# 2018 IBC Update

*Based on the 2018 International Building Code,® (IBC®)*

The *International Building Code*® (IBC®), establishes minimum regulations for building safety.

This handout will identify important changes in the IBC from 2015 to 2018 edition. Participants will be presented with those changes that will most impact their use of the code when they adopt these I-Codes. The learner will receive an overview of the most important code changes.

## Goal

Participants will be able to use this document to identify changes between the 2015 and 2018 IBC allowing them to apply theses code requirements to design, plan submittals and/or inspection.

The lecture and activity format allows participants to discuss the changes, reasons for the changes, and answer knowledge review questions. Information presented will allow participants to apply these new code requirements to design, plan review, and/or inspection.

## Objectives

Upon completion, participants will be better able to:

- Identify the most significant differences between the 2015 and the 2018 IBC.
- Explain the differences between the current and previous edition.
- Identify changes in organization and code requirements.
- Identify the applicability of design, plan review and inspection requirements.

## Content

Chapters of the IBC included in this handout:

- Chapter 2, Definitions
- Chapter 3, Use and Occupancy Classification
- Chapter 4, Special Detailed Requirements Based on Use and Occupancy
- Chapter 5, Building Heights and Areas
- Chapter 6, Types of Construction
- Chapter 7, Fire and Smoke Protection Features
- Chapter 8, Interior Finishes
- Chapter 9, Fire Protection Systems
- Chapter 10, Means of Egress
- Chapter 11, Accessibility
- Chapter 12, Interior Environment
- Chapter 13 Energy Efficiency
- Chapter 14, Exterior Walls
- Chapter 15, Roof Assemblies and Rooftop Structures
- Chapter 16, Structural Design
- Chapter 17, Special Inspections and Tests
- Chapter 18, Soils and Foundations
- Chapter 19, Concrete
- Chapter 22, Steel
- Chapter 23, Wood
- Chapter 26, Plastic
- Chapter 30, Elevators and Conveying Systems
- Chapter 31, Special Construction
- Appendix G, Flood-Resistant Construction
- Appendix N, Replicable Buildings

| Chapter 2: Definitions | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 202 | 202 | **Definitions**<br><br>**(Several definitions have been added to this edition of the IBC, as well as deleting and revising existing definitions.)** | New definitions include “Greenhouse” and “Repair garage”.<br><br>The definition for “Sleeping unit” has been clarified while “Ambulatory care facility” and “Clinic, outpatient” have been deleted.<br><br>**GREENHOUSE.** A structure or thermally isolated area of a building that maintains a specialized sunlit environment used for, and essential to, the cultivation, protection or maintenance of plants.<br><br>**REPAIR GARAGE.** A building, structure or portion thereof used for servicing or repairing motor vehicles.<br><br>**SLEEPING UNIT.** A ~~room or space in which people sleep, which can also include~~ single unit providing rooms or spaces for one or more persons that includes permanent provisions for sleeping, and can include provisions for living, eating, and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units.<br><br>~~AMBULATORY CARE FACILITY.~~<br><br>~~CLINIC, OUTPATIENT.~~ |

| Chapter 3: Use and Occupancy | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 302.1 Clarification | 302.1 | **Classification of Outdoor Areas** | It has been clarified that occupied roofs are to be assigned one or more occupancy classifications in a manner consistent with the classification of uses inside the building, based upon the fire and life safety hazards posed by the rooftop activities. |
| 303.4 Clarification | 303.4 | **Assembly Use of Greenhouses Classification** | Where the use of the greenhouse is assembly in nature due to public access for the viewing of plants, classification as a Group A-3 occupancy is appropriate. |
| 309.1 Clarification | 309.1 | **Mercantile Use of Greenhouses Classification** | Where a greenhouse is provided with public access for the purpose of the display and sale of plants, a Group M occupancy shall be assigned. |
| 310.3, 310.4<br><br>Clarification | 310.3, 310.4 | **Classification of Congregate Living Facilities** | Dormitories and similar nontransient uses now are to be considered as Group R-3 occupancies where the occupant load is 16 or less. In addition, transient lodging houses, such as bed-and-breakfast establishments, can only be considered as Group R-3 occupancies where their total occupant load is 10 or less. |

| Chapter 3: Use and Occupancy, Continued | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 310.4.2 Modification | 310.4.2 | **Owner-Occupied Lodging Houses** | The criteria permitting compliance with the IRC for the design and construction of owner-occupied lodging houses has been expanded by now also requiring that the total number of lodging house occupants be limited to 10. |
| 311.1.1 Modification | 311.1.1 | **Classification of Accessory Storage Spaces** | Regardless of size, storage rooms and spaces that are accessory to other uses are to be classified as part of the occupancy to which they are accessory. |
| 312.1.1 Clarification | 312.1.1 | **Classification of Agricultural Greenhouses** | Because a Group U occupancy includes those low-hazard structures that do not conform to any other specific occupancy classification, it has been clarified that greenhouses are only to be considered as Group U where they are not more appropriately classified as one of the other occupancies established in the IBC. |

| Chapter 4: Special Requirements for Use and Occupancy | | | |
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| **Code Section** | | Section Title | **Description of Change** |
| **2018** | **2015** | | |
| 403.2.1.1 Modification | 403.2.1.1 | **Type of Construction in High-Rise Buildings** | The reduction in the minimum required fire-resistance ratings for certain building elements of high-rise buildings is no longer applicable to Group H-2, H-3 and H-5 occupancies due to the high physical hazard level such uses pose. |
| 404.6 Modification | 404.6 | **Enclosure of Atriums** | The requirement that those spaces not separated from an atrium be accounted for in the design of the smoke control system now applies only in those cases where the atrium is provided with a smoke control system. |
| 406.1 Clarification | 406.1 | **Motor Vehicle-Related Occupancies** | Provisions specific to motor-vehicle-related uses have been reformatted in a manner such that those requirements that apply to all such uses have been relocated in a single Section 406.1. |
| 407.5 Modification | 407.5 | **Maximum Smoke Compartment Size** | The allowance for larger smoke compartments in hospitals and other Group I-2, Condition 2 occupancies has now been modified to only include compartments containing single-patient sleeping rooms and suites, as well as those compartments without patient sleeping rooms. |
| 407.5.4 Modification | 407.5.4 | **Required Egress from Smoke Compartments** | In Group I-2 occupancies, any smoke compartment that does not have an exit from the compartment must now provide direct access to a minimum of two adjacent smoke compartments. |
| 420.7 Modification | 420.7 | **Corridor Protection in Assisted Living Units** | Shared living spaces, group meeting spaces and multipurpose therapeutic spaces are now permitted to be open to fire-rated corridors in Group I-1 assisted living housing facilities provided specific conditions are met. |
| 420.8 Addition | | **Group I-1 Cooking Facilities** | A room or space containing a cooking facility with domestic cooking appliances is now permitted to be open to a corridor in Group I-1 occupancies provided nine specific conditions are met. |
| 420.10 Addition | | **Dormitory Cooking Facilities** | The installation and use of domestic cooking appliances are now regulated in both common areas and sleeping rooms of Group R-2 college dormitories. |

| Chapter 4: Special Requirements for Use and Occupancy, Continued | | | |
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| **Code Section** | | Section Title | **Description of Change** |
| **2018** | **2015** | | |
| 427 Addition | | **Medical Gas Systems** | In order to provide a more comprehensive and efficient compilation of construction regulations, those IFC medical gas system requirements related directly to building construction have now been replicated in the IBC. |
| 428 Addition | | **Higher Education Laboratories** | Higher education laboratories using hazardous materials can now be considered Group B occupancies provided such laboratories comply with new Section 428 which provides an alternative approach to the existing control area provisions. |

| Chapter 5: Heights and Areas | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 503.1, 706.1 Modification | 503.1, 706.1 | **Scope of Fire Wall Use** | The use of fire walls is now strictly limited to only the determination of permissible types of construction, based upon allowable building area and height. |
| 503.1.4 Addition | | **Allowable Height and Area of Occupied Roofs** | New criteria is now provided establishing the appropriate methodology in the regulation of building height in stories above grade plane where one or more occupancies is located on the roof. |
| Table 506.2, Note i<br><br>Modification | Table 506.2, Note i | **Allowable Area of Type VB Greenhouses** | The tabular allowable area for nonsprinklered single-story greenhouses classified as Group U occupancies has been substantially increased for Type VB buildings to be consistent with those greenhouses classified as Group B, M, F-2 and E. |
| 507.4 Clarification | 507.4 | **Sprinklers in Unlimited Area Group A-4 Buildings** | The sprinkler omission permitted for indoor participant sport areas of unlimited area Group A-4 buildings is now clearly not applicable to storage rooms, press boxes, concession areas and other ancillary spaces. |
| 508.4.1, Table 508.4 Modification | 508.4.1, Table 508.4 | **508.4.1, Table 508.4 Separated Occupancies vs. Fire Area Separations** | New provisions in Section 508.4.1 and Table 508.4 clarify that the fire separations used for mixed occupancy purposes and those used for fire area purposes address different concerns, and as such the most restrictive fire-resistance-rated conditions shall apply. |
| 510.2 Clarification | 510.2 | **Horizontal Building Separation** | Vertical offsets are permitted in the horizontal fire-resistance-rated separation mandated for “podium buildings” provided the minimum required fire-resistance rating is maintained for the offsets and their supporting elements. |

| Chapter 6: Types of Construction | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| Table 601, Note b Modification | Table 601, Note b | **Fire Protection of Structural Roof Members** | All portions of the roof construction, including primary structural frame members such as girders and beams, are now selectively exempted from fire-resistance requirements based on Table 601 where every portion of the roof construction is at least 20 feet above any floor below. |
| 602.3, 602.4.1 Clarification | 602.3, 602.4.1 | **FRT Wood Sheathing in Exterior Wall Assemblies** | It has now been clarified that wood sheathing, as well wood framing, is permitted in exterior walls of Type III and IV buildings where fire-retardant-treated wood is used. |

| Chapter 7: Fire and Smoke Protection Features | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 704.2, 704.4.1 Modification | 704.2, 704.4.1 | **Column Protection in Light-Frame Construction** | In walls of light-frame construction where primary structural frame members require fire-resistive protection, columns extending only between the bottom and top plates do not need to be provided with individual encasement protection. |
| Modification 705.2.3, 705.2.3.1, 705.2.4 | 1406.3, 1406.4 | **Combustible Balconies, Projections, and Bay Windows** | Construction requirements for balconies, porches, decks, bay windows and oriel windows have been relocated from Section 1406 (Combustible Materials on the Exterior Side of Exterior Walls) to Section 705.2.3 (Combustible Projections). |
| 706.1.1 Modification | 706.1.1 | **Party Walls Not Constructed as Fire Walls** | Construction as a fire wall is no longer required for a party wall provided the aggregate height and area of the buildings on each side of the party wall are compliant with Chapter 5 and applicable easements and agreements are established addressing the maintenance of all fire and life safety systems of both buildings. |
| 706.2 Modification | 706.2 | **Structural Continuity of Double Fire Walls** | In Seismic Design Categories D through F, floor and roof sheathing is permitted to continue through light-frame double fire wall assemblies where the sheathing does not exceed a thickness of ¾ inch. |
| 708.4 Clarification | 708.4 | **Continuity of Fire Partitions** | The continuity requirements for fire partitions have been reformatted to provide for increased clarity of their construction requirements. |
| 708.4.2 Clarification | 708.4.2 | **Fireblocking and Draftstopping at Fire Partitions** | Fireblocking and draftstopping requirements for fire partitions of combustible construction have been consolidated and modified. |
| 713.8.1 Modification | 713.8.1 | **Membrane Penetrations of Shaft Enclosures** | Membrane penetrations not related to the purpose of a shaft enclosure are no longer prohibited from penetrating the outside of the enclosure. |
| 716.2.6.5 Addition | | **Delayed-Action Self-Closing Doors** | Self-closing doors that are not also required to be automatic-closing are now permitted to be equipped with delayed-action closers. |

| Chapter 8: Interior Finishes | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 803.3 Modification | 803.3 | **Interior Finish Requirements for Heavy Timber Construction** | Materials considered heavy timber construction must now comply with interior finish requirements where exposed in interior exit stairways and exit passageways. |
| 803.11, 803.12 Addition | | **Flame Spread Testing of Laminates and Veneers** | Specific flame-spread testing provisions have been added to the IBC to address the use of factory-produced laminated products with a wood substrate as well as facings and wood veneers applied over a wood substrate on site. |

| Chapter 9: Fire Protection Systems | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 901.6.2 Addition | | **Integrated Fire Protection System Testing** | Test criteria have been added to the code with a reference to new NFPA 4, *Standard for Integrated Fire Protection and Life Safety System Testing*, to ensure that where multiple fire protection systems or life safety systems are integrated, the acceptance process and subsequent testing must evaluate all of the integrated systems as a whole. |
| 902.8 Addition | | **Fire Pump and Fire Sprinkler Riser Rooms** | A number of prescriptive requirements have been added regulating the design and construction of automatic sprinkler system riser rooms and fire pump rooms. |
| 903.2.1 Clarification | 903.2.1 | **Sprinklers Required in Group A Occupancies** | The extent to which automatic sprinkler systems are required in multi-story Group A occupancies has been clarified. |
| 903.2.3 Modification | 903.2.3 | **Sprinklers in Group E occupancies** | Criteria for occupant load threshold and location within the building have been added as conditions that could require sprinkler protection in an Group E educational occupancy. |
| 903.3.1.2.1 Modification | 903.3.1.2.1 | **Sprinkler Protection at Balconies and Decks** | Where nonrated balconies and similar combustible projections of dwelling and sleeping units are permitted in Type IIIA and VA buildings, it has been clarified that the sprinkler protection is to be extended to the area of the projections. |
| 903.3.1.2.3 Addition | | **Protection of Attics in Group R Occupancies** | Sprinkler protection or acceptable alternative methods for the protection of attics are now addressed for mid-rise buildings housing multi-family occupancies and equipped with an NFPA 13R sprinkler system. |

| Chapter 9: Fire Protection Systems, Continued | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 904.13 Modification | 904.13 | **Domestic Cooking Protection in Institutional and Residential Occupancies** | Where domestic-type cooking operations are present in Group I-1 occupancies and college dormitories classified as Group R-2, an automatic fire-extinguishing system is now mandated in conjunction with the required hood over any cooktop or range. |
| 904.14 Addition | | **Aerosol Fire Extinguishing Systems** | The installation, inspection, testing and maintenance of aerosol fire extinguishing systems are now addressed through applicable references to Sections 901 and 904.4 of the IBC and NFPA 2010, as well as the system's listing and manufacturer's instructions. |
| 905.3.1 Modification: | 905.3.1 | **Class III Standpipes** | Standpipe system protection is now required in those buildings having four or more stories above or below grade plane regardless of the vertical distance between the floor level of the highest story and the level of the fire department vehicle access. |
| 905.4 Modification | 905.4 | **Class I Standpipe Connection Locations** | Modifications have been made regarding the location of hose connections within interior exit stairway enclosures as well as the minimum number of connections required where open breezeways and open stairs are provided. |
| 907.2.1 Modification | 907.2.1 | **Fire Alarms in Group A Occupancies** | An additional criterion now mandates the installation of a manual fire alarm system where there is a Group A occupant load of more than 100 located above or below the level of exit discharge. |
| 907.2.10 Deletion | 907.2.10 | **Group R-4 Fire Alarm Systems** | The installation of a manual fire alarm system and an automatic smoke detection system are no longer required in Group R-4 occupancies. |

| Chapter 10: Means of Egress | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 1004.8, Table 1004.5 Modification | 1004.8, Table 1004.5 | **Occupant Load Calculation in Business Use Areas** | The method of calculating occupant load in business areas has been revised which will typically result in reduced design occupant loads. However, higher design occupant loads can be now be assigned to concentrated business areas such as telephone call centers and similar uses. |
| 1006.2.1, Table 1006.2.1 Modification | 1006.2.1, Table 1006.2.1 | **Group R Spaces with One Exit or Exit Access Doorway** | Allowances for single-exit Group R spaces have been reformatted and the approach to accumulating occupant loads from adjacent rooms discharging through foyers and lobbies has been clarified. |

| Chapter 10: Means of Egress, Continued | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 1006.3 Clarification | 1006.3 | **Egress Through Adjacent Stories** | The determination of means of egress requirements has been clarified where the occupants must travel to an adjacent story to reach a complying exit or exits. |
| 1010.1.1 Clarification | 1010.1.1 | **Size of Doors** | Provisions addressing limits to the width and height of door openings have been selectively reformatted and revised as necessary to correlate with the technical accessibility requirements of ICC A117.1. |
| 1010.1.4.4 Addition | | **Locking Arrangements in Educational Occupancies** | Guidance has been provided to allow for enhanced security measures on educational classroom egress doors and yet still continue to comply with applicable means of egress requirements. |
| 1010.1.9.8 Modification | 1010.1.9.8 | **Use of Delayed Egress Locking Systems in Group E Classrooms** | The allowance for the use of delayed egress locking systems has been expanded to also include egress doors serving Group E classrooms with an occupant load of less than 50, as well as secondary exits or exit access doors serving courtrooms. |
| 1010.3.2 Addition | | **Security Access Turnstiles** | New conditions of use are now provided to the building official with criteria to evaluate security access turnstiles that are located in a manner to obstruct a means of egress. |
| 1013.2 Modification | 1013.2 | **Floor Level Exit Sign Location** | The permitted location for low-level exit signs selectively required in Group R-1 occupancies has been expanded to now allow the bottom of such sign to be mounted up to 18 inches above the floor. |
| 1023.3.1 Modification | 1023.3.1 | **Stairway Extensions** | Fire-resistance-rated separation is not required between an interior exit stairway and its exit passageway extension where both the stair enclosure and exit passageway are pressurized. |
| 1026.4 Modification | 1026.4 | **Refuge Areas for Horizontal Exits** | The method for determining the minimum required refuge area size where a horizontal exit has been provided has been modified to allow for a more appropriate determination of the occupant load assigned to the refuge area. |
| 1030.1 Clarification | 1030.1 | **Required Emergency Escape and Rescue Openings** | The occupancies where emergency openings are required have been clarified and the minimum number of required openings in a residential basement has been revised. |

| Chapter 11: Accessibility | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 1103.2.14 Modification | 1103.2.14 | **Access to Walk-In Coolers and Freezers** | Revised conditions have now been placed on the use of walk-in cooler and freezers exempted from accessibility provisions by requiring them to be accessed from only employee work areas and limiting the scope to only pieces of equipment. |
| 1109.2.1.2 Modification | 1109.2.1.2 | **Fixtures in Family or Assisted-Use Toilet Rooms** | Family or assisted-use toilet rooms may now also contain a child height water closet and lavatory in order to provide a higher level of accommodation. |

| Chapter 12: Interior Environment | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 1206.2, 1207.3 Modification | 1206.2, 1207.3 | **Engineering Analysis of Sound Transmission** | A performance-based alternative approach for meeting the required sound transmission class ratings for unit separation walls and floor/ceiling assemblies in residential buildings has been introduced which allows for the use of an engineering analysis based upon a comparison to previously-tested assemblies. |

| Chapter 14:Exterior Walls | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| Modification Table 1404.2 | Table 1404.2 | **Weather Covering Minimum Thickness** | The minimum required thicknesses of masonry and stone veneer weather coverings have been updated to align with current industry standards. |

| Chapter 15:Roof Assemblies and Rooftop Structures | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 1504.3.3 Addition | | **Metal Roof Shingles** | Metal roof shingles are now addressed separately from other metal panel roof systems with reference made to applicable standards for the labeling and testing of wind resistance for the shingles. |
| 1507.1 Clarification | 1507.1 | **Underlayment** | Reorganization: Underlayment and ice barrier requirements have been relocated from sections describing each type of roofing material and placed into one new section describing the type, attachment and application of underlayment. |

| Chapter 16: Structural Design | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 1603.1 Modification | 1603.1 | **Construction Documents** | The construction document requirements for environmental and special loads have been updated for rain, snow and wind forces and their components. |
| 1604.3.7 Addition | | **Deflection of Glass Framing** | Limits to the deflection of framing which supports glazing has been added to Section 1604.3. |
| 1604.10 Addition | | **Storm Shelters** | The development of loads for storm shelters is to be based on ICC 500 which provides wind speeds for tornado and hurricane shelter design using ASCE 7 load combinations. |
| Table 1607.1 Modification | Table 1607.1 | **Deck Live Load** | Table 1607.1 is now consistent with the provisions in the 2010 and 2016 editions of ASCE 7 for minimum uniformly distributed live loads on decks and balconies by increasing the deck live load to one and one-half times the live load of the area served. |
| 1607.14.2 Addition | | **Minimum Fire Load** | The minimum lateral load that fire walls are required to resist has been established at five pounds per square foot. |
| 1609 Modification | 1609 | **Wind Loads** | Section 1609 now has updated wind speed maps, including maps for the state of Hawaii. Terminology for describing wind speeds has been changed again with ultimate design wind speeds now called basic design wind speeds. |
| 1613 Modification | 1613 | **Earthquake Loads** | The site coefficients contained in the IBC have now been brought into alignment with the newest generation of ground motion attenuation equations. |
| 1613.3.1Modification | 1613.3.1 | **Seismic Maps** | The IBC seismic maps have been updated to match new maps in the 2015 NEHRP Provisions and 2016 ASCE 7 standard. |
| 1615 Addition | | **Tsunami Loads** | There are many coastal communities in the western United States and on islands in the Pacific Ocean which need tsunami-resistant design of critical infrastructure and essential facilities. New IBC Section 1615, Tsunami Loads, has been added to address design of these facilities. |

| Chapter 17: Special Inspections and Tests | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 1704.6 Modification | 1704.6 | **Structural Observations** | Section 1704.6.1 has been added requiring structural observation of buildings that are considered a high-rise or assigned to Risk Category IV. |
| 1705.2.2 Modification | 1705.2.2 | **Metal-plate-connected Wood Trusses** | Five-foot tall wood trusses requiring permanent bracing now require a periodic special inspection to verify that the required bracing has been installed. |
| 1705.12.6 Item 6 Addition | | **Designated Seismic Systems** | Section 1705.12.6 adds a provision for minimum clearance of fire sprinkler components considered as a designated seismic system. |

| Chapter 18: Soils and Foundations | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 1807.2 Modification | 1807.2 | **Retaining Walls** | The requirement for consideration of a keyway in the sliding analysis of retaining walls has been deleted from Section 1807.2.1. |
| 1810.3.8.3 Modification | 1810.3.8.3 | **Precast Prestressed Piles** | Equations in Section 1810.3.8.3 addressing precast prestressed piles have been updated. |

| Chapter 19: Concrete | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 1901.2 Modification | 1901.2 | **Seismic loads for precast concrete diaphragms** | New language adds a requirement for the design of precast concrete diaphragms in high seismic regions to use ASCE 7 Section 14.2.4. |

| Chapter 22: Steel | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 2207.1, Chapter 35 Modification | 2207.1, Chapter 35 | **SJI standard** | The 2015 edition of the combined SJI-100, Standard Specification for K-Series, LH-Series, and DLH-Series Open Web Steel Joists and Joist Girders, is the new referenced standard for steel joists. |
| 2211 Modification | 2211 | **Cold-formed Steel Light-frame Construction** | The 2015 editions of the AISI standards for cold-formed steel are adopted in the 2018 IBC. These new standards include AISI S240, AISI S400 and AISI S202. |

| Chapter 23: Wood | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 2303.2.2 Modification | 1203.2.2 | **Fire-retardant treated wood** | The types of chemical treatment allowed for fire-resistant-treated lumber are clarified. |
| 2303.6 Modification | 2303.6 | **Nails and Staples** | Nails and staples are required to conform to the standard ASTM F 1667 including Supplement 1. Minimum average bending moment values are added for staples. |

| Chapter 23: Wood | | | |
|---|---|---|---|
| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| Table 2304.9.3.2 Addition | | **Mechanically Laminated Decking** | A new alternative fastener schedule for construction of mechanically laminated decking is added to the 2018 IBC giving equivalent power-driven fasteners for the 20 penny nail. |
| Table 2304.10.1 Modification | Table 2304.10.1 | **Ring Shank Nails** | The 2018 IBC and IRC are now aligned by requiring an 8-penny common or ring shank nail when nailing 6:12 on center for roof sheathing. |
| 2304.12.2.5, 2304.12.2.6 Modification | 2304.12.2.5, 2304.12.2.6 | **Supporting members for permeable floors and roofs** | The provisions for permeable floors and roofs are modified to require positive drainage of water and ventilation below the floor or roof to protect supporting wood construction. |
| Table 2308.4.1.1 (1) Modification | Table 2308.4.1.1 (1) | **Header and Girder Spans – Exterior Walls** | The header and girder spans for the exterior bearing wall table are updated to allow #2 Southern Pine design values rather than #1 Southern Pine thereby reducing span lengths. |
| Table 2308.4.1.1 (2) Modification | Table 2308.4.1.1 (2) | **Header and Girder Spans – Interior Bearing Walls** | The header and girder spans for the interior bearing walls table are updated to allow No. 2 Southern Pine design values for spans rather than No. 1 Southern Pine thereby reducing span lengths. |

| Chapter 26: Plastic | | | |
|---|---|---|---|
| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 2603.13 Addition | | **Cladding attachment over foam sheathing to wood framing** | Requirements for cladding over foam sheathing and wood framing are added to the *International Building Code* to match the *International Residential Code* and cold-framed steel stud requirements. |

| Chapter 30: Elevators and Conveying Systems | | | |
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| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 3001.2 Addition | | **Emergency Elevator Communication Systems** | Additional communication capabilities are now required in accessible elevators to enhance the usability of the two-way communication system by individuals with varying degrees of hearing or speech impairments. |

| Chapter 30: Elevators and Conveying Systems | | | |
|---|---|---|---|
| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 3007.1 Modification | 3007.1 | **Extent of Fire Service Access Elevator Travel** | Fire service access elevators, where required, now only need to provide access to those floor levels at and above the lowest level of fire department access. In addition, elevators that only connect a parking garage to a building's lobby need not serve as fire service access elevators. |
| 3008.1 Modification | 3008.1 | **Required Number of Occupant Evacuation Elevators** | A reduction in the minimum number of elevators that must be considered as occupant evacuation elevators now reflects a more reasonable performance-based approach while still retaining the capacity to evacuate a high-rise building more quickly than stairs alone. |

| Chapter 31: Special Construction | | | |
|---|---|---|---|
| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 3112 Addition | | **Relocatable Buildings** | A process of acceptance for relocatable modular buildings has been established in order to provide clear and consistent direction in the relocation, reuse and/or repurposing of such buildings. |

| Chapter 33: Safeguards During Construction | | | |
|---|---|---|---|
| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| 3310.1 Modification | 3310.1 | **Stairways in Buildings under Construction** | At least one temporary or permanent stairway must now be provided in a building under construction once the building has reached a height of 40 feet as measured from the lowest level of fire department vehicle access. |
| 3314 Addition | | **Fire Watch During Construction** | In order to protect adjacent properties from fire in a building of considerable height when under construction, new provisions have been established to give authority to the fire code official to require a fire watch during those hours where no construction work is being done. |

| Appendix G: Flood-Resistant Construction | | | |
|---|---|---|---|
| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| G103.6 Modification | G103.6 | **Watercourse Alteration** | Notification of a watercourse alteration should be given to all adjacent building departments, not just those a building department believes will be affected. |

| Appendix N: Replicable Buildings | | | |
|---|---|---|---|
| **Code Section** | | **Section Title** | **Description of Change** |
| **2018** | **2015** | | |
| Appendix N Addition | | **Replicable Buildings** | Guidelines for replicable buildings have been added to the appendix in order to give jurisdictions a tool they can adopt to help streamline the plan review process in regard to code compliance. |