

## **2015 International Building Code Overview of Changes**

The scope of the International Building Code (IBC) applies to the construction, alteration, movement, enlargement, replacement, repair, use and occupancy, location, maintenance, and removal or demolition of buildings and structures. The IBC establishes the minimum requirements to safeguard the public health, safety and general welfare through structural strength, proper exits, and sanitation. The IBC is also designed to provide safety for firefighters and emergency responders from fire and other hazards associated with the buildings environment.

The 2015 IBC continues to establish minimum regulations for building systems using prescriptive and performance-related provisions. The code changes in this cycle result in technical consistency with the other *International Codes*.

### **New in the 2015 IBC Edition**

111.1, Use and Occupancy. (A change in a building's use, or a portion of a building's use, with no change in its occupancy classification now requires that a new certification of occupancy be issued by the building official.)

406.3.2, Clear Height. (In private garages and carports, the clear height in vehicle and pedestrian traffic areas shall be not less than 7 feet. Van-Accessible parking shall comply with Section 1106.5. General height was 7 feet 6 inches default.)

407.2.6, Nursing Home Cooking Facilities. (In Group I-2, Condition 1, occupancies, shared living spaces, group meeting areas, multipurpose spaces, and a cooking facility with a domestic cooking appliance are now permitted to be open to corridors when code criteria are met.)

407.5, Smoke Barriers. (Maximum allowable smoke compartment size for Group I-2, Condition 2 hospitals and similar occupancies has been increased from 22,500 sq ft to now 40,000 sq ft.)

505.2.3, Exception # 2, Openness. (Mezzanine having two or more exits or access to exits is not required to be open to the room in which the mezzanine is located.)

507.1, General. (The allowance of a single-story basement in unlimited area buildings is permitted.)

507.9, Unlimited Mixed Occupancy Buildings with Group H-5. (Group H-5 buildings are now permitted to be unlimited in area under the special provisions of Section 507. Example of H-5: High-Hazard Semiconductor fabrication facilities and other comparable research/development facilities.)

Table 509, Incidental Uses. (Incidental Uses spaces in Group I-2 occupancies and ambulatory care facilities have been added to the table or have additional fire protection requirements. Example: a Laboratory space in a hospital now requires both 1-hour separation wall and a fire sprinkler system, instead of one or the other.)

510.2, Horizontal Building Separation Allowance. (In the special provisions for podium construction buildings, there is no longer a limit of one story above grade plane allowed below the 3-hour horizontal podium separation. Now more than one story can be located below the 3-hour horizontal podium.)

705.8.5, Vertical Separation of Openings. (A fire-rated exterior wall with openings less than 3 feet vertical separation or 30 inches horizontal flame barriers shall be rated for exposure to fire from both sides. This is to address the concern of a fire spreading out of the building through the opening, then spreading through openings in the above levels.)

903.2.1.6, Assembly Occupancies on Roofs. (A fire sprinkler system is now required to be installed in buildings when the roof is used for a Group A-2 occupancy exceeding 100 occupants and other Group A occupancies exceeding 300 occupants.)

903.2.1.7, Multiple Fire Areas. (Where small Group A areas share a common means of egress, the occupant load of the spaces must be added together to determine if a sprinkler system is required.)

903.2.8, Group R. (Additional fire sprinkler protection is required for attic spaces of Group R-4 depending on the capabilities of the occupants or use of the attic space. Example: Assisted Living Facilities with occupants receiving care who require limited verbal or physical assistance while responding to an emergency situation.)

903.3.1.1.2, Bathrooms. (Group R occupancies, sprinklers shall not be required in bathrooms that do not exceed 55 square feet in area and are located within individual dwelling units with non-combustible walls and ceiling.)

904.13, Domestic Cooking Systems in Group I-2 Condition 1. (Domestic cooking equipment in nursing homes, assisted living facilities, and similar buildings requirements for domestic cooking hood with automatic fire-extinguishing system.)

907.2.3, Group E. (Manual fire alarm is required where the occupant load exceeds 50, and an emergency voice/alarm communication system must only be provided when the occupant load exceeds 100.)

907.2.11.3, Installation Near Cooking Appliances. (Ionization smoke alarms not less than 20 feet from cooking appliance; not less than 10 feet with an alarm-silencing switch; and photoelectric smoke alarm shall not be installed less than 6 feet from cooking appliance.)

907.2.11.4, Installation Near Bathrooms. (Smoke alarms shall be installed not less than 3 feet from a bathroom door or opening.)

915, Carbon Monoxide Detection. (Required in dwelling units, sleeping units, and in classrooms that the building contains or served by a fuel-burning appliance, fuel-burning fireplace, fuel-burning forced air furnace, or attached private garage.)

1004.1.1, Cumulative Occupant Loads. (When occupants egress travel path include intervening spaces or areas the combined cumulative occupant loads of these spaces shall be used to determine the egress pathway capacity design.)

Table 1004.1.2, Maximum Floor Area Allowances per Occupant. (The mercantile use occupant load factor has been revised to a rated of 60 gross sq ft per occupant regardless of the floor level of the mercantile use. Former rate on grade floor was 30 gross sq ft per occupant.)

1007.1, Exit and Exit Access Doorway Configuration. (Exit separation measurement point, required exit separation configuration from other exits, and remoteness of exit access ways have now been provided with specific information to ensure adequate egress path and required exit access separation distance.)

## Sec. 3-6. - INTERNATIONAL BUILDING CODE ADOPTED

A booklet entitled 'International Building Code 2015 Edition' as amended and as hereafter may be amended, at least one (1) copy of which is on file in the office of the Building Official of the City of College Station, Texas, is hereby adopted and designated as the Building Code of the City of College Station, Texas. In addition, Appendix D of the 2015 International Building Code is hereby adopted.

### AMENDMENTS TO INTERNATIONAL BUILDING CODE

**Note: An asterisk at the beginning of a section identifies a new amendment with the 2015 code edition.**

A. The above referenced International Building Code is hereby amended as follows:

1. Section 105 (Permits) is amended by adding Section 105.1.3 to read as follows:

#### **105.1.3 Registration of Contractors.**

It shall be the duty of every individual who makes contracts to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical, or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, and every individual making such contracts and subletting the same or any part thereof, to first register with the Building Official, giving full name, residence, name and place of business, and in case of removal from one place to another to have made corresponding change to the Building Official.

**Exception:** Homeowner permits as provided per local amendment by added Section R105.2.4, International Residential Code.

Plumbing Contractors - Plumbing contractors shall be licensed as prescribed by the State of Texas and shall register their license with the City of College Station before a plumbing permit is issued by the City.

Air Conditioning, Refrigeration and Heating Contractors - Air Conditioning, Refrigeration and Heating Contractors shall be licensed by the State of Texas and shall register their license with the City of College Station before a mechanical permit is issued by the City.

Licensed Irrigators - Irrigation Contractors shall be licensed Irrigators by the State of Texas shall register their license with the City of College Station before a lawn irrigation permit is issued by the City.

Electrical Contractors - Electrical Contractors shall be licensed by the State shall register their license with the City of College Station before an electrical permit is issued by the City.

Electrical Sign Contractors – Electrical Sign Contractors shall be licensed by the State shall register their license with the City of College Station before a permit is issued.

Before any license is registered with the City, the applicant shall have adequate insurance coverage for general liability as provided for by State law for the respective trade.

2. Section 105.2 (work exempt from permit) is amended by deleting item #2 under "Building" and replacing with the following:

“2. Fences of wood, chain link, or similar material, and less than eight feet in height, and walls of brick, stone, concrete, or similar material, and less than six feet in height, shall not be construed to be a structure, nor shall they require a building permit.

3. Section 105.2 (Work exempt from permit) is amended by adding the following under

“Electrical”:

**Replacing Fuses:** No permit shall be required for replacing fuses of like rating.

**Replacing Flush or Snap Switches:** No permit shall be required for replacing flush or snap switches, receptacles, lamp sockets, the installation of lamps, or minor repairs on permanently connected electrical appliances.

**Conveying Signals:** No permit shall be required for the installation, maintenance or alteration of wiring, poles and down guys, apparatus, devices, appliances or equipment for telegraph, telephone, signal service or central station protective service used in conveying signals or intelligence, except where electrical work is done on the primary side of the source of power at a voltage over 50 volts and of more than 500 watts.

**Wiring by Electric Public Service Company:** No permit shall be required for the installation, maintenance or alteration of electric wiring, apparatus devices, appliances or equipment to be installed by an electric public service company for the use of such company in the generation, transmission, distribution, sale or utilization of electrical energy. However, an electric public service company shall not do any wiring on a customer's distribution system, including metering equipment wherever located and transformer vaults in which customer's transformers are located, nor shall any of its employees do any work other than done for said company as hereinbefore provided for by virtue of this exception.

**Temporary Wiring:** No permit shall be required for the installation of temporary wiring, apparatus, devices, appliances or equipment used by a recognized electrical training school or college.

**Railway Crossing Signal Devices:** No permit shall be required for the installation and maintenance of railway crossing signal devices, when such is performed by due authority of the railroad and in accordance with the standards of the American Railroad Association, and in collaboration with and approval of the Department of Public Services of the City of College Station.

**Cellular Transmitting Antennas:** No permit shall be required for the installation, repair or replacement of cellular transmitting antennas.

4. Section 107.1 (General) is amended to include the following at the end of the section and before the exception: “The design professional shall be an architect or engineer legally registered and in compliance under the laws of Texas and shall affix his official seal to the construction documents for the following:

1. All group A, E and I occupancies.
2. Building and structures three or more stories in height
3. Buildings and structures 5,000 square feet or more in total area

Exception: “Group R-3 buildings, regardless of size”

5. Section 109.4 (Work commencing before permit issuance) is amended by deleting the existing text in its entirety and replacing it with the following:

“Any person who commences any work on a building, structure electrical, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to a penalty of 100% of the usual fee in addition to the required permit fees.”

6. Section 109.6 (Refunds) is amended by deleting the existing text in its entirety and replacing it with the following:  
“The City Manager or his designee is authorized to establish a refund policy.”
- \*7. Section [A] 110.3.1 (Footing and foundation inspection) is amended by adding the following to the end of said section:  
“The Building Official shall have the authority to require a form survey to verify building setbacks. Such survey shall be provided to the Building Official prior to placement of concrete and prepared by a surveyor licensed to perform work in the State of Texas.”
8. Section 110.3.5 (Lath and gypsum board inspection) is amended by deleting the section in its entirety.
9. Section 111.2 (Certificate issued) is amended by deleting items number 4, 5, 7, 10, and 11.
10. Section 113 (Board of Appeals) is amended by deleting the section in its entirety.
11. Section 116.1 (Conditions) is amended by deleting the sentence, “Unsafe structures shall be taken down and removed or made safe, as the building official deems necessary and as provided for in this section.” and replacing it with the following: “Unsafe structures shall be taken down, removed or made safe as provided for in Section 1 (C), Chapter 3, Code of Ordinances.”
12. Section 202 (Definitions) is amended by deleting the Townhouse definition and replacing it with the following:  
“**Townhouse.** A single family dwelling unit constructed in a group of attached units separated by property lines in which each unit extend from foundation to roof and with open space on at least two sides.”
13. Section 303.1 (Assembly Group A) is amended by adding “tutorial services” under A-3.
14. Section 501.2 (Address identification) is amended by deleting the existing text in its entirety and replacing it with the following:  
“**501.2 Address identification.** An official address, assigned by the Building Official or his designee, shall be provided and placed pursuant to this section in such a position as to be clearly visible from the public street or roadway fronting the property. Addresses placed pursuant to this section shall be a minimum four (4) inches in height and stroke of minimum one-half (1/2) inch, composed of a durable material and of a color that provides a contrast to the background itself. The official address shall be placed a minimum of thirty-six (36) inches and a maximum of thirty (30) feet in height measured from the ground level. Buildings or structures located more than fifty (50) feet from the street curb shall have an official address at least five (5) inches in height. Durable materials used for the official address shall include, but not be limited to, wood, plastic, metal, weather resistant paint, weather resistant vinyl, or weather resistant material designed for outside use on a glass surface. For single family residences, the requirement of this section may be met by providing a minimum of two (2) inch high numbers on both sides of a U. S. mailbox located near the curb in front of the house, or a freestanding structure with numbers at least four (4) inches in height.

A building complex composed of multiple structures or dwellings shall have an official suite or unit number assigned to each building, suite or tenant as well as a street address number. If there is sufficient street frontage, each building, suite or tenant may also be assigned an official street address number. The official street address number of each structure must be prominently posted on the building so that it is visible from the nearest

public street or designated fire lane. Each number designated by the Building Official, or his designee, for each individual suite or unit must be conspicuously posted on each suite or unit.

Commercial buildings with side or rear access in addition to the main entrance, shall also display the business name and official address on each side or rear door with characters at least two (2) inches in height. Residential structures which provide for rear vehicular access from a dedicated public alley, street or designated fire lane shall conspicuously post an official address at least two (2) inches in height so that it is visible from the public alley, street or designated fire lane.

The owner or manager of a building complex, which contains an enclosed shopping mall, shall submit to the Fire Official four (4) copies of diagrams acceptable to the Fire Marshal of the entire complex, indicating the location and number of each business. When a change in a business name or location is made, the owner or manager shall so advise the Fire Marshal in writing of the change.

When required by the Fire Code Official, address numbers shall be provided in additional approved locations to facilitate emergency response.”

15. Table 803.11 (Interior Wall And Ceiling Finish Requirements By Occupancy) is amended by deleting the existing text in footnote “d” and replacing it with the following:

“Class A interior finish material shall be required in all areas of all assembly occupancies, whether sprinklered or not, except as provided for in notes e and f below.”

16. Section 903.1 (General) is amended by adding the following text at the end of said section:

“For the purposes of this section, the term ‘fire area’ shall be replaced with ‘building area’.”

17. Section 903.2 (Where required) is amended by adding the following text at the end of said section:

“In addition to the requirements of this section, an automatic sprinkler system shall be provided throughout all new buildings and structures as follows:

1. Where the total building area exceeds 12,000 square feet in area.
2. Where the height exceeds two stories, regardless of area.”

- \*18. Section 903.2.1.6 (Assembly occupancies on roofs) is amended by deleting the exception in its entirety.

19. Section 903.2.3 (Group E) is amended by deleting the exception in its entirety.

20. Section 903.2.4 (Group F-1) is amended by deleting the text in item “2” and “3”.

21. Section 903.2.7 (Group M) is amended by replacing “three stories above grade” with “two stories above grade” in item “2” and by replacing “24,000 square feet” with “12,000 square feet” in item “3”.

22. Section 903.2.8 (Group R) is amended by deleting the section in its entirety.

23. Section 903.2.9 (Group S-1) is amended by replacing “three stories above grade” with “two stories above grade” in item “2” and by replacing “24,000 square feet” with “12,000 square feet” in item “3”.

- \*24. Section 903.2.10 (Group S-2 enclosed parking garage) is amended by deleting the exception in its entirety.

25. Section 907.5.2.3.1 (Visible alarms) is amended by deleting the exception and adding Section 907.5.2.3.1.1 to read as follows:

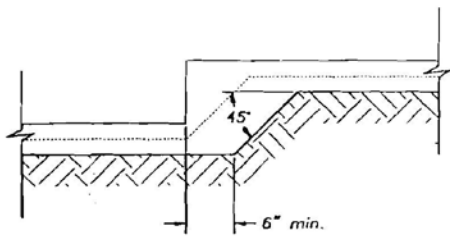
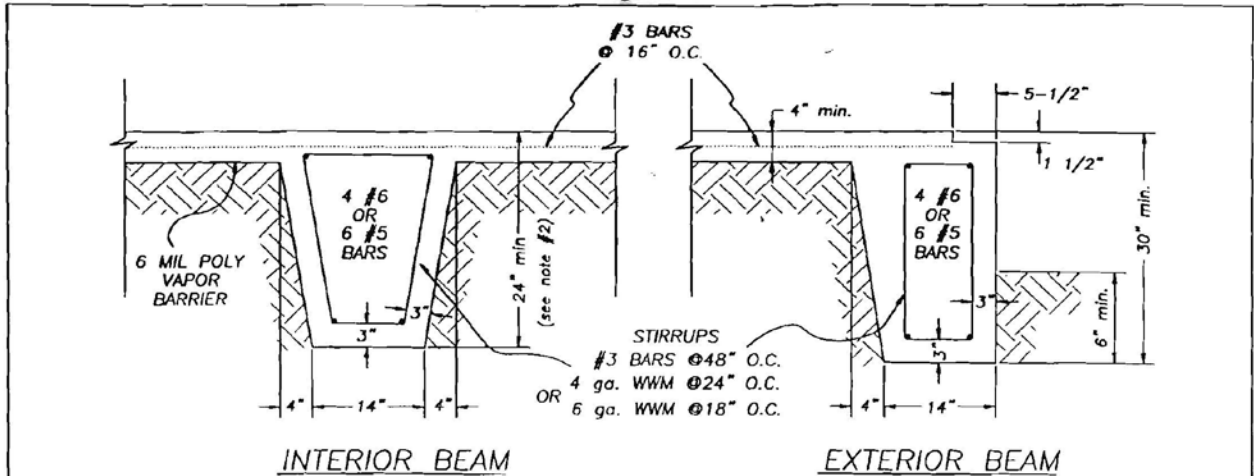
Section 907.5.2.3.1.1 (Employee work areas)

Where a fire alarm and detection system is required, employee work areas shall be provided with devices that provide audible and visible alarm notification.

- \*26. Section 912.2 (Location) is amended by adding the following:  
Section 912.2.3 (Distance) Fire department connection shall not be located further than 100 feet from the fire hydrant measured by lay of hose from the engine.
- 27. Section 1004.2 (Increased occupant load) is amended by deleting the section in its entirety.
- 28. Section 1004.3 (Posting of occupant load) is amended by adding the following text to the end of said section:  
  
“For the purposes of this section, the occupant load shall be the number of occupants computed at the rate of one occupant per unit of area as prescribed in Table 1004.1.2.”
- 29. Section 1612.3 (Establishment of flood hazard areas) is amended by inserting “Brazos County” for name of jurisdiction and “July 2, 1992 or February 9, 2000” for the date of issuance.
- 30. Section 1907 (Minimum slab provisions) is amended by adding Section 1907.2 to read as follows:

**“1907.2 Minimum foundation standard.** All slabs-on-grade with turned-down footings shall comply with the Minimum Foundation Standard as shown in figure 1.”

Figure 1



INTERIOR SLAB DROP

Bar Size	Min. Lap. Inches	Min. Radius of Bends
#3	12"	15/16"
#4	12"	1-1/4"
#5	15"	1-9/16"
#6	20"	2-1/4"
#7	26"	2-5/8"
#8	35"	3"

GENERAL NOTES:

- Exterior beam shall extend a minimum of 6 inches into undisturbed soil or fill which is compacted to 95% Standard Proctor (ASTM D 698) within (±) 2% of optimum moisture content. All fill material shall have a Plasticity Index (P.I.) between 5 and 18.
- Interior beams that exceed 60 ft. in length must be a min. of 30" deep.
- Maximum beam spacing shall be 15 feet and shall be continuous over the length or width of the foundation.
- Steel to be set to clear bare earth minimum 3", wood or steel forms by 1-1/2".
- Minimum concrete specified compression strength shall be 3000 psi @ 28 days.
- Masonry fireplace footings shall be a minimum of 30" deep with 2 mats of #5's @ 12" O.C. both ways.
- These minimum standards shall apply to all foundations.
  - A. Foundations for temporary buildings and permanent buildings not exceeding one story in height and 400 square feet in area.
  - B. Foundations designed by an Architect registered in the State of Texas or a civil/structural Engineer registered in the State of Texas and approved for use by the Building Official.
- All foundations designed by an Architect or Engineer shall be installed as designed. Revisions and exceptions must be submitted in writing by the Architect or Engineer and approved by the Building Official.
- Reinforcing steel shall be grade 60 (grade 40 allowed for stirrups only). All deformations shall meet ASTM A615.

REV.	DESCRIPTION	DATE	CITY OF COLLEGE STATION BUILDING DIVISION	
			MINIMUM FOUNDATION STANDARDS	
			SIZE A	PREPARED 9/98 SHEET 1 OF 1



## **2015 International Existing Building Code**

The *2015 International Existing Building Code* (IEBC) is a model code in the International Code family of codes intended to provide alternative approaches to repair, alteration and additions to existing buildings. It is necessary to regulate construction in existing buildings that undergo additions, alterations, extensive repairs or change of occupancy. Such activity represents an opportunity to ensure that new construction complies with the current building codes and that existing conditions are maintained, at a minimum, to their current level of compliance or are improved as required to meet basic safety levels. To accomplish this objective, and to make the alteration process easier, this code allows for options for controlled departure from full compliance with the International Codes dealing with new construction, while maintaining basic levels for fire prevention, structural and life safety features of the rehabilitated building.

- In previous code cycles, construction that will now be regulated by the IEBC, would have been regulated by Chapter 34 of the International Building Code.
- This code provides three main options for a designer in dealing with alterations of existing buildings.