or undergoing a change of occupancy.
2. Dwelling units required by Sections 1107.6.2.2.3 and 1107.6.3.2 of this code are not required to be provided in additions or in existing buildings and facilities being altered or undergoing a change of occupancy.

Commenter's Reason: The modifications to this proposal address the Committee's concerns.

1. There is a correlative change being proposed for the IBC, IRC and IEBC.
2. Significant modifications were made to this proposal. Therefore, the underlines and strikeouts are to the IBC 2009 text, not the original Proposal text.
3. The proposed modifications delete references to ICC A117.1 Type C units. Some persons thought that Type C units required significantly more accessibility than it does. Another person expressed concern that by referencing Type C, additional accessible features would quickly creep into the Model Codes. Another concern was that some of the Type C technical requirements may be hard to achieve in many situations. Therefore, to make clear the intent of this Visitability proposal, all references to the Type C unit are deleted.
4. The Committee said that applying the requirements to only 50% of the dwelling units in a development site was more appropriately a zoning issue, not a building code issue. The proposed modifications remove those provisions and substitute more broadly written exceptions.
5. Units above or below the entry level and units with split foyers are exempted. Townhouses above garages without habitable space on the entry level are exempted. The slope exemptions are based on finish grade, not undisturbed grade. Therefore, the designer and the builder have some ability to exempt difficult sites.
6. Even though research shows that Visitability adds only $100 to $400 to the cost of a home, several persons expressed concerns about the cost. The proposed modifications strip out all the requirements except zero-step entrance and wider doors on the entry level. The proposed modifications remove the requirement for the entry level to have at least one habitable space and any powder requirements. Outside the dwelling unit, the proposed modifications removed the technical requirements for the circulation path except that no steps are permitted. Ramps are not required.

7. One person speaking in opposition worried that the Visitability provisions would apply to dwelling units above other units and to units below grade. That was never the intent. The exceptions are written more broadly to exclude any unit that does not have habitable space on the entry level to the structure.
8. There was some concern about water intrusion. This should never be an issue when the zero-step entrance is in the garage or under an overhang. Proper detailing can minimize the risk of water intrusion where the entrance door has no overhead protection. I have designed such entrances before.
9. "Of the homes built since 2000, 25% to 60% will have at least one resident with a severe, long-term mobility impairment at some point during the useful life of the structure." ("Aging and Disability: Implications for the Housing Industry and Housing Policy in the United States," Journal of the American Planning Association, Summer 2008) Therefore, the ICC should incorporate minimal accessibility into all new housing.
10. At least 11 jurisdictions have created visitability ordinances across the Country. Some require the electrical panels to be within reach. Others require 42" wide corridors. All these jurisdictions implement an arduous waiver process for exemptions. Many other jurisdictions are looking toward visitability legislation. US Representative Schakowsky from Chicago has proposed legislation in Congress to make it illegal to build new homes without Visitability features. We need to get in front of this trend so that unique waiver processes are eliminated and visitability remains a code issue and not a law or civil right.

Cost Impact: None

Final Action: AS AM AMPC____ D

E156-09/10, Part II
IEBC 605.1

Proposed Change as Submitted

Proponent: Mark J. Mazz, AIA, representing self

PART II - IEBC

Revise as follows:

605.1 General. A building, facility or element that is altered shall comply with the applicable provisions in Sections 605.1.1 through 605.1.14, Chapter 11 of the International Building Code and ICC A117.1 unless it is technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent that is technically feasible.

A building, facility or element that is constructed or altered to be accessible shall be maintained accessible during occupancy.

Exceptions:

1. The altered element or space is not required to be on an accessible route unless required by Section 605.2.
2. Accessible means of egress required by Chapter 10 of the International Building Code are not required to be provided in existing buildings and facilities.
3. Type B dwelling or sleeping units required by Section 1107 of the International Building Code are not required to be provided in existing buildings and facilities.
4. The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall meet the provisions for Type B dwelling units and shall comply with the applicable provisions in Chapter 11 of the International Building Code and ICC A117.1.
5. Type C dwelling required by Section 1107 of the International Building Code are not required to be provided in additions or in existing buildings and facilities being altered or undergoing a change of occupancy.

Reason: Type C dwelling units have been added to the technical requirements in 2009 ICC/A117.1. The intent of this proposal is to scope Type C dwelling units for buildings that fall below the threshold of the Fair Housing Act Accessibility Guidelines.

1. There is a correlative change being proposed for the IBC, IRC and IEBC.
2. Type C (Visitable) units require significantly less accessibility than Type B units do. Type C units require one zero-step entrance on a circulation path (not necessarily an accessible route) from a garage, driveway, sidewalk, or street. The entrance does not have to be the front door. Therefore, an attached garage, with a floor that slopes away from a connecting door that has no step can satisfy the zero-step entrance requirement. Interior requirements for Type C units apply only to the entry level and are equally as lax as the exterior requirements.
3. Jurisdictions across the Country are adding Visitability requirements to their local codes. Neither the technical provisions nor the scoping provisions are consistent. To address the technical provisions, ICC A117.1 created Type C (Visitable) units. This proposed change to the Building Code is to make the scoping provisions consistent.
4. Because of site constraints, individual dwelling units, in-fill units, and small developments may have difficulty with providing a zero-step entrance. Therefore, this proposal limits applicability to developments with 6 or more dwelling units.
5. Other site issues, such as trees, preserving natural terrain, and local design guidelines, when coupled with zero-step entrances may increase construction costs by more than a few hundred dollars. In lieu of listing a series of exceptions, this proposal applies to only half the R-2 and R-3 dwelling units.
6. The technical requirements for Type C units are a subset of the Accessible, Type A, and Type B unit technical requirements. Therefore, requiring those units to comply with Type C units is redundant.
7. Stacked townhomes are becoming popular. The proposal only addresses the units nearest the ground. Upper unit is exempted from compliance. Lower units are exempted when the entrance level is significantly below ground.
8. Providing a zero-step entrance is more expensive on a small lot where the unit does not have a garage, particularly on sites with steeper slopes. Therefore, this proposal exempts units where the difference in grade elevation at all the entrances and the elevation along property lines that are along the public right of way slopes more than 8.33%.
9. Modifying existing structures will cost, on average, more than a few hundred dollars. Therefore, existing structures and additions are exempted.

Cost Impact: $100 to $400 per dwelling unit. See “Increasing Home Access: Designing for Visitability” by the AARP Public Policy Institute. http://assets.aarp.org/rgcenter/il/2008_14_access.pdf

ICCFILENAME:Mazz Mark-E1-1102.1

Public Hearing Results

PART II- IEBC
Committee Action: **Disapproved**

Committee Reason: The proposal was disapproved for consistency with the committee action on E156-09/10 Part I.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Mark J. Mazz, representing self, requests Approval as Modified by this Public Comment.

Replace the proposal as follows:

PART II - IEBC

CHAPTER 6
ALTERATION – LEVEL I

605.1 General. A building, facility or element that is altered shall comply with the applicable provisions in Sections 605.1.1 through 605.1.14, Chapter 11 of the International Building Code and ICC A117.1 unless it is technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent that is technically feasible.

A building, facility or element that is constructed or altered to be accessible shall be maintained accessible during occupancy.

Exceptions:

1. The altered element or space is not required to be on an accessible route unless required by Section 605.2.
2. Accessible means of egress required by Chapter 10 of the International Building Code are not required to be provided in existing buildings and facilities.
3. Type B dwelling or sleeping units required by Section 1107 of the International Building Code are not required to be provided in existing buildings and facilities.
4. The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall meet the provisions for Type B dwelling units and shall comply with the applicable provisions in Chapter 11 of the International Building Code and ICC A117.1.

5. Dwelling units required by Sections 1107.6.2.2.3 and 1107.6.3.2 of the International Building Code are not required to be provided in additions or in existing buildings and facilities being altered or undergoing a change of occupancy.

Commenter's Reason: See E156-09/10, Part I. This is the same language as proposed for IBC Chapter 34 and IEBC Chapter 3 proposed in the public comment to Part I.

Final Action: AS AM AMPC____ D

E156-09/10, Part III
IRC R202, R320.2 (New)

Proposed Change as Submitted

Proponent: Mark J. Mazz, AIA, representing self

PART III – IRC BUILDING/ENERGY

Add new text as follows:

SECTION R202
DEFINITIONS

PUBLIC RIGHT OF WAY. Public land or property, usually in interconnected corridors, that is acquired for or devoted to transportation purposes.

TYPE C (Visitable) UNIT. A dwelling unit designed and constructed for accessibility in accordance with this code and the provisions for Type C units in ICC A117.1.

R320.2 Visitable (Type C) units. Where there are 6 or more dwelling in a development site, at least 50 percent shall be a Type C unit. All units on a development site shall be considered to determine the total number of units and the required number of Type C units.

Exceptions:

1. Type C units shall be permitted to be designed and constructed as Accessible units, Type A units, or Type B units in accordance with Chapter 11 of the International Building Code.
2. The following units are not required to meet Type C unit requirements or be considered to determine the total number of units:
   - 2.1 Units above other units.
   - 2.2 Units without garages where the slope between the finish ground level at all unit entrances to all points along the property lines that border a public right of way are no greater than 8.33 percent.
3. Type C dwelling are not required to be provided in additions or in existing buildings and facilities being altered or undergoing a change of occupancy.
4. The required number of Type C units shall not apply to a site where the required elevation of the lowest floor or the lowest horizontal structural building members are at or above the design flood elevation resulting in:
   - 4.1 A difference in elevation between the minimum required floor elevation at all unit entrances and the ground elevation at the entrance exceeds 30 inches (762 mm), or
   - 4.2 A slope exceeding 8.33 percent between the minimum required floor elevation at all unit entrances to all points along the property lines that border a public right of way.

Reason: Type C dwelling units have been added to the technical requirements in 2009 ICC/A117.1. The intent of this proposal is to scope Type C dwelling units for buildings that fall below the threshold of the Fair Housing Act Accessibility Guidelines.

1. There is a correlative change being proposed for the IBC, IRC and IEBC.
2. Type C (Visitable) units require significantly less accessibility than Type B units do. Type C units require one zero-step entrance on a circulation path (not necessarily an accessible route) from a garage, driveway, sidewalk, or street. The entrance does not have to be the front door. Therefore, an attached garage, with a floor that slopes away from a connecting door that has no step can satisfy the zero-step entrance requirement. Interior requirements for Type C units apply only to the entry level and are equally as lax as the exterior requirements.

3. Jurisdictions across the Country are adding Visitability requirements to their local codes. Neither the technical provisions nor the scoping provisions are consistent. To address the technical provisions, ICC A117.1 created Type C (Visitable) units. This proposed change to the Building Code is to make the scoping provisions consistent.
4. Because of site constraints, individual dwelling units, in-fill units, and small developments may have difficulty with providing a zero-step entrance. Therefore, this proposal limits applicability to developments with 6 or more dwelling units.
5. Other site issues, such as trees, preserving natural terrain, and local design guidelines, when coupled with zero-step entrances may increase construction costs by more than a few hundred dollars. In lieu of listing a series of exceptions, this proposal applies to only half the R-2 and R-3 dwelling units.
6. The technical requirements for Type C units are a subset of the Accessible, Type A, and Type B unit technical requirements. Therefore, requiring those units to comply with Type C units is redundant.
7. Stacked townhomes are becoming popular. The proposal only addresses the units nearest the ground. Upper unit is exempted from compliance. Lower units are exempted when the entrance level is significantly below ground.
8. Providing a zero-step entrance is more expensive on a small lot where the unit does not have a garage, particularly on sites with steeper slopes. Therefore, this proposal exempts units where the difference in grade elevation at all the entrances and the elevation along property lines that are along the public right of way slopes more than 8.33%.
9. Modifying existing structures will cost, on average, more than a few hundred dollars. Therefore, existing structures and additions are exempted.

Cost Impact: $100 to $400 per dwelling unit. See “Increasing Home Access: Designing for Visitability” by the AARP Public Policy Institute. http://assets.aarp.org/rgcenter/il/2008_14_access.pdf

ICCFILENAME:Mazz Mark-E1-1102.1

Public Hearing Results

PART III- IRC B/E
Committee Action: **Disapproved**

Committee Reason: The committee supports the need for visitability but is concerned about the zoning, particularly the number of units in a development. The committee suggests that it would be better if the technical requirements were placed into the code in the appropriate sections then all homes would comply and there would not be a need for Type C. There are difficulties with the definitions and they contain technical requirements.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Mark J. Mazz, representing self, requests Approval as Modified by this Public Comment.

Replace the proposal as follows:

PART III – IRC

R320.1 ~~Scope.~~ Four or more dwelling or sleeping units. Where there are four or more *dwelling* units or sleeping units in a single structure, the provisions of Chapter 11 of the *International Building Code* for Group R-3 shall apply.

R320.2 Three or fewer dwelling units. Where there are three or fewer dwelling units in a single structure, the dwelling units shall comply with 320.2.1 through 320.2.3.

Exceptions:

1. Dwelling units with no habitable space on the entry level are not required to comply with section.
2. Units without garages are not required to comply when the slope between the finish ground level at all entrances to the nearest point along a property line that borders a public right of way is greater than 10 percent.
3. Additions, existing buildings and facilities being altered, and buildings and facilities undergoing a change of occupancy are not required to comply with this section.
4. Section R320.2 shall not apply to a *site* where the required elevation of the lowest floor or the lowest horizontal structural building members are at or above the *design flood elevation* resulting in:
   - 4.1. A difference in elevation between the minimum required floor elevation at all unit entrances and the ground elevation at the entrance exceeds 30 inches (762 mm), or
   - 4.2. A slope exceeding 10 percent between the minimum required floor elevation at all unit entrances to the nearest point along a property line~~s~~ that border a public right of way.

R320.2.1 Landings. At least one entrance door to each dwelling unit shall provide a minimum clear width or 32 inches (813 mm) and have a landing exterior to the unit that is not more than 11/2 inches (38 mm) lower than the top of the threshold.

R320.2.2 Circulation path. A circulation path from the entrance door complying with Section R320.2.1 to a garage, parking space, or public right of way shall be free of any abrupt vertical changes in level that are more than ½ inch (13 mm).

R320.3 Door width. On the entry level, interior doors on the circulation path shall provide a minimum clear width of 31 3/4" inches when measured between the face of the door and the stop.

R311.2 Egress door. At least one egress door shall be provided for each *dwelling* unit. The egress door shall be side-hinged, and shall provide a minimum clear width of 32 inches (813 mm) when measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). The minimum clear height of the door opening shall not be less than 78 inches (1981 mm) in height measured from the top of the threshold to the bottom of the stop. Other doors shall not be required to comply with these minimum dimensions unless required by Section 320.2. Egress doors shall be readily openable from inside the *dwelling* without the use of a key or special knowledge or effort.

Commenter's Reason: See E156-09/10, Part I. The revision to Section 311.2 is so there is not a conflict for door width in the IRC.

Final Action: AS AM AMPC____ D

E179-09/10
1108.5 (New), Chapter 35

Proposed Change as Submitted

Proponent: Marsha K. Mazz, U.S. Architectural and Transportation Barriers Compliance Board (Access Board)

1. Add new text as follows:

1108.5 Classroom acoustics. Classrooms in Group E occupancies shall meet the acoustical performance criteria in ANSI/ASA S12.60, Part 1.

Exception: Relocatable classrooms shall be permitted to comply with ANSI/ASA S12.60, Part 2.

2. Add new standard to Chapter 35 as follows:

American National Standards Institute (ANSI)
ANSI/ASA S12.60-2010/Part 1 Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Permanent, Site-Built Schools
ANSI/ASA S12.60-2009/Part 2 Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Relocatable Classroom Factors.

Reason: This code change proposes to reference two new standards: ANSI/ASA S12.60-2010/Part 1 Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools and ANSI/ASA S12.60-200X/Part 2 Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Relocatable Classroom Factors.

Acoustical performance is an important consideration in the design of classrooms. The proposed standard sets specific criteria for maximum background noise (35 decibels) and reverberation time (0.6 to 0.7 seconds) for unoccupied classrooms. Research indicates that levels of background noise and reverberation little noticed by adults, who are mature and skillful listeners, adversely affect learning environments for young children, whose neurological development is incomplete until late adolescence.[1] Amplification cannot remedy poor classroom acoustics because they amplify both wanted and unwanted sound. This code change will remove educational barrier for children who have hearing loss and those who use cochlear implants. In addition, children who have temporary hearing loss, who may comprise up to 15% of the school age population according to the Centers for Disease Control (CDC), will also benefit, as will children who have speech impairments or learning disabilities and those whose home language is different. Without improvements to the listening environment, children of all backgrounds, ages, and abilities are at risk of educational delay and failure.

Background: In 1998, the U.S. Access Board joined with the **Acoustical Society of America** (ASA) to support the development of a classroom acoustics standard. This resulted in the publication of the first ANSI/ASA S12.60-2002 (R 2009) Acoustical Performance Criteria, Design Requirements and Guidelines for Schools which was reaffirmed in 2009. The standard is now being reformatted to make it more easily interpreted and enforced. Additionally, it will include a new Part 2 to better address relocatable classrooms with support from the Modular Building Institute. We understand that the new editions will be published in 2009 (Part 2) and 2010 (Part 1) in time for consideration at the Final Action Hearings.

Supporting Data: In a large study of students in London and Munich schools, classroom noise levels were related to standardized achievement scores showing that higher noise levels resulted in poorer standardized test scores.[2, 3] Similar scores were reported by Armstrong International.

Bibliography

1. Ponton, C., Eggermont, J., Kwong, B. & Don, M. (2000) Maturation of human central auditory system activity: Evidence from multi-channel evoked potentials, Clinical Neurophysiology 111, 220 – 236.

2. Shield. B and Dockrell J (2008) The effects of environmental and classroom noise on the academic attainments of primary school children, J. Acoust. Soc. Am. Volume 123, 133-144
3. Hygge, S, Evans, G W. & Bullinger, M (2002) A Prospective Study of Some Effects of Aircraft Noise on Cognitive Performance in Schoolchildren. Psychological Science 13 (5), 469-474.

Cost Impact: This code change will increase the cost of construction. Evidence obtained from the State of Connecticut where the ANSI/ASA S12.60-2002 is applicable under state law is that cost increases have been nominal even for modular construction. Data from the UK where a similar standard has been applicable over the past five years indicates an average increase of 1.5% in new school construction. We anticipate that any costs attributable to this code change would be offset by the increased availability of Federal funds through the American Recovery and Reinvestment Act. A funding bill has passed in the U.S. House of Representatives which will support school sustainability improvements, specifically including improvements to acoustical environments.

Analysis: A review of the standards proposed for inclusion in the code, ANSI/ASA S12.60-2010/Part 1 and ANSI/ASA S12.60/Part 2, for compliance with ICC criteria for referenced standards given in Section 3.6 of Council Policy #CP 28 will be posted on the ICC website on or before September 24, 2009.

ICCFILENAME:Mazz-E4-1108.5

Public Hearing Results

Note: The following analysis was not in the Code Change monograph but was published on the ICC website at http://www.iccsafe.org/cs/codes/Documents/2009-10cycle/ProposedChanges/Standards-Analysis.pdf :

Analysis: Review of the proposed new standard indicated that, in the opinion of ICC staff, the standard did not comply with ICC standards criteria, Section 3.6.2.1, 3.6.2.4, 3.6.3.1.

Committee Action: **Disapproved**

Committee Reason: The proposed reference standard had not yet completed its revision to put requirements into mandatory language. The current standard is not in mandatory language.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because public comments were submitted.

Public Comment 1:

Marsha K. Mazz, representing U.S. Architectural and Transportation Barriers Compliance Board (Access Board) requests Approval as Modified by this Public Comment.

1108.5 Classroom acoustics. ~~Classrooms in~~ Group E occupancies shall meet the acoustical performance criteria in ANSI/ASA S12.60, Part 1.

Exception: Relocatable classrooms shall be permitted to comply with ANSI/ASA S12.60, Part 2.

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The committee disapproved this proposal because the proposed reference standard had not yet completed its revision to put the requirements in mandatory language. We anticipate that the new standards will be available by the Final Action Hearings in Dallas. The modification deletes the reference to "classrooms" in Group E occupancies because the proposed standards address which educational spaces in Group E occupancies must comply. For example, the standard exempts certain educational spaces that cannot comply because of their unique nature e.g. shops and swimming pools.

Public Comment 2:

Mr. William Ryan, representing M. Space Holdings LLC, requests Disapproval.

Commenter's Reason: I wish to support the committee action for disapproval and add the following information. Our company is a supplier of commercial modular buildings in Connecticut. We have supplied classroom buildings in compliance with ASA 12.60-2002. I object to the cost impact language in the proponent's reason which states "Evidence obtained from the State of Connecticut where the ANSI/ASA S12.60-2002 is applicable under state law is that cost increases have been nominal even for modular construction." Our experience is that costs increase by over 30% on the three classroom building which we provided.

Final Action: AS AM AMPC____ D

E187-09/10
1109.6, 1109.6.1 (New), 1109.6.2 (New)

Proposed Change as Submitted

Proponent: Don Davies, Salt Lake City Corporation, representing the Utah Chapter of ICC

1. Revise text as follows:

1109.6 Elevators. Passenger elevators on an accessible route shall be accessible and comply with Section ~~3001.3~~ 3001.

2. Add new text as follows:

1109.6.1 Limited use limited application elevators. Limited use limited application elevators are permitted to be a part of a required accessible route. The maximum rise of the car platform shall not exceed 25 feet (7.6 m).

1109.6.2 Private Residence elevators. Private residence elevators are permitted to be part of a required accessible route within or serving an individual dwelling unit or sleeping unit. The maximum rise of the car platform shall not exceed 50 feet (15 m).

Reason: The code currently scopes the provisions for passenger elevators (Section 1109.6). A reference to Section 3001 will pick up a reference to safety standard, ASME A17.1, as well as the accessibility standard, ICC A117.1. It is unclear to those unfamiliar with ASME A17.1 that LULAs and private residence elevators are 'passenger elevators' with limited applications. The 25 feet of vertical rise for LULAs is found in ASME A17.1 Section 5.2.1.16.5. The 50 feet of vertical rise for private residence elevators is found in ASME A17.1 Section 5.3.1.10.3. Since the code is very explicit on the limitations of lifts in new construction it seems reasonable that some guidance be placed in the body of the code scoping the provisions and stating the limitations of these types of elevators.

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

ICCFILENAME:Davies-E1-1109.7

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: Limited Use/Limited Access (LULA) elevators and Private Residence Elevators are considered passenger elevators by ASME A17.1, so this text is not needed. ASME A17.1 should contain the limitations for use of these elevators. Repeating ASME A17.1 requirements in the IBC could lead to possible conflicts in the future.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Don Davies, Salt Lake City Corporation, representing the Utah Chapter of ICC, requests Approval as Submitted.

Commenter's Reason: It is very clear in the code what limitations are placed on lifts, but the code is totally silent on the limitations of LULA's and Private Residence elevators. Even though LULU's and Private Residence elevators are addressed in a current standard, scoping the limitations of their use makes the code a user friendly document. At a glance, code users can quickly see the limitations of these types of elevators without referencing some document they may not even have in their libraries. Very few code users have access to all the standards when all they want to know what the limitations of the use of an item are. One concern at the hearings was the possibility of the standard being changed, thus conflicting with the code. This is not likely to happen, since this limitation has been unchanged for several years, and is unlikely to change in the future, just because the code addresses the issue.

Final Action: AS AM AMPC____ D

E194-09/10, Part I
1002.1 (IFC [B] 1002.1)

NOTE: PART II DID NOT RECEIVE A PUBLIC COMMENT AND IS ON THE CONSENT AGENDA. PART II IS REPRODUCED FOR INFORMATIONAL PURPOSES ONLY FOLLOWING ALL OF PART I.

Proposed Change as Submitted

Proponent: Jeff Lowinski, representing the Window and Door Manufacturers Association (WDMA)

PART I – IBC MEANS OF EGRESS

Add new definition as follows:

1002.1 (IFC [B] 1002.1) Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

LANDING. A floor area or a designated portion of a floor area, at the top or bottom of a flight of stairs, or at the top or bottom of a ramp, or at the door of an elevator.

Reason:
(PART I) This proposal adds a definition to the IBC for "landing" which is beneficial when attempting to interpret and apply the IBC. "landing" is used in numerous locations of the IBC but is not defined.

WDMA is of the perspective than "landing" relates to the flight of stairs (or ramp) that may be near a door; and that doors, other than elevator doors, do not have "landings" necessarily associated to them. A flight of stairs, or ramp, may have a landing, and that landing may be on one side of a door. Hence there are requirements in the code for landings at doors. The proposed definition clarifies that landings are associated with stairs, ramps, or elevators.

WDMA members, as they assist their customers, have found that some jurisdictions have interpreted the exception in 1008.1.7 significantly different than the language intends.

ICCFILENAME:Woestman-E2-1008.1.7

Public Hearing Results

PART I- IBC MEANS OF EGRESS
Committee Action: **Disapproved**

Committee Reason: The definition does not address landings at doors where a single step is provided. There is a conflict with the definition of 'flight' which only deals with several risers. The definition is not clear for intermediate landings on stairways and ramps. There are other areas in the code that use this term, such as balconies, where this definition could be considered a conflict.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Jeff Inks, representing the Window and Door Manufacturers Association (WDMA) requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

1002.1 (IFC [B] 1002.1) Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

LANDING. A floor area or a designated portion of a floor area, at the top or bottom of a stair, stairway, flight of stairs, or ~~at the top or bottom of a~~ ramp; intermediate floor areas within the run of a stairway, flight of stairs, or ramp; or, at the door of an elevator.

Commenter's Reason: As noted in the reason statement for the original proposal, this proposal adds a definition to the IBC for "landing" which is beneficial when attempting to interpret and apply provisions in the IBC related to them. "Landing" is used in numerous locations in the codes but is not defined.

The intent of the definition is to clarify that "landing" relates to floor areas serving stairs, stairways, flight of stairs, and ramps, and that doors, other than elevator doors, do not have a "landing" unless required by the code in association with these elements. The proposed definition clarifies that.

The issue being addressed is the interpretation by some jurisdictions that have interpreted extensive level areas on the exterior of exterior doors such as a patio, as landings that doors are not permitted to swing over. The proposed definition addresses that concern and will clarify that doors are permitted to swing over such areas.

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

Final Action: AS AM AMPC____ D

NOTE: PART II REPRODUCED FOR INFORMATIONAL PURPOSES ONLY- SEE ABOVE.

E194-09/10, Part II
IRC R202

Proponent: Jeff Lowinski, representing the Window and Door Manufacturers Association (WDMA)

PART II – IRC BUILDING/ENERGY

Add new definition as follows:

SECTION R202
DEFINITIONS

LANDING. A floor area or a designated portion of a floor area, at the top or bottom of a flight of stairs, or at the top or bottom of a ramp.

Reason:
(PART II) This proposal adds a definition to the IRC for "Landing" which is beneficial when attempting to interpret and apply the IRC. "Landing" is used in numerous locations in the IRC but currently is not defined.
WDMA is of the perspective than "landing" relates to the flight of stairs (or ramp) that may be near a door; and that doors do not have "landings" necessarily associated to them. A flight of stairs, or ramp, may have a landing, and that landing may be on one side of a door. Hence there are requirements in the code for landings at doors. The proposed definition clarifies that landings are associated with stairs or ramps.

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

Assembly Action: **None**

PART II- IRC B/E
Committee Action: **Disapproved**

Committee Reason: The proposed definition does not address the landings at the exterior door. This should be reworked and brought to Final Action.

Assembly Action: **None**