

## PPRBD 2009 IBC REVIEW NOTES

**MARCH 23, 2010**

### CHAPTER 1 – SCOPE AND APPLICATION

- **101.2.** It was noted that during the review of the 2009 IRC and earlier reviews of the 2006 I Codes the direction of the committees was to move Townhomes back into the IRC. This change will require a modification to RBC302.2 as well as RBC303.2. **ACTION REQUIRED.**
- **RBC302.3.** The suggestion was made to reword RBC302.3 to match the adoption language of the IRC. Currently the adoption portion of the IRC lists the code sections that are going to be adopted whereas the IBC adoption section lists the code sections to be deleted. This will improve consistency but will result in a long list. **ACTION REQUIRED.**

### CHAPTER 2 – DEFINITIONS

202

- <sup>2006</sup>**ACTIVE FAULT / ACTIVE FAULT TRACE.** Removed in the 2006 IBC. No change in 2009 IBC.
- <sup>2006</sup>**ADJUSTED SHEAR RESISTANCE.** Removed in the 2006 IBC and refers to seismic loading and design. Little to no impact locally. No change in 2009 IBC.
- <sup>2006/2009</sup>**AGGREGATE.** 2006 IBC removed this definition, 2009 added it back in but changed the code section reference.
- <sup>2006</sup>**AGGREGATE, LIGHTWEIGHT.** Concrete term that is likely defined in an ACI Standard.
- **AMBULATORY HEALTH CARE FACILITY.** This is a new definition to the 2009 IBC and begins to address the specific uses that occur within a typical medical office. The key to a AHCF is that the patients are “rendered incapable of self preservation”. Chapter 4 of the IBC contains additional criteria for these occupancies. See also the definition of Clinic, Outpatient in Chapter 3. This change will have a local impact.
- <sup>2006</sup>**APPROVED.** Added to the 2006 IBC, no change in 2009.
- **AREA.** 2009 IBC added “for masonry”.
- <sup>2006</sup>**ATTACHMENT.** Deleted in 2006 IBC.
- <sup>2006</sup>**AUTOCLAVED AERATED CONCRETE (AAC).** Definition and referenced added in 2006 IBC. No Change in 2009 IBC.
- **AUTOMATIC SMOKE DETECTION SYSTEM.** 2009 IBC adds a reference to Chapter 9 for this term.
- **AWNING.** Minor revision, no local impact.
- **BALCONY, EXTERIOR.** 2009 IBC removed this definition. Watch for errata, this term is still listed in the index of the 09 IRC and refers to Section 202. Group did not feel that it was necessary to add this back into the code as an amendment.
- <sup>2006</sup>**BALED COTTON.** Added definition in 2006 IBC. No change in 2009.
- **BALLAST.** 2009 IBC added reference to Chapter 15.
- <sup>2006</sup>**BASE.** Removed in the 2006 IRC.
- **BASEMENT.** RBC amendment here, the initial consensus of the group was the delete the RBC amendment for this section but a final decision was not reached as the group was unclear as to how this term had been addressed in the review of the 2009 IRC. Upon review of the 2009 IRC proposed amendments BASEMENT has been defined by the RBC as well as CRAWLSPACE. This needs to be re-reviewed with the group and initial

suggestion is to rework IRC definitions for BASEMENT and CRAWLSPACE and put them in the IBC amendments. If this action is taken care must be used to ensure that the new definition addresses the flood load criteria. Group was in agreement to add this to the IBC. **ACTION REQUIRED.**

- **BEDROOM / SLEEPING ROOM.** The IBC does not define this term and this definition was added to the list of amendments for the 2009 IRC. If the term is defined in the IRC should it also be defined in the IBC? Review with group. Group noted that "Sleeping Unit" is defined in the IBC but agreed that it would be helpful to also include the definitions for sleeping room in the IBC, thus IRC and IBC are consistent. **ACTION REQUIRED.**
- **BEARING WALL STRUCTURE.** New term to the 2009 IBC, adds reference to Chapter 16.
- <sup>2006</sup>**BOUNDTY ELEMENT / MEMBER.** These two definitions were removed in the 2006 IBC.
- **BOND REINFORCING.** Removed in the 2009 IBC.
- <sup>2006</sup>**BRITTLE.** Removed in 2006 IBC, unclear as why this term is in IBC.
- <sup>2006</sup>**BUILDING, ENCLOSED.** This term was removed from the 2006 IBC and no change in the 2009. This term relates to wind loading on a building and should be defined in referenced standards such as ASCE7-05.
- **BUILDING ELEMENT.** New term in 2009 with reference to 702.1
- **BUTTRESS.** Removed from 2009 IBC.
- **CANOPY.** Revised for clarity in 2009 IBC.
- <sup>2006</sup>**CANTILEVERED COLUMN SYSTEM.** Removed form 2006 IBC.
- **CELL.** New to 09 IBC and defined in Chapter 4. Term used to reflect inmate housing.
- **CELL (masonry).** Defined in Chapter21.
- **CELL TIER.** New to 09 IBC and defined in Chapter 4. Term used in relation to stacking of Cells.
- <sup>2006</sup>**CEMENTIOUS MATERIAL.** Removed in 06 IBC. No chance in 2009.
- **CHILD CARE FACILITIES.** New to 2009 IBC and adds reference to section 308.3.1. Hopefully this term adds clarity to this specific use.
- **CLINIC, OUTPATIENT.** New term to the 2009 IBC and defined in Chapter 3. Related to AMBULATORY HEALTH CARE FACILITY with the main difference being patients at a outpatient clinic ARE capable of self preservation.
- **COLUMN, MASONRY.** Removed from 2009 IBC, assume definition was not needed.
- **COMMON USE.** Removed in 09 IBC.
- <sup>2006</sup>**CONGREGATE LIVING FACILITIES.** Added reference to section 310.2 in 2006 IBC, no change in 2009 IBC.
- <sup>2006</sup>**CONTRACTION JOINT.** Removed in the 2006 IBC, not a necessary definition.
- **CONVENTIONAL LIGHT FRAME CONSTRUCTION.** This term is defined as reference in section2302.1.
- **COVERED MALL BUILDING.** The definition has simply been expanded to reference types of Malls, no impact.
- **CRAWLSPACE.** This term is not defined in the IBC. Locally we have a code amendment that defines a crawlspace and sets the maximum height of a crawlspace. In review of the IRC the group felt it necessary to keep the maximum height in the crawlspace in order to avoid an 8' tall crawlspace with a stairway and no egress window (there is nothing in the code to prevent this). This item needs to be reviewed as part of the 2009 IBC review. Upon further discussion it was agreed that the definition of Crawlspace should be added to the IBC. **ACTION REQUIRED.**
- **DANGEROUS.** New to the 09 IBC and references the existing building section of the IBC which is not targeted for adoption, no impact.
- **DECK.** Removed this definition. Group did not feel it necessary to define as an amendment. The term deck is used in the IBC and IRC but it appears to be clear without need for a definition.

- **2006 DECORATIVE MATERIALS.** This definition was added to the 2006 IBC and was not changed in 09. It deals with fuel loading in a building and comes from the IFC.
- **DEEP FOUNDATION.** Added reference to section 1802.1.
- **DETOXIFICATION FACILITY.** This term is now defined in section 308.3.1. The added clarity will make the code easier to use.
- **DIAPHRAGM.** Added reference for structural design criteria to chapter 16.
- **DRILLED SHAFT.** Defined in section 1802.1.
- **2006 DWELLING UNIT.** The definition was moved from chapter 3 of the IBC to chapter 2 without modification. No change in 2009.
- **2006 EFFECTIVE HEIGHT.** Removed in 2006 IBC, unclear as to why.
- **ELEVATOR GROUP.** Added in 2009 IBC with reference to 902.1.
- **EXTERIOR INSULATION AND FINISH SYSTEM (EIFS) – With and without drainage.** These materials / processes are now defined and regulated by the IBC. This will provide clarity and improve the usability of the code.
- **FIXED BASE OPERATOR (FBO).** This term is new to the 2009 IBC and defined in section 412.2 and relates to specific aircraft related use of a structure.
- **FLEXURAL LENGTH.** Removed in 2009 IBC, Structural term.
- **FLIGHT.** Now defined in section 1002.1 and relates to a continuous run of stairs from lading to landing.
- **FRAME STRUCTURE.** Added reference to section 1614.2.
- **GARAGE.** Not a defined term in the IBC. In review of the IRC the group agreed that it would be a good idea to add a definition in the RBC to address this. This should be revisited in the IBC review. Suggest reference to a *“finished or unfinished space, attached or detached with a vehicular access door”*. The group agreed that the definition should be added to the IBC. **ACTION REQUIRED.**
- **HEADER (bonder).** Removed the definition in 2009 IBC, Masonry related term.
- **HEIGHT, STORY.** Removed in 2009 IBC, this change should be reviewed upon review of chapter 5.
- **HELICAL PILE.** Added definition and defined in section 1802.1
- **HIGH RISE BUILDING.** The definition has not changed but has been moved to section 202 of the IBC.
- **HOSPITALS AND MENTAL HOSPITALS.** Referenced and defined in section 308.3.1.
- **INERT GAS.** Defined in section 307.2 and relates to a gas with limited life safety risks.
- **INTERIOR FLOOR WALL BASE.** Added, defines the decorative material used at the intersection of the floor and the wall.
- **INTUMESCENT FIRE-RESISTANT COATINGS.** Defined in 1702, New to IBC. No impact.
- **LABEL.** Added in 2009 IBC and address labeling of products.
- **LABELED.** Revised definition. Clarification. See *IRC Significant Changes* book for more info.
- **LIGHT-FRAME CONSTRUCTION.** Minor revision, changed “light gauge” to “cold formed”.
- **LISTED.** Revised and moved from chapter 9 of the 2006 IBC. Need to review to see that LABEL, LABELED, and LISTED match the definitions in the IRC.
- **MANUFACTURER’S DESIGNATION.** Added to the 2009 IBC, see Listing, Label, etc.
- **MARK.** Added to the 2009 IBC. ID on product by Mfg. See above.
- **MASTIC FIRE-RESISTANT COATINGS.** Defined in 1702, New to IBC. No impact.
- **MEAN DAILY TEMPERATURE.** Removed from 2009 IBC, unclear at this time as to why.
- **MENTAL HOSPITALS.** Adds reference to 308.3.1. Added clarity.
- **NOTIFICATION ZONE.** Defined in 902.1. Fire related.
- **NURSING HOMES.** Adds reference to 308.3.1. Added clarity.
- **PHOTOLUMINESCENT.** Added, referenced to definition in 1002.1

- **PIER / PILE FOUNDATIONS.** The reference to these types of foundations has been removed from chapter 2.
- **PLASTIC HINGE.** This definition removed in 09 IBC, unclear why.
- **PRESERVATIVE-TREATED WOOD.** Removed from the 2009 IBC. The definition was moved under TREATED WOOD as a sub definition. No Change.
- **PRIMARY STRUCTURAL FRAME.** Added to the 09 IBC and will help to identify code provisions that apply to specific building elements. Should provide a more consistent application of requirements.
- **REFLECTIVE PLASTIC CORE FOIL INSULATION.** This definition added to address new materials used in the industry.
- **REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.** Added definition that appears to allow the Building Official to request an individual to coordinate a project. May be helpful as some large projects require coordination that doesn't always happen.
- **REINFORCED PLASTIC, GLASS FIBER.** Removed from 09 IBC. Unclear as to reason.
- **REQUIRED STRENGTH.** Removed from 09 IBC, probably used only in referenced standards, such as ACI 318.
- **SALLYPORT.** Added to chapter 2 and references 408.1.1. This is not a new term to the IBC, only relocated.
- **SECONDARY MEMBERS.** Added to the 09. Similar to PRIMARY STRUCTURAL FRAME.
- **SELF-LUMINOUS.** Added to the 09 but not a new term to the IBC, referenced to chapter 10 likely for exit signage.
- **SHALLOW FOUNDATIONS.** Added to chapter 2 but not new to IBC. ASCE 32 and IRC have shallow foundation criteria, IBC may now as well.
- **SITE-FABRICATED STRETCH SYSTEM.** New, referenced to 802.1. Interior finish detail.
- **SPECIAL STRUCTURAL WALL.** Added to 09 IBC, review under 1908.1.1.
- **STORM SHELTER.** Both IBC and IRC now contain criteria for Storm Shelters. The Storm Shelter provisions of the IRC have not been proposed for adoption, reference only.
- **STORY.** Minor revision, added reference to basement.
- **SUBSTANTIAL STRUCTURAL DAMAGE.** New to 09 IBC and referenced to chapter 34 which at this time is not anticipated for adoption.
- **TENT.** Minor insignificant revisions to 09 IBC.
- **TRANSIENT AIRCRAFT.** New to the 09 IBC and refers to a aircraft that is based at another location.
- **VAPOR RETARDER CLASS.** The technical criteria for a vapor retarder has been moved from the body of the code to the definition, no technical change from the 06 IBC.
- **ZONE NOTIFICATION.** Referenced to 902.1, deals with a fire alarm system.

## MARCH 25<sup>TH</sup> 2010

### CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION

**303.1.** The group discussed the current amendment to 303.1.1. of the 2003 IBC that classifies an occupancy with less than 50 occupants and NOT serving alcohol as a B occupancy. When the 2006 IBC was reviewed the suggestion was to remove this amendment and follow the direction of the IBC that does not address the presence of alcohol in an occupancy with less than 50

persons. See exception 2 to 2009 IBC 303.1. The proposal was made to delete RBC303.4.2. **ACTION REQUIRED.**

**308.3.** It was noted by the group that "Child Care Facilities" has been added to the laundry list of I-2 occupancies. Child Care Facilities have also been defined in 308.3.1 and the key element here is that the care must occur on a 24 hr basis. It was further noted that 308.5.2 is titled "Child Care

Facility" and addresses care on less than a 24 hour basis. This conflict in terminology should be addressed by ICC but, the intent of the code is:

If the occupancy is for 24 hour care for more than 5 kids it's an I-2. Same occupancy, less than 24 hours it's a I-4 occupancy, unless the exception to 308.5.2 applies.

The exception to 308.5.2 has been revised but results in little change from the 03 IBC. No changes suggested.

**309.1.** Minor revisions, no impact.

**310.1.** Boarding houses are listed under the laundry list of R-1 occupancies but the number of occupants is limited to 10. Locally Bed and breakfasts are popular in single family homes. It was noted that a bed and breakfast would be considered a "congregate living facility" and therefore allow up to 10 occupants. Under this provision the bed and breakfast would be considered a R3 occupancy and subject to sprinkler requirements of 903.2.8 (NFPA 13R). This could prove problematic for smaller B&B so the proposal was made to keep the current amendment for boarding houses with the limit at 5 guests provided the owner/operator occupies the residence as well. **ACTION REQUIRED.**

It was further noted that the amendment adding Townhomes to the list of R-2 occupancies is no longer necessary as the current proposal is to leave Townhomes in the IRC as intended by ICC. The proposal was made to remove the amendment for moving Townhomes to the IBC. **ACTION REQUIRED.**

**312.2.** It was noted that the laundry list for S1 occupancies now includes "Aircraft (storage and repair)". Aircraft manufacturing is considered a F-1 occupancy. Under previous codes Aircraft storage is considered a S-2 occupancy and repair is considered S-1. No amendment proposed.

**402.** The definition for Covered Mall Building has been added to reflect changes in how malls are being constructed. Result is added clarity in how to apply the code.

**402.4.1.1.** An exception has been added to this section that addresses a tenant space with an independent means of egress.

Group consensus was it was a logical change.

**402.6.1.** Criteria have been added for reduced open space at malls. This is a new section that adds flexibility but does not compromise life safety as the requirements are set high.

**402.10.** This section is new but the requirement is not new, atriums require smoke control. The only change is adding a reference to an atrium within a mall. No impact.

**402.11.** This section addresses kiosks in malls. Historically the RBC has deleted this section as the kiosks are movable and extremely difficult to regulate. Kiosks within a mall are moved and or replaced rottenly and regulation of these elements would introduce permitting and plan review requirements that would be very difficult to regulate with minimal benefit. The group did not feel that kiosks in a mall are a building code related element. The consensus of the group was to maintain RBC302.4.4 and delete section 402.11. This section was 402.10 in the 2003 IBC. **ACTION REQUIRED.**

**402.12.** This section was new in the 2006 IBC and contains minor revision in the 2009 IBC. The proposal of the 2006 review committee was to delete this section of code but RBD staff opposed the decision due to liability. Since that time RBD staff has become more familiar with playground equipment and regulations. RBD does not believe that this section of code will present a problem as most playground equipment already meets the requirements set forth. This section also only applies to larger playground structures within a mall. The proposal was made to keep this section and the group felt the impact would be minimal.

**403.2.1.** This section has been revised but does not appear to contain any technical changes.

**403.2.3.** This section contains new criteria for high rise building 420 feet or taller and a category III or IV structure. The group was not concerned with the changes as they did not feel it was likely a building of this nature will be constructed locally in the near future.

**403.3.** Minor technical changes, reworded for clarity.

**403.5.5.** It was noted that this section requires components of a high rise stair enclosure to be marked with photoluminescent materials per section 1024 of the IBC. The group was concerned about maintenance of these elements but did not feel comfortable removing the requirement from the code.

**403.6.1.** It was noted that this section is new and requires a fire service access elevator in buildings that exceed 120 feet from grade to highest occupied floor. No modifications were proposed.

**403.6.2.** It was also noted that a occupant evacuation elevator is required in high rise construction. This section references Section 3008. Even though a occupant evacuation elevator is provided the codes still require this elevator to go into phase one recall under an alarm condition. This renders the elevator useless for self evacuation. The group was not comfortable with this condition but did not propose to amendment it due to the fact this is a life safety issue and one that has received great attention on a national level. The group felt that a modification to this section at a local level could have unintended consequences that affect the evacuation of a high rise building.

**403.15. RBC302.4.5.** The PPRBC adds section 403.15. to the 2003 IBC to require a smoke control system throughout all high rise buildings. The current amendment was discussed at length during the 06 code review process and the proposal was made to remove the amendment unless CSFD could support the amendment. During review of the 09 IBC the discussions resumed and representatives from CSFD stated that Fire Operations was comfortable removing the amendment from the code. A full smoke control system can be very costly and difficult to design to work correctly. With the numerous variables and unknown it is possible that a smoke control system through an entire building could provide a false sense of security and therefore the proposal was made to remove the amendment and follow the IBC as written.  
**ACTION REQUIRED.**

**404.9.** This section is new and allow for a travel distance up to 200 feet in an atrium.

**405.1 – Exception 6.** The group noted this was a new exception that provides added clarity.

**406.1.1.** RBC302.4.6 amends the IBC to delete this section. The group was not aware of the intent of this amendment and felt that it may be related to the addition of Townhomes to the IBC under the 2005 PPRBC. The general consensus was the amendment is not necessary as the IBC clearly intends to limit the size of a U occupancy and the proposal was made to eliminate the amendment. This was also the proposal by the 06 IBC review committee.

**ACTION REQUIRED.**

**406.1.2.** The RBC also amends the IBC to delete this section. Because the previous amendment has been eliminated it is logical to eliminate RBC302.2.4.7 and permit an increase in the area of a U occupancy. The group did not feel it was necessary to maintain these amendments. This was also the proposal by the 06 IBC review committee.  
**ACTION REQUIRED.**

**406.1.3.** RBC302.4.8 amends this section of the IBC to require a specific slope. There was extensive discussion regarding specifying a slope of a garage floor under the review of the 06 IBC, 06 IRC and 09 IRC. All groups agreed that this amendment is not necessary. The IBC states that the floor must “slope” because the intent is create a path for liquids to drain. This is performance based criteria that and the RBC amendment adds un-necessary prescriptive language.  
**ACTION REQUIRED.**

**406.1.4.** RBC302.4.9 amends item one of this section to require 5/8” gyp board where the IBC requires 1/2”. The amendment also addresses the spacing of the framing members and permits an alternate to the prescriptive requirement. The proposal was made to keep the amendment but clean up the language as the amendment appears to require nails or screws at 16” o.c. when the intent is framing spaced at 16” o.c. This proposal is not consistent with the IRC as the IRC only requires 5/8” gyp board at the ceiling but the group felt because this is a commercial application the added protection of the 5/8 is necessary due to unknown fire

loading and other conditions. The group also noted the IBC requires a self closing door where the IRC does not. The group was in favor of maintaining the self closing door requirement. The same proposal was made by the 2006 IBC review committee.

**ACTION REQUIRED.**

**406.1.5.** The IBC now requires garage door openers to be UL Listed. The group was unsure why this was added but did not feel it presented an issue. No modification was proposed.

**406.2.6.** RBC302.4.10 amends this section of the IBC to specify a minimum floor slope in a parking garage. The 06 code review committee proposed to delete this amendment for reasons similar to those discussed above in section 406.1.3. The 09 review committee came to the same conclusion and suggested the amendment be deleted as the IBC provides performance criteria. **ACTION REQUIRED.**

**406.5.2.** The group noted that this section is new but did not feel that it presented any major problems. Most fueling occurs on concrete pads and if other than concrete is used the permit holder would be responsible for providing the necessary documentation.

**407.4.3.** The group indicated this section is new but falls in line with the requirements of 407.4 and provides added clarity to the code as earlier versions did not specifically address Horizontal Smoke Barriers.

**407.10.** See discussion under 1014.2.7.

**408.3.3.** This section is new and adds the provision to use a trap door to access a guard tower in an I-3 occupancy. No modification proposed.

**408.3.5.** This section adds a provision to access a guard tower or similar space via ships ladder. Under earlier codes a stairway would be required. No modification proposed.

**408.4.** It was noted that this section was modified and "area of refuge" was changed to "refuge area". After some research it was determined that a "refuge area" is an area where inmates will congregate and is not intended to function as part of the means of egress for people with physical disabilities (area of refuge). The Refuge Area is defined in section 408.6.2. The change adds clarity and no modifications were proposed.

**408.5.1.** The group noted that this section is new and adds flexibility for opening between floors in an I-3 occupancy. No modification proposed.

**410.4.** Very minor changes, no technical change.

**421.4.3.** This section was not revised in the 2009 IBC but was modified in the 2006 IBC. The proposal of the 06 review committee was to eliminate RBC302.4.12 as the exception is very similar to the RBC amendment. The proposal was made to follow the recommendation of the 06 review and eliminate the amendment. **ACTION REQUIRED.**

**Section 414 through 418, 421.** The group scanned over these sections and did not have any concerns but agreed to wait until CSFD had a chance to review these sections. Aside from CSFD comments the group proposed to accept these sections as is with no modifications.

**Section 419.** It was noted that this section is new in its entirety and allows for a building to be used for residential and commercial use. The unit is restricted to 3000 square feet and the commercial activities may not be dedicated to more than 50% of the building. See *Significant Changes to the IBC 2009 Edition* for more information on this application. No modifications proposed.

**420.2. & 420.3.** These sections of the 2009 IBC are new and added to address the separation of a dwelling or sleeping unit from other occupancies. Earlier versions of the IBC required the dwelling or sleeping units to be separated from each other but had no provisions to separate the dwelling or sleeping unit from adjacent occupancies. If a hotel is constructed utilizing non-separated uses no separation is required between occupancies. If a guest room (R-1) is located above a meeting room (A-3) the 2003 and 2006 IBC would not require a separation between the R-1 and the A-3. The 2009 IBC addresses this condition and requires the separation between occupancies meet the same criteria as the separation between dwelling or sleeping units. No modifications proposed.

**Section 422.** This section of the IBC is new in its entirety as well. This section addresses

health care facilities that may render a patient in capable of self preservation. See the definition of "Ambulatory Health Care Facility". Should a facility exceed 10,000 square feet it must be provided with two separate smoke compartments and the travel distance may not exceed 200 feet. These provisions are similar to those found in an I-2 occupancy and are required due to the inability to evacuate patients who may be sedated or rendered in capable of self preservation by other means. These occupancies typically employ the use of medical gases and have an increased risk when compared to a "typical" B occupancy. Section 422.5 requires a sprinkler system where the facility meets the provisions of 903.2.2. See *Significant Changes to the IBC 2009 Edition* for more information on this application. No modifications proposed.

**502.1. BASEMENT.** The 2005 RBC replaces the definition of basement to note that it is not defined as a crawlspace and must be provide with a permanent floor. Upon review of the 2009 definition only a minor modification is necessary as the new definition is shorter and provides added clarity in relation to "story above grade plane". The amendment has been revised only to add the requirement for a floor. The floor requirement is added to help distinguish a basement from a crawlspace. The previous amendment referenced the fact that a basement could not be defined as a crawlspace. This reference has been removed and the reference has been added to the definition of crawlspace as this term is not defined in the IBC but is defined in the RBC. Suggest that the same modification is made in the IRC so that the codes are consistent. **ACTION REQUIRED.**

**503.1.** The 2009 IBC has reduced the maximum number of stories in type IIB and IIIB of occupancy group B, M, S-1, and S-2. See *Significant Changes to the IBC 2009 Edition* for more information on this modification. The maximum allowable areas have not been modified. The impact of this modification is unclear and due to the fact that this could be considered a life safety modification the group was not in favor a code amendment.

**503.1.1.** This section exempts special industrial occupancies from complying with the allowable height and area requirements of Table 503 and is not new but has been revised from the 2003 edition. Locally this section of code has not been used by the industry but the code does not require contain any requirements for a specific type of construction.

**506.4.** The 2009 IBC has added a new section for single occupancy buildings that allows for increased areas. No modifications proposed. This change provides the user additional flexibility but could pose a problem if the occupancy of the building is changed.

**506.5.** This section has been re-worded to provide clarity in how mixed occupancy allowable area is determined. The user is sent to section 508 where the user has the choice of using separated or non separated occupancies. No technical change and no modifications proposed.

**507.** The provisions for unlimited area buildings have been expanded and allow for greater flexibility than previous codes.

**507.7.** This section has been revised and allows a group A-3 building of type II or IV construction to be unlimited in area provided 4 criteria are met. Previously the code required type I or II construction.

**507.12.** New section to allow unlimited area covered malls and anchor stores in accordance with 402.6.

**508.1.** Exception 3 is new and does not consider a live / work unit separate occupancies provided it complies with 419.

**508.2.4.** Exception 3 is new and now requires a dwelling unit to be separated from other occupancies in accordance with 420. Previously the code only required dwelling units to be separated from each other and not from other occupancies unless the Separated Uses provision was used. No modification proposed as the group felt that the 2009 IBC had corrected an oversight on the part of the code.

**TABLE 508.2.5.** In the 2003 IBC this was TABLE 302.1.1 and was titled "Incidental Use Areas". It has been re-titled to better reflect the use of the space and it now called "Incidental Accessory Occupancies". Parking Garages have been removed from

the table as they are considered a separate occupancy. Paint Shop requirements have been reduced. Storage Rooms have been removed. Battery storage requirements have been revised and the allowable quantities have been reduced. Fire Pump Rooms have been added and will be an impact to the industry. Locally there are only a few high rise building so the high rise impact will be minimal but the non high rise modification will be a change. If a building has a Fire Pump likely the entire building will be sprinklered therefore the room only needs to meet the 1hr criteria.

**508.2.5.1.** The 2009 IBC clarifies what was a major problem in earlier codes. Supporting construction of Incidental Accessory Occupancies is not required to be protected in type IIB, IIIB and VB construction. This section also requires Fire Barriers to be used to provide the separation which in turn provides direction as to how to address openings and penetrations.

**508.2.5.2.** This section now expands upon the requirements for how an Incidental Accessory Occupancy is addressed when a Fire Barrier is not required. Previously the code was ambiguous as to how to address openings and only required "construction capable of resisting the passage of smoke". These changes provide clear direction and are in line with previous interpretations of the code. No modifications proposed.

**509.2.** This section is new and provides expanded use of a horizontal assembly to create separate buildings provided certain criteria are met. This modification provided greater flexibility to larger multi occupancy / use structures.

**TABLE 601.** Minor changes that do not have a technical impact. Added reference to definitions.

**603.1.** The list of items not required to meet type of construction requirements has been expanded.

**703.6.** This section is new and requires fire walls, fire barriers, fire partitions, smoke barriers, and smoke partitions to be clearly labeled in the field. This change will have a minor impact but will assist in future building modifications and changes as well as provide clarity to building maintenance personal and fire inspectors. No modification

proposed. This requirement exists in other codes such as NFPA 101 is required in facilities such as hospitals that must meet federal requirements.

**704.3.** An exception has been added.

**704.13.** This section is new and addresses the use of Sprayed Fire-Resistant Materials (SFRM). The impact will be minimal as these requirements basically require the SFRM to comply and be installed with the product listing as is currently required. No impact and no modification proposed.

**705.2.** This section has been re-worked and provides greater flexibility for exterior wall projections. A third method has been added that provides relief when a building is sprinklered in accordance with 705.8.2. Language has been added to clarify that buildings on the same lot meeting the provisions of 705.3 need not comply with this section. No modification proposed.

**705.5.** This section has been revised and requires a wall with a fire separation distance of less or equal to 10 feet to be rated for protection from both sides. Walls with a fire separation distance of greater than 10 feet need only be rated for exposure from the inside when required by table 601 and 602. Previously the threshold was 5 feet. The 2003 IBC was also not clear as to if this section applied to requirements of Table 601. Language has been added to address this and the change is in line with the RBD interpretation. The impact should be minor but will have an impact on certain number of projects. No modification proposed.

**705.8.** This section has been re-worded for clarity and has little technical change.

**TABLE 705.8.** This table has been expanded and reflects previous code requirements but does so in a much more user friendly format. Previous codes provided opening protection relief in several manners but the requirements are not easy to follow. The new format provides added clarity and flexibility while maintaining the intent of previous code editions.

**705.11. RBC302.4.12** The 2005 PPRBC amends this section (704.11 in 03 IBC) to require Class A roofing and sprinkler system in lieu of the fire retardant treated wood or 5/8" type X gypsum permitted in option 5.1

and 5.2. The group discussed the RBD amendment and proposed keeping the current option (5.3). Further discussion in chapter 9 involved removal of the current amendments to exclude sprinklers in group R fire areas. It was noted that the 2009 IBC as well as previous version have required sprinklers in group R fire areas and therefore option 5.1 and 5.2 assume the building is sprinkled. It was also noted that Colorado Springs requires Class A roofing on group R fire areas so the amendment only serves to "water down" the requirements of 705.11. The proposal stood to keep the amendment as the conclusion was reached that the amendment provides more than adequate protection as the entire roof is protected above and beyond the assumption of 705.11 and the inside of the structure is protected with a sprinkler. The proposal was made to correct the code section and revise the section so it reads as an additional option. **ACTION REQUIRED.**

**706.1.1.** An exception has been added for Anchor buildings. No modification proposed.

**706.5.1.** A second option has been added for the termination of a fire wall at an exterior wall. The first option requires protection of the exterior wall on each side of the fire wall provided the angle between exterior walls to less than 180 degrees. The second option allows the user to place an imaginary lot line extend outward from the fire in a user determined location. Fire separation distance is measured from the exterior wall to the lot line and exterior walls and openings must be protected in accordance with section 705. See *Significant Changes to the IBC 2009 Edition* for more information on this modification. The result is added flexibility in the building design.

**706.6. RBC302.4.13.** The PPRBC amends exception 4.2 this section (705.6 in 03 IBC) to require Class A roof covering where the IBC requires Class B. The group discussed the amendment and could not support the additional requirement of the RBC and proposed eliminating the amendment. The intent of the fire wall is to compartmentalize a building and keep fire from spreading throughout the structure. Class A roof covering provides fire protection from the exterior surface, not the underside and

therefore has a minimal impact on spread of a fire through the building. **ACTION REQUIRED.** It was also noted that exception 5 has been added to address the expanded use of the 3hr horizontal assemblies to create separate buildings.

**706.6. RBC302.4.14.** The RBC amends this section (705.6, Exception 4.3) by adding an additional option for Fire Wall termination should the building be sprinkled in accordance with 903.3.1.1 or 903.3.1.2 of the 2003 IBC. The group discussed the amendment and proposed to keep the amendment as it adds design flexibility and does not reduce code requirements. Per exception 4 a Fire Wall may terminate at the roof deck provided certain criteria are met. There is no relief for a sprinkler system but a sprinkler system does serve to knock down or slow down fire spread therefore reducing the need for additional protection at the top of the Fire Wall. This exception only applies when the sprinkler system is an NFPA 13 or 13R system. The proposal was made to keep the amendment and revise the appropriate code references. **ACTION REQUIRED.**

**706.8.** The opening limitation in fire walls as been revised from 120 square feet to 156 square feet. No modification proposed.

**707.3.9.** This section has been re-worded for clarity and does not appear to contain any technical changes.

**707.5.1.** The supporting construction provisions for Fire Barriers have been clarified and exceptions added. Result is an easier to use code.

**707.6.** The exceptions for openings in Fire Barriers have been expanded. Little technical change but does provided added design flexibility.

**708.2.** Exception 13-15 have been added. No modification proposed.

**708.14.1.** Exception 4-6 have been reworded for clarity and 1-2 occupancies have been removed from exception 4. Exception 7 has been added to not require an elevator lobby in an open parking garage.

**708.14.1.1.** Added reference to section 1007 and Area of Refuge, more discussion below. No modification proposed.

**709.3. RBC302.4.15.** This was 708.3 in the 2003 IBC. The PPRBC amends this section to delete exception 2 which allows for the rating of a fire partition to be reduced from 1 to ½ hour for dwelling and sleeping unit separation when the building is sprinkled per NFPA 13. The group could not support the amendment and felt that a reduction should be permissible should a building be fully sprinkled. The proposal was made to eliminate the amendment and follow the IBC as written. It was also noted that the ½ rating was introduced at a time when there were very few assemblies that met this criteria. **ACTION REQUIRED.**

**709.4. RBC302.4.16.** This was section 708.4 in the 2003 IBC. The PPRBC modifies this section to delete exception 5 and replace it with criteria that requires a wall separating dwelling units to go to the underside of the roof deck. This amendment has been a long standing problem as the text of section 709.4 requires this, the exceptions are exceptions to the requirement. Removing this amendment and following the IBC as written will reduce many problems. It was noted that this amendment may have been added to the code as previous amendments moved townhomes from the IRC to the IBC. The intent may have been to separate townhome with a full height wall as required in the IRC for townhomes. Current code proposal move townhomes back to the IRC as intended by ICC. The proposal was made to delete the amendment. **ACTION REQUIRED.**

**710.5.** Exception 2 has been added.

**712.9.** This section has been added and addresses the use of a horizontal assembly as a Smoke Barrier. This addition goes along with section 407.4.3 which is also an addition to address this concept. The addition will make it easier to define a smoke compartment and earlier codes have not clearly recognized horizontal assemblies as a smoke barrier. The section also addresses openings in the horizontal assembly. See *Significant Changes to the IBC 2009 Edition* for more information on this modification. No modification proposed.

**714.4.1.** This section has been added and addresses construction voids created

between a curtain wall and a floor assembly. While this section is new to the code this condition has been enforced locally as other sections of the code address the condition but may not do so in such a clear manner.

**715.4.3. RBC302.4.17.** This was section 715.3.3 in the 2003 IBC. The PPRBC amends this section to address how fire doors are tested and deletes the "artificial bottom seal". The group was unsure as to why this amendment had been proposed as it addresses testing that occurs on a national level, not a local level. The 2009 code has been re-worded and testing criteria has been revised. The revision removed the language that the RBC amendment addressed and the group concluded that the amendment was not needed and proposed removing it. **ACTION REQUIRED.**

**716.5.6.** This section has been added and now requires fire dampers at exterior walls that are fire resistance rated per 705.10. While section 705.10 does not provide crystal clear direction as to how the mechanical openings are treated it appears safe to consider a mechanical opening the same as any other opening and apply table 705.8. By applying table 705.8 to mechanical openings the only time a fire damper would be required in an exterior wall would be due to fire separation distance and not due to type of construction as protection of openings is based solely upon fire separation distance. This addition will require some change in RBD philosophy but should be straight forward with minimal impact. No modification proposed.

**901.1. RBC302.4.18.** The PPRBC amends this section to give the appropriate fire authority the ability to enforce this chapter in agreement with the Building Department. The group discussed the amendment and after receiving confirmation from CSFD agreed to keep the amendment as the current process works well. Both groups did not feel that it was necessary to remove the amendment but also did not feel that it was completely necessary. The proposal was made to maintain the amendment but change the language to the "Building Official" rather than "Building Department". **ACTION REQUIRED.**

**902.1 FIRE AREA.** The definition of Fire Area has been moved from chapter 7 of the 2003 IBC to chapter 9 of the 2009 IBC. The definition has also been revised to include area under a horizontal projection (roof) that does not have walls. This definition is now in line with the definition of building area used in allowable area determination. The revised definition for Fire Area now also addresses the use of horizontal assemblies used to create separate fire areas. This concept is also addressed in 901.7. The end result is added design flexibility and better code clarity.

**903.2.1.2.** The 2009 IBC has reduced the threshold for when sprinklers are required in an A2 occupancy. Earlier codes required sprinklers when the occupant load exceeded 300. The 2009 IBC reduces the occupant load to 100 but the 5000 square foot criteria have not changed. This may have an impact locally as typically sprinklers in an A2 occupancy have resulted from the fire area criteria and not the occupant load. This may make this section of code more difficult to enforce as occupant load determination can be somewhat subjective where fire area is not subjective. No modifications were proposed.

**903.2.3.** The 2009 IBC has reduced the threshold for sprinklers in E occupancies from a fire area of 20,000 square feet in the 03 and 06 IBC to 12,000 square feet in the 2009 IBC. No modifications proposed.

**903.2.8. RBC302.4.19.** This was 903.2.7 in the 2003 IBC. The PPRBC amends this section of the code to exclude sprinklers from specific R occupancies. Part of the reason for this amendment was due to townhomes being moved into the IBC from the IRC. The 1<sup>st</sup> exception addresses R3 occupancies, which may be constructed under the IRC and the current IRC proposal excludes one and two family dwelling from sprinkler requirements. R3 occupancies would be a "commercial" residence. The 06 review committee was in favor of removing the amendment as was the 09 review group. This amendment has been difficult to enforce as it does not address multiple R3 occupancies or R3 occupancies attached to other occupancies. The proposal was made to remove the amendment and follow the

IBC as written. This will reduce confusion as well as ensure other sections of the code that assume an R occupancy is sprinklered work correctly. **ACTION REQUIRED.**

**903.2.9.** The 2009 IBC now requires an S-1 occupancy used for the storage of commercial trucks or buss with a fire area in excess of 5000 square feet to be sprinklered. The same provision has been added to 903.2.9.1 for repair of commercial trucks and buses.

**903.2.10.** The 2009 IBC has removed the requirement for a sprinkler system in an S-2 enclosed parking garage with a fire area less than 12,000 square feet. The 2003 IBC requires ALL S-2 enclosed parking garages to be sprinklered.

**905. RBC302.4.20.** The PPRBC amends section 905 of the IBC to allow the appropriate fire jurisdiction to regulate standpipe systems. The group discussed the current amendment and with input from CSFD proposed keeping the amendment. . **ACTION REQUIRED.**

**906.** The group discussed section 906 that addresses portable fire extinguishers. This section has not be enforced by RBD and has always been handled by the fire authority but there is no current amendment to provide for this. The group suggested an amendment similar to the previous amendment to formally give this authority to the appropriate fire department. Because the fire authority is responsible for fire maintenance inspections including portable extinguishers after the building is constructed it is important that the fire department ensure the placement and type of extinguisher meet their requirements. .

**ACTION REQUIRED.**

**907. RBC302.4.21.** The PPRBC amends this section to allow the appropriate fire authority to regulate fire alarm and detection systems. The group discussed the current amendment and with input from CSFD proposed to keep the amendment. .

**ACTION REQUIRED.**

**913.** The 2009 IBC has added a section to address fire pumps and how they are protected. The most notable change comes from section 913.2.1 and requires fire pumps to be located within a 2 hour enclosure (fire barriers and horizontal

assemblies). There are two exceptions; one allows the fire rating to be reduced to 1 hour provided the building is sprinkled and not a high rise building. The second exception removes the separation criteria if the pumps are physically separated from the building per NFPA 20. It appears that NFPA 20 would require 50' of separation but it is unlikely that these criteria would be used due cold winter temperatures and the possibility of freezing. No modification proposed.

1003.2. The 2009 IBC has added three exceptions for ceiling height in the general means of egress. Exceptions 6,7, and 8 are new. No modifications proposed.

**1004.1.1.** *RBC302.4.22.* The PPRBC amends this section (1004.1.2 in 2003 IBC) to include an OLF for beauty care. Furthermore the PPRBC adds language to specify a use not listed in Table 1004.1.2 be considered as the use it most nearly resembles. The group discussed both amendments and agreed that neither amendment is necessary. The 2009 IBC has added language to address uses not listed in Table 1004.1.1 and this language would cover the beauty care business. The group agreed that the beauty care business would most likely fall under "Shops and other vocational uses" with an OLF of 50. The proposal was made to remove the current amendment. **ACTION REQUIRED.**

**1005.1.** Minimum egress width has been revised in the 2009 IBC and a few errors have been corrected. In summary the reduction of egress width in a sprinklered building has been removed. The impact of this change should be minor as very seldom do these factors control the width of the means of egress. In buildings and spaces with a high occupant load this change will impact the width of the means of egress but it is not likely to impact the majority of buildings constructed in this jurisdiction. No modification was proposed.

**1007.2.** *RBC302.4.23.* The PPRBC amends the 2003 IBC to remove platform lifts as an accessible component in the accessible means of egress. This was item 4 in the 03 IBC and is item 5 in the 09 IBC. Platform lifts are recognized as an accessible feature by ICC as well as companion codes. The

amendment was discussed and the proposal was made to remove it as the group could not support a reason for the amendment.

**ACTION REQUIRED.**

**1007.3.** This section has been revised but when compared to the 2003 IBC the changes are not of a technical nature. A stairway may still be considered as part of the accessible means of egress provided it complies with section 1016.1. An area of refuge need only be provided when the building is not sprinkled. No modifications proposed.

**1007.4.** The 2009 IBC has added two exceptions for elevators used as the accessible means of egress. Exception 3 eliminates the requirement for an area of refuge at elevators not required to be located within a shaft and exception 4 pertains to smoke protected seating areas. No modification proposed.

**1007.5.** *RBC302.4.24.* The PPRBC amend this section of the 2003 IBC to remove platform lifts as part of the accessible means of egress. The proposal was made to remove the amendment, see discussion on section 1007.2. **ACTION REQUIRED.**

**1007.6.** Two exceptions have been added to this section.

**1007.6.2.** The 2<sup>nd</sup> exception that eliminates the requirement for a smoke barrier around the area of refuge when the building is sprinkled has been removed from the 2009 IBC.

**1007.8.** The 2009 IBC now requires two way communications at elevator landings on each accessible floor that is one or more story above or below the level of exit discharge. This new requirement will apply to building that are 3 or more stories tall. The first exception provides relief from the requirement should the building be equipped with an area of refuge which also requires the same two way communication. The second exception provides relief with the building is equipped with ramps. It appears that the IBC has addressed the fact that those with special physical needs may remain trapped in a building after the elevator is sent into phase one recall. This has been a long standing question but the solution provides its own set of problems. The requirement for two way

communications must be coordinated with the local fire authorities. The group was very uncomfortable proposing an amendment to a section of code that is clearly a life safety issue but did agree that the impact of this requirement could be significant. The conclusion was to discuss this provision with staff from the fire departments and determine how to address this requirement. **ACTION REQUIRED.**

**1007.8.1.** This section addresses how the two way communications system required in 1007.8 functions. This section can require the system to dial out to 911 when a central control point is not constantly attended. The group felt it was imperative to discuss this with fire operations and E911 and this requirement has the potential to overload the E911 system in an emergency not to mention false alarms or kids "pushing buttons". **ACTION REQUIRED.**

**1008.1.2.** Several additional exceptions have been added to this section. Most notable is item 9 which now permit a sliding door in other than H occupancies with an occupant load of less than 10. Locally this has been permitted under item 1 but the added clarity is helpful. No modification proposed.

**1008.1.6.** *RBC302.4.26.* The PPRBC modifies this section and allows for a reduced landing on the exterior side of a door similar to an amendment in the 2009 IRC. The group discussed the amendment and could not support it. The fact that there is a similar amendment in the 2009 IRC was discussed and because a building built under the IBC is considered commercial the group was not in favor of maintaining the amendment. In a commercial occupancy be it R2 or R3 the occupant may not be familiar with the surroundings as they would be in a one or two family dwelling. The proposal was made to eliminate the amendment and follow the IBC as written. **ACTION REQUIRED.**

**1008.1.7.** *RBC302.4.27.* The PPRBC modifies this section (1008.1.6 in the 03 IBC) to delete the exception. The group discussed the modification and could not support it. The proposal was made to delete the amendment and follow the IBC as written. **ACTION REQUIRED.**

**1008.1.9.4.** The 2009 IBC includes three new exceptions to the use of bolt locks. Exceptions 3-5 are new and allow greater design flexibility while maintaining a safe and effective means of egress. The group like the change and did not propose any modifications.

**1008.1.5.** *RBC302.4.25.* The PPRBC modifies exception 3 (1008.1.4 in the 03 IBC) and changes the step height from 7 ¾" to 8". In order to be consistent with proposed changes to the 2009 IRC the group proposed eliminating the amendment. **ACTION REQUIRED.**

**1008.1.10.** *RBC302.4.28.* The PPRBC modifies this section (1008.1.9 in the 03 IBC) and requires panic hardware at 50 occupants rather than 100 in A and E occupancies. The 2009 IBC has changed the occupant load to 50 and therefore the current amendment is not necessary. **ACTION REQUIRED.**

**1009.1.** *RBC302.4.29.* The PPRBC amends this section to delete exception 4 which address a stairway lift within a dwelling unit. Without the exception there are no criteria to address stairway width with a stairway lift and the RBC does not delete the use of a stairway lift within a dwelling. The group could not support the amendment as proposed removing it from the RBC. This recommendation follows that of the 06 review committee. **ACTION REQUIRED.**

**1009.2.** Exception 2 has been added to this section of the IBC and allows for a residential type stair to be built in R-2, R-3 and U occupancies. The exception allows for the walls of the stair opening to project into the framed stair opening. See *Significant Changes* book for a better description of the change. No modification proposed.

**1009.4.2.** *RBC302.4.30.* This was section 1009.3 in the 2003 IBC. The PPRBC amends exception 5 of this section to modify the rise and run of a stair within a dwelling unit to 8" rise, 9" run. This amendment was also part of the 2003 IRC amendments. The 2006 review committee proposed to eliminate this amendment and follow the IBC as written. The 2009 IRC proposed amendments also remove this amendment and follow the IRC at 7¾" max rise, 10" min run. The group proposed to eliminate the

amendment and follow the IBC un-amended in order to maintain consistency with the 2009 IRC. **ACTION REQUIRED.**

**1009.4.2.** Minor changes this section. Exception 2 and 7 are new and reflect criteria addressed in other sections of the code.

**1009.4.4.** This was 1009.3.1 in the 2003 IBC. This section has been revised and the criteria for winders has been more clearly addressed. Winders must be of the same consistent shape as the 3/8" tolerance is measured at the walkline as defined in 1009.3. This is not a change from earlier codes but earlier codes were not clear as to require all winder treads to be of identical shape. No modification proposed.

**1009.4.5.** This was section 1009.3.2. in the 2003 IBC. The radius of curvature of the leading edge of stair treads has been increased from 1/2" to 9/16". Exception 2 has been expanded to include F, H and S occupancies where stairs are not accessible to the general public. Exceptions 3 and 4 have been added to reflect spiral stairs and alternating tread devices as permitted in other sections of the IBC.

**1009.7.** This was 1009.6 in the 03 IBC. Exception 2 has been added and allows for alternating tread devices to extend 20' without a landing.

**1009.14.** This section is new and requires penthouses containing elevator equipment to be accessed by a stairway. This is new to the IBC but is consistent with ASME A17.1 so it should not impact the industry.

**1010.2.** The exception has been revised to include E occupancies.

**1010.6.3.** Exception 2 has been added and allows for a ramp landing to be reduced when it is not part of the accessible means of egress.

**1010.9.** Exception 4 has been added to exclude edge protection on ramps at fixed seating.

**1011.1.** Criteria has been added to limit the distance from exit sign in *exit access corridors* or *exit passageways* to 100' or the listed viewable distance. This is new but only applies corridors and exit passageways. Minor change, no modifications proposed.

**1012.3.** Previous codes only allowed for type I handrails. The 2009 IBC adds Type II

handrails and the exception limits Type II handrail use to R-2, R-3, and U occupancies. Section 1012.3 makes a provision for "equivalent graspability" and the Significant Changes book states that a Type II handrail is "equivalent to a Type I handrail" therefore the interpretation could be made that both Type I and Type II handrails are now permissible in commercial occupancies. Regardless of the interpretation the changes allows for added design flexibility and no modifications were proposed.

**1012.6.** This section has been reworded for clarity as previous codes were vague. The new language is in line with RBD interpretation of previous code language and therefore this will not have an impact. No modifications were proposed.

**1013.2. RBC302.4.31.** This was section 1012.2 in the 2003 IBC. Exception 2 has been added to the 2009 IBC and allows for a reduced guard height when the guard functions as both a guard and handrail within a dwelling unit. The PPRBC amended this section to allow for this provision as previous codes did not contain this exception. The RBC limited the minimum height to 36" where the new exception allows for 34" to 38". The proposal was made to eliminate the RBC amendment as the IBC address the issue. **ACTION REQUIRED.**

**1013.3.** Exception 1 has changed the minimum height from 34" to 36" as well as the maximum sphere size from 8" to 4 3/8". No modification proposed.

**1013.5. RBC302.4.31.** This was section 1012.5 in the 2003 IBC. The RBC modifies this section to not require guards at mechanical equipment. The group discussed the issue and was unclear as to why the 03 IBC had been amended. The issue is clearly a life safety issue for those accessing and servicing equipment. The 2009 IBC expands the guard criteria to roof access located adjacent to a roof edge. The 06 review committee was not in favor of maintaining the amendment and the 2009 review committee proposed to eliminate the amendment due to life safety concerns. **ACTION REQUIRED.**

**1014.2.7.** The 2009 IBC specifies that suites within an I-2 occupancies must be

separated from other portions of the building by Smoke Barriers. While the group did not disagree with the requirement there is confusion as to why this criterion is located in chapter 10. It does not belong in chapter 10 as this section of code pertains strictly to the means of egress. Construction requirements specific to I-2 and other occupancies are located in chapter 4. The group proposed an amendment to move this section of code the section 407. **ACTION REQUIRED.**

**1014.3.** This was section 1013.3. in the 2003 IBC. Exception 4 has been added and allows for the common path of egress travel to be increased to 125' in R-2 occupancies provide with a NFPA 13 or 13R system. This is new to the IBC and allows added design flexibility as well as a break for sprinklers. Previously the common path of travel was limited to 75' and un-amended the IBC required the building to be sprinkled. No modifications proposed.

**1015.1.** Item 1, exception. The occupant load at which a second means of egress in R-2 and R-3 occupancies has been increased from 11 to 21 in building provided with a sprinkler system. This allows for a dwelling unit of 4000 sf with one exit where previous codes only permitted 2000 sf. This exception includes R-3 occupancies but 1021.2 establishes that R-3 occupancies may be provided with a single exit and exceed 20 occupants.

**1016.2.** The increased travel distance criteria in fully sprinkled F-1 and S-1 occupancies provided roof vents has been eliminated. This was section 1015.2 in the 2003 IBC. See *Significant Changes* book for more discussion on this subject. No modification proposed.

**1017.** New criteria have been added for aisles. The group reviewed the modifications and did not feel that it presented a problem. No modifications proposed.

**1018.1.** *RBC302.1.33.* This was section 1016.1 in the 2003 IBC. The PPRBC modifies this section to require 1hr corridors in sprinkled R occupancies where the IBC requires 0.5hr corridors. The intent of this amendment was to address a change in the 03 codes to include 0.5hr construction. At the time there were very few 0.5hr rated

assemblies and the review committee was uncomfortable with an unknown and therefore the code was amended. Since that time 0.5hr assemblies have been tested and listed. The 06 review committee proposed eliminating the RBC amendment and the 09 review committee came to the same conclusion. **ACTION REQUIRED.**

**1018.3.** The 2009 IBC adds this section to specify that corridors may not be obstructed. The only obstructions permitted are doors in compliance with 1005.2. No modification was proposed.

**1018.4.** The permissible length of a dead end corridor has been expanded to 50' in the majority of occupancies exclusive of H provided the building is equipped with a NFPA 13 sprinkler system. The result is added design flexibility and no modifications were proposed.

**1019.** Egress balconies are addressed in section 1013.5 of the 2003 IBC but have been moved to 1019 and given their own section. No technical change and no modifications proposed.

**1020.** This section was moved from 1017 in the 2003 IBC.

**1021.** This section has been moved from section 1018 of the 2003 IBC. The section has been revised to reflect the fact that the number of is determined by story rather than "building".

**1021.1.** The number of exits required based on occupant load has not changed. The 2009 IBC adds 4 exceptions of which result in no technical change but do provide for needed clarification.

**1021.2.** This section has been reworked for added clarity. The most notable change is to Table 1021.2 which now permits a 3<sup>rd</sup> story R-2 occupancy to be provided with a single exit provided the building is sprinkled and is equipped with emergency escape and rescue openings in addition to other criteria. This revision fixes a "problem" in the 2003 IBC in which two sections were in conflict with each other. The group reviewed the section and approved of the change and proposed no amendment.

**1022.1.** This was section 1019.1 in the 2003 IBC. The entire section has been reworked for clarity with only minor technical changes. The majority of the

clarifications result around the intent to treat exit enclosures as shafts instead of a separate element. New language also clarifies the intent of the code at the termination of the enclosure; to the exterior of the building, and exit passage way or as permitted in 1027.1.

Exception 4 has been removed and it is unclear as to why but the review group did not feel that this was a major impact.

In the 2003 IBC exceptions 8 & 9 permitted a stair to be unenclosed provided specific criteria are met. These exceptions are widely used and have been removed and relocated to 1016.1. The exceptions remain unchanged but are now tied to travel distance. While the group did not have a problem with the change it may be unclear as to how to apply these two exceptions. If 1016.1 of the IBC do not require an exit enclosure there is no exception or tie to 1022. It could be interrelated that because these exceptions are not referenced in section 1022.1 they do not apply. This does not appear to be the intent of the IBC and looks to be an oversight. RBD's current interpretation of this section is if the exceptions to 1016.1 apply an exit enclosure is not required even though 1022.1 does not address the condition. The group concluded that even though the code may be a bit ambiguous a modification was not required as amendments don't typically serve as "notes" or "clarifications". No modifications were proposed.

**1022.8.** Criteria for floor identification signs have been expanded. The group was not in favor of the change but did not feel comfortable with a modification as the change aids those with special needs on a daily basis as well as during an emergency situation. While this is a change the group did not feel that it would result in a major impact as the current code requires floor identification, just not in such a prescriptive manner.

**1022.9.1.** Exception 3 has been added and eliminates the requirement for a fire barrier between the exit enclosure and the exit passage way provided the exit passageway and exit enclosure are protected as a smoke proof enclosure. This change adds design

flexibility and no modifications were proposed.

**1023.** This was section 1020 in the 2003 IBC. The section has been reworded for clarity and does not appear to contain any technical changes.

**1024.** This is a new section and applies only to high rise construction. The requirements for luminous path marking are quite extensive. While the group understood the requirements it was noted that this will add additional cost to high rise construction and is required on top of emergency lighting and other egress safety features. Maintenance of the luminous marking may be an issue and the enforcement of this will be the responsibility of the fire department. Currently the group was not aware of any proposed high rise construction in this jurisdiction so the impact is unknown. The group discussed the requirements and while not in favor of the added features could not support an amendment to modify the requirements as this is clearly a life safety feature.

**1025.1.** The last two paragraphs of this section have been relocated to the end of 1025.4. This was section 1021 in the 03 IBC. No technical changes.

**1027.1.** This was section 1023 in the 2003 IBC. 1027.1 adds a provision that for the combined use of exception 1 & 2 and does not allow them to be used for more than 50% of the number and capacity of the means of egress. The added criteria may result in some design changes as the 2003 IBC does not contain this restriction. Exception 4 is new and addresses horizontal exits and is in line with other sections of code. The provisions of 1027 remain relatively unchanged with the exception of the 50% criteria. No modifications were proposed.

**1028.1.** This was section 1024.1 in the 2003 IBC. E occupancies have been added to this section. Chapter 3 contains provisions for assembly uses within in E occupancies but allows them to be considered E occupancies rather than A. E occupancies have been added to this section as the use of the space is similar to that in an A occupancy. See the *Significant Changes* Book for more discussion.

**1028.4.** Earlier codes required a physical barrier between seating areas in A occupancies and lobbies and foyers where seats may not be available. This requirement has been removed in the 2009 IBC and the physical barrier is no longer required. See the *Significant Changes* Book for more discussion. No modifications were proposed.

**1028.10.** An exception has been added for row spacing with stairs provided with folding tablet arms.

**1028.13.** Exception 3 has been added and exempts handrail extensions at the top, bottom, and intermediate crossing of aisle stairs. This is new to the code and solves a problem as this type of stair does not have room for handrail extensions. The group approved of the change.

**1029.2. RBC302.4.34.** This is section 1025.2 in the 2003 IBC. The RBC has a long standing amendment to the size of emergency escape and rescue openings. The RBC reduces the minimum opening size from 5.7 sf to 4.5 sf. This amendment was removed in the review of the 2009 IRC. The 2006 code review committee proposed eliminating this amendment and the 09 review committee agreed. The proposal was made to remove this amendment as it is clearly a life safety issue and current RBD staff can no longer support this amendment. The intent of the amendment is unclear and all committee felt that the IRC and IBC should be consistent with emergency escape and rescue opening criteria. The impact to the IBC will be minimal. **ACTION REQUIRED.**

**1029.2.1. RBC302.4.35.** This is section 1025.2.1 in the 2003 IBC. The proposal was made to eliminate the current amendment that allows for a prescriptive emergency escape and rescue opening in 2005 PPRBC for similar reasons as listed above. **ACTION REQUIRED.**

**1029.4. RBC302.4.36.** This is section 1025.4. in the 2003 IBC. The RBC amends this section to not allow bars grill and grates where horizontal projections are permitted above window wells in accordance with RBC302.4.37. The group discussed this amendment as well as the horizontal projection amendment and concluded that

the amendment for bars grill and grates is not necessary. The proposal was made to eliminate the amendment and follow the IBC un-amended. This is in line with the proposal of the 06 review committee. The 09 review committee proposed adding criteria to define "force required for normal operation". The proposal was made to use the 30# criteria established in the 2009 IRC amendments. **ACTION REQUIRED.**

**1029.5.1. RBC302.4.37.** The RBC amends the 2003 IBC to address horizontal projections above or adjacent to emergency escape and rescue openings. This issue is not addressed in the IBC; because it is not addressed an egress window may open to a window well that does not allow egress. Other conditions may not include a window well such as an egress window below a deck. This concern is addressed in the 2009 IRC but in the opinion of the review committee contained several loop holes. The 09 IRC review committee proposed an amendment to address horizontal projections. The 09 IBC review committee proposed removing the current amendment and using the IRC language for an amendment to the IBC to address the scenario so that both codes are consistent. It was proposed that this amendment be numbered in a manner that applies to all emergency escape and rescue openings and not just window wells. **ACTION REQUIRED.**

**1103.2.3.** The threshold for accessible employee work areas has been increased from 150 sf in the 2003 IBC to 300 sf in the 2009 IBC. No modifications proposed.

**1104.1.** The RBC amends this section to limit the extent of RBD jurisdiction for accessibility to 5' outside the building envelope. Other AHJ's are responsible for site accessibility. The proposal was made to maintain RBC302.4.38. **ACTION REQUIRED.**

**1104.3.** Exceptions 2 and 3 in the 2003 IBC have been moved to other sections. Exception 2 is new and pertains to I-2 occupancies. No modifications proposed.

**1104.4.** This section has remained virtually unchanged with the exception of some rewording. Exception 5 is new and

addresses elevated work stations within a courtroom. No modifications proposed.

**1106.** This section addresses accessible parking and is not enforced by RBD. The previous amendment (RBC302.4.38) limits RBD jurisdiction to 5' outside the building envelope for accessibility. The current RBC amends this section to address parking requirements where CRS Title 9 requirements don't apply. The proposal was made to delete the current amendment and replace it an amendment to delete section 1106. **ACTION REQUIRED.**

**1109.2.** Minor changes to this section, no technical impact, formatting only. No modifications proposed.

**1109.2.1.** This section of the 2003 IBC referred to "unisex" facilities. The 2009 code has modified the language to address "family or assisted use" facilities. The significant change book states that this is a clarification to more clearly address the intent of the space. Does not appear to have an impact and no proposals were suggested.

**1109.2.3.** This section is new and requires an "enhanced reach" lavatory in facilities provided with 6 or more lavatories. This provision has been added to the code to address the special needs of adults with dwarfism. No modifications to this section were proposed but this will have an impact and a review of ANSI A117.1 section 606.7 is highly recommended.

**Beyond this point comments are limited due to time constraints for code adoption. Only major changes or RBC amendments are discussed beyond Chapter 11 at this point.**

**1207.** Section 1207 of the IBC addresses sound transmission. Historically this section has not been adopted locally due to several reasons. RBD does not feel that this is a life safety issue and is a builder / owner / contractor responsibility. The proposal was made to maintain RBC302.4.41.

**1209.2.** This section addresses attic access. RBC302.4.42 amends this section to not require attic access in R-2 or R-3 occupancies with a sloping ceiling. The group discussed the amendment and could not support it as attic access is often used for service of utilities and fire operations. The group proposed removing the

amendment so that the IRC and IBC are in line. **ACTION REQUIRED.**

**1405.3.** This section of the IBC addresses vapor retarders and requires a vapor retarder on the interior side of the walls in this jurisdiction. This issue was discussed at length in the IRC review committee and the group proposed amending this section in a manner not to require the retarder. See the IRC review notes for further discussion. The 09 IBC review committee proposed amending the IBC to match the IRC. **ACTION REQUIRED.**

**1501.2.** This section does not exist in the IBC but RBC302.4.43 adds this section to require an Ice Barrier at locations with a elevation in excess of 7000'. The 2009 IBC has revised some sections that pertain to ice barriers and the language used in the code is inconsistent. The IBC does not clearly address the need for the barrier and sets performance criteria. Because of this and the inconsistency within the code the group suggested the current amendment be maintained.

**1503.2.** The proposed amendments to the 2009 IRC contain a provision for roof penetrations such as roof jacks. Locally there has been an issue with roof penetrations located too close to valleys resulting in nail penetration in valley flashing. See the IRC notes for more discussion on this topic. The proposal was made to add the roof penetration criteria to the 2009 IBC as a new section under flashing. **ACTION REQUIRED.**

**1503.2.1.** RBC302.44. amends this section to reduce the required thickness of flashing at wall and roof intersection. This issue was discussed at length in review of the 06 and 09 IRC and all parties involved recommended removing the amendment. The 09 IBC review group proposed removing the amendment so that the IRC and IBC match. **ACTION REQUIRED.**

**1503.4.2.** The 2009 IBC now contains criteria for scuppers used for secondary drainage. The proposal was made to add the prescriptive criteria used in the amendments for the 2009 IRC to this section. **ACTION REQUIRED.**

**1507.2.6.** RBC302.4.45 amends this section of the code to address locations where face

nailing of asphalt shingles is permissible. The table that this amendment references in the 2003 IBC has been removed. The group was in favor of keeping the amendment and suggested it be modified to match the criteria in the 2009 IRC amendments for face nailing. The section number and must be changed and the amendment revised to add a new code section rather than reference a table. **ACTION REQUIRED.**

**1507.2.5.** RBC 302.4.46 amends this section of the 2003 IBC to require a heavier weight asphalt roofing material in colder months of the year. The revision to section 1507 particularly tables 1507.2.7 (1) and (2) address sealed and unsealed shingles. This issue was discussed in the 09 IRC review, see IRC review notes for more information. The group proposed to delete the current amendment as it is no longer needed. **ACTION REQUIRED.**

**1507.2.9.1.** RBC302.4.47 amends this section to reduce the required thickness of base and cap flashing. This amendment was removed from the 2009 IRC and the group suggested the amendment be removed from the 2009 IBC as well. **ACTION REQUIRED.**

**1507.2.9.2.** Item 1. The IBC requires the valley to be lined to a width of 24". The IRC as amended requires only 20" but was increased from 16" in the 2005 PPRBC. The proposal was made to modify the IBC to match the IRC and change the 24" criteria to 20". **ACTION REQUIRED.**

**Table 1507.2.9.2.** RBC 302.4.48 amends this table to change 26 gage galvanized steel to 28 gage. This topic was also discussed during 06 / 09 IRC review and the proposal was made to remove it. The 09 IBC review group supported this. **ACTION REQUIRED.**

**1507.3.9.** RBC302.4.49. amends this section to reduce the required thickness of galvanized steel flashing at clay tile roofs similar to pervious amendments for asphalt roofs. The proposal was made to remove this amendment as has been proposed in the IRC amendments. **ACTION REQUIRED.**

**Table 1507.8** RBC302.4.50 amends Table 1507.8 to address face nailing of wood shakes and shingles. The proposal was made to modify the criteria to match what is

proposed in the 09 IRC as well as that used for asphalt shingles. The amendment is to the table as the table addresses both products rather than a particular code section as 1507.8 covers wood shingles and 1508.9 covers wood shakes but the charging language of both sections refers the user to Table 1507.8. **ACTION REQUIRED.**

**1507.8.7. and 1507.9.8** RBC302.4.51 amends this table to change 26 gage galvanized steel to 28 gage. This topic was also discussed during 06 / 09 IRC review and the proposal was made to remove it. The 09 IBC review group supported this. The same action was proposed for Section 1507.9.8 and RBC302.1.52. **ACTION REQUIRED.**

**1510.2.** RBC302.4.53. contains provisions for adding a heavier weight roof to a structure that initially was designed for a lightweight roof. Previously this amendment was to section 1510.3 but the 2009 IBC requires all roofing to be removed prior to a reroof. This is a new provision and therefore the amendment must be located under a new section. This issue was addressed in the same manner in the 2009 IRC proposed amendments. The proposal was made to keep the amendment but reword it to match that in the IRC proposed amendments and locate it as a new subsection under 1510.2. **ACTION REQUIRED.**

**1603.1.5.** RBC32.4.54 amends this section to only require seismic design criteria on the plans if seismic loading controls the structural design of the building. The group discussed the amendment and could not support it as it may be possible that seismic does control the design and the engineer is not aware of it or failed to use the proper design values. The group proposed eliminating the amendment but did not feel that this change would result in an impact on the design community as all engineers should do a seismic analysis. **ACTION REQUIRED.**

**Table 1604.5.** Minor clarifications to the 2009 IBC.

**Table 1607.1.** The 2009 IBC has revised the live load criteria for decks and balconies to match the live load of the occupancy served. The loading of the deck or balcony is determined by the use. The group was in

favor of the change and did feel any amendment was necessary.

Table 1607.1 RBC302.4.55 amends this section of the 2003 IBC to address live loads at decks and exterior balconies. The group felt that items 5 and 6 are no longer necessary as the 2009 IBC now requires the deck and balcony to be designed to the load served. The amendment the item 6 also contains provisions for a 1.2 safety factor at the ledger. The group felt that because all commercial decks (IBC) require a design professional this safety factor is not necessary. It was maintained in the 2009 IRC amendments due to the fact that IRC decks are handled in a prescriptive manner. The RBC amends item 16 to only require the top level of a parking garage be designed for full live load plus ½ design snow load. Sections 1605.2.1 and 1605.3 (4<sup>th</sup> load combination) have been revised to address this load combination so the amendment is redundant and no longer necessary.

The RBC also amends item 27 to address habitable attics. This has been revised in the 2009 IBC and the amendment is no longer necessary. The group proposed to eliminate RBC302.4.55. **ACTION REQUIRED.**

**1608.** RBC 302.4.56 modifies this section to address how snow loads are calculated. The group discussed the amendment and proposed to keep it with minor modifications to make sure it works with ASCE 7-05. This was the same proposal that the 06 IBC review committee came to. **ACTION REQUIRED.**

**1609.1.1.** RBC302.4.57 modifies this section to state that all wind design must be per ASCE 7 and sets the wind speed at 100 mph. The group discussed the amendment and could not support it as the wind speed is determined in section 1609.3. The 2009 IBC includes a reference to the all heights method in 1609.6. The proposal was made to remove the amendment as the group could not support it. **ACTION REQUIRED.**

1609.1.1. It was brought to the attention of RBD staff that ASCE 7-05 which is adopted by the 06 / 09 IBC contains specific revisions to the code that have a significant impact on free standing signs. RBD staff researched the issue and found that the changes increase the wind load on free

standing signs and walls by a minimum of 42% up to more than 80%. The group discussed this and could not support the increased loading on signs. The proposal was made to modify section 1609.1.1 to include a 7<sup>th</sup> exception with language similar to what has been used in other jurisdictions (Phoenix, Utah, Oregon). The proposed amendment will keep design loads in line with current loading requirements (ASCE 7-02). **ACTION REQUIRED.**

**1609.1.2.** RBC302.4.58 modifies this section to increase the minimum wind load from 10 psf to 20 psf. This amendment is no longer applicable to 2009 IBC. The group proposed to eliminate the amendment. The simplified wind load method of the 03 IBC has been revised and RBD staff is comfortable to the revised design criteria. **ACTION REQUIRED.**

**1609.3.** RBC302.4.59 amends this section to establish the minimum basic wind speed. Portions of El Paso County are considered a special wind region and therefore the AHJ must establish the wind speed based upon local climatic data. The group (as well as the 06 review committee) was comfortable with the current basic wind speed of 100 mph. The proposal was made to maintain the amendment. The word "minimum" was added to clarify that higher wind speeds may be used. **ACTION REQUIRED.**

**1609.4.3.** The 2009 IBC has been revised in how the exposure category is determined. The 09 introduces "surface roughness" categories which are then used to determine the exposure category. Both the 06 and 09 review committees were not in favor of changing the current minimum exposure category and proposed to keep exposure C as the minimum. Because the IBC has been modified the amendment needs minor tweaking and the proposal was made to delete exposure B from the code. **ACTION REQUIRED.**

**1609.6.1.** The 2009 IBC has revised the "simplified wind load method" in the 2003 IBC to what is now called the "alternate all-heights method". RBC302.4.61 amends this section to limit the applicability of the method to structures less than 60 feet tall. The new 09 method limits the height to 75 feet. The group discussed the amendment

and could not support limiting the height to 60 feet. The limit of 75 feet is in line with the definition of high rise construction. The proposal was made to eliminate the amendment. **ACTION REQUIRED.**

**1609.6.2.1.1.** RBC302.4.62 amends this section to increase the minimum wind load from 10psf to 20psf. This amendment is no longer applicable as the simplified wind load method has been completely revised as discussed above. The group proposed eliminating the amendment as it no longer necessary. **ACTION REQUIRED.**

**Table 1609.6.2(2).** RBC302.4.63 amends Figure 1609.6.2.2 of the 2003 IBC to correct a error in which the "zones" are not listed. This is a typo but one that leaves the user at a dead end therefore the amendment is necessary. This error has been corrected in the 2009 IBC and Figure 1609.6.2.2 has been reworked into Table 1609.6.2(2). The amendment is no longer necessary. The proposal was made to eliminate the amendment. **ACTION REQUIRED.**

**RBC302.4.64.** Redundant amendment, same section reference as RBC302.4.62 with the exception of positive and negative pressures. Amendment not needed. Delete. **ACTION REQUIRED.**

**1610.1.** RBC302.4.65 amends this section to address the manner in which lateral soil loads are applied to a foundation or retaining wall. The group discussed the current amendment and proposed to maintain the amendment as it requires a soils report and the section 1610.1 of the 09 IBC does not require a soils report but does allow for prescriptive design. Using the prescriptive criteria would make the inspector, designer, and contractor responsible for determining the soil classification in accordance with Table 1610.1. The proposal was made to keep the amendment.

**1611.1.** The 2009 IBC has been revised to include tables to determine average hourly rain fall for the purpose of structural design of the building. This was not included in the 2003 IBC. Upon review of the 2009 IPC and IBC the tables used match and therefore the same criteria is used for structural design and roof drain sizing. Locally this number has been established as 3.0 inches per hour

for the majority of the county. No modification was proposed by the review group.

**1612.3.** This section of the 2009 IBC is required to be completed by the AHJ for determination of flood hazard areas. This section is not addressed by the 2005 RBC and should refer to the floodplain section of the RBC. The proposal was made to add an amendment directing the user to Section RBC313 of the RBC for determination of flood hazard areas as the RBC contains it own Floodplain code and regulations. **ACTION REQUIRED.**

**1613.5.1.** RBC302.4.66 amends section 1615.1 of the 2003 IBC to set the spectral response factors at a given value. The group discussed the amendment and was in favor of maintaining the amendment as El Paso County does not appear to be located near any significant boundaries per figures 1613.5(1) and (2). Establishing these values in the code simplifies the process for the design professional as well as code review. The values set per the amendment were researched at length during the review of the 03 IBC and the group did not feel it necessary to research the values again as it does not appear there have been any changes in the mapped values. The proposal was made to keep the current amendment but update the code section reference. **ACTION REQUIRED.**

**1703.1.1.** This section has been revised to clarify an "approved agency" must be independent from the contractor. No modification proposed.

**1704.** RBC302.4.67 amends this section of the IBC to refer to RBC109.7 which address how special inspections are handled within this jurisdiction. The group discussed the issue and could not support removing the amendment from the RBC as the current process works and saves contractors and owners a significant amount of money. The proposal was made to maintain the current amendment and delete Section 1704 from the 2009 IBC.