

2018 Recommended Building Code with Amendments/Addendum

A **resolution** of the **Central Iowa Code Consortium** recommending adoption of the 2018 edition of the *International Building Code*, regulating and governing the conditions and maintenance of all property, buildings and structures; by providing the standards for supplied utilities and facilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use; and the condemnation of buildings and structures unfit for human occupancy and use and the demolition of such structures.

The **Executive Committee** of the **Central Iowa Code Consortium** does ordain as follows:

Section 1. That a certain document, being marked and designated as the *International Building Code*, 2018 edition, as published by the International Code Council, be and is hereby adopted as the Building Code of the participating communities of the **Central Iowa Code Consortium**, for regulating and governing the conditions and maintenance of all property, buildings and structures; by providing the standards for supplied utilities and facilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use; and the condemnation of buildings and structures unfit for human occupancy and use and the demolition of such structures as herein provided; providing for the issuance of permits and collection of fees therefor; and each and all of the regulations, provisions, penalties, conditions and terms of said Building Code are hereby referred to, adopted, and made a part hereof, as if fully set out in this legislation, with the additions, insertions, deletions and changes, if any, prescribed in Section 2 of this resolution.

Section 2. The following sections are hereby revised:

Section 101.1. Insert: **[NAME OF JURISDICTION]**

[Section 1612.3.](#) Insert: **[NAME OF JURISDICTION]**

[Section 1612.3.](#) Insert: **[DATE OF ISSUANCE]**

Delete Code Section: IBC 308.5.4

Replace with and add the following language:

308.5.4 Eight or fewer persons receiving care in a dwelling unit. Eight or fewer persons receiving care in a dwelling unit. A facility such as the above within a dwelling unit and having eight or fewer persons receiving custodial care shall be classified as a group R-3 occupancy or shall comply with the International Residential Code.

Exception: Day care facilities that provide custodial care for 16 or fewer persons for less than 24-hours per day in a single-family dwelling, and where registered with the State of Iowa Department of Human Services as child development homes on or before January 1, 2017, are permitted to comply with the International Residential Code.”

Delete Code Section: IBC 310.4.1

Replace with and add the following language:

310.4.1 Care facilities within a dwelling. Care facilities within a dwelling refer to 308.5.4.

Modify Code Section: IBC 403.3.2 (correlation: IFC 914.3.1.2)

Replace with the following language:

403.3.2 Water supply to required fire pumps. Required fire pumps shall be supplied by connections to a minimum of two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: Two connections to the same main shall be permitted provided the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through at least one of the connections.

Delete Code Section: IBC 419.1

Replace with the following language:

419.1 General. A *live/work unit* shall comply with Sections 419.1 through 419.9

Exceptions:

1. Dwelling or sleeping units that include an office that is less than 10 percent of the area of the *dwelling unit* are permitted to be classified as *dwelling units* with accessory occupancies in accordance with Section 508.2
2. Detached one- and two-family dwellings and townhouses that include an office that is less than 20 percent of the area of the dwelling unit and constructed in accordance with the International Residential Code are not required to comply with Sections 419.1 through 419.9.

Modify Code Section: IBC 419.1.1 Item #3

Delete and Replace with the following language:

3. The nonresidential area function shall be limited to floors of the *live/work unit* with exit at the 1st story or a basement walkout of the *live/work unit*.

Add Exception to Code Section: IBC 419.2

Add the following language (Exception #2):

2. *Live/work units* located within detached one- and two-family dwellings and townhouses may be constructed in accordance with the International Residential Code.

Delete Code Section: IBC 423.4 (including subsections 432.4.1 and 423.4.2)

Replace with and add the following language:

423.4 Group E occupancy. In areas where the shelter design wind speed for tornadoes in 250 mph in accordance with Figure 304.2 (1) of ICC 500, all Group E occupancies with a program occupant load of 50 or more shall have a storm shelter constructed in accordance with Chapters 1 through 5 & 8 of ICC 500.

The installation of portable buildings for utilization on the campus or site for educational purposes is considered new construction and classified as Group E occupancies.

Exceptions:

1. Group E day care facilities.
2. Group E occupancies accessory to place of religious worship.
3. Buildings meeting the requirements for shelter design in ICC 500.
4. Accessory structures to existing group E sites where the occupancy classification of said structures are classified as Groups A-5 and U

423.4.1 Required Occupant Capacity. The required occupant capacity of the storm shelter shall include all buildings classified as a Group E occupancy on the campus or site (whichever is larger) and shall be the greater of the following:

1. The total occupant load of the classrooms, vocational rooms and offices in the Group E occupancy.
2. The occupant load of any indoor assembly space that is associated with the Group E occupancy.

Exceptions:

1. Where a new building is being added on an existing Group E site, and where the new building is not of sufficient size to accommodate the required occupant capacity of the storm shelter for all of the buildings on-site, the storm shelter shall at a minimum accommodate the required capacity for the new building.
2. Where approved by the code official, the required occupant capacity of the shelter shall be permitted to be reduced by the occupant capacity of any existing storm shelters on the campus or site.

423.4.2 Location. Storm shelters shall be located within the buildings they serve, or shall be located where the maximum distance of travel from not fewer than one exterior door of each building to a door of the shelter serving that building does not exceed 1,000 feet.

IBC Section Replace with the following:

Delete Code Section: IBC 502.1

Replace with the following language:

502.1 Address identification.

New and existing buildings shall have *approved* address numbers, building numbers or *approved* building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall be black or white and shall contrast with their background. Where required by the *fire code official*, address numbers shall be provided in greater dimension or additional *approved* locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers and letters shall be a minimum height and a minimum stroke width as

dictated by Table 505.1. Where access is by means of a private road and the building cannot be viewed from the *public way*, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

Table 502.1
Minimum Height and Stroke Width^{a b}

Distance from the centerline of the Public Way (ft)		Minimum Height (in)	Minimum Stroke Width (in)
Less than 100		4	1/2
100	199	6	3/4
200	299	8	1
For each additional 100		Increase 2	Increase 1/2

^a Exterior suite identification, minimum height shall be 4 inches and stroke width shall be 1/2 inch.

^b Interior suite identification, minimum height shall be 2 inches and stroke width shall be 1/4 inch.

Add Exception to Code Section: IBC 707.5

Add the following language (Exception #3):

3. Shafts required to be constructed as per section 713.3.2 having exterior walls that are not required to be fire rated per section 707.4 shall be permitted to be constructed of materials permitted by the building type of construction so long as a complete non-combustible separation of 2 hours is provided between the shaft and adjoining structure. In addition, the provisions of section 1023.7 shall be met.

Delete Code Section: IBC 713.3

Replace with the following language:

713.3 Materials. Shaft enclosures shall be as described in Sections 713.3.1 and 713.3.2.

Add Code Section: IBC 713.3.1

Add the following language:

713.3.1 – 1 Hour Shafts. Shafts that are allowed to have a fire resistance rating of 1 hour or less are allowed to be constructed of materials permitted by the building type of construction.

Add Code Section: IBC 713.3.2

Add the following language:

713.3.2 – 2 Hour Shafts. Shafts that are required to have a fire resistance rating of 2 hours or more serving Interior exit stairs or Interior exit ramps shall be constructed of concrete or masonry. All other shafts that are required to have a fire resistance rating of 2 hours or more shall be constructed of non-combustible materials.

Insert New Code Section: IBC 902.1.1.1 (correlation: IFC 901.4.6.1.1)

Language:

902.1.1.1 Fire Sprinkler Riser Room.

A fire sprinkler riser room shall be separated from the electrical room. The riser room shall have no electrical panels, devices, or apparatus inside the room other than the outlets or support equipment (lighting, air compressor, and heater) required for the use of the fire sprinkler system and/or the fire alarm panel. The sprinkler riser room shall not be accessed from the electrical room, but the electrical room may be accessed from the fire riser room.

Insert New Code Section: IBC 903.1.2 (correlation: IFC 903.1.2)

Insert the following language:

903.1.2 Existing Buildings. For other than new construction or where current code contains retroactive provisions an automatic sprinkler system shall be provided pursuant to the building and fire codes in effect at the time of construction in accordance with provisions of the International Existing Building Code.

Modify Code Section: IBC 903.2 (correlation: IFC 903.2)

Replace with and add the following language:

903.2 Where required.

Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12

Exceptions:

1. Prior to July 1, 2016 any jurisdiction calculating fire areas by other methods not defined by the *International Fire Code* or *International Building Code*, may continue to utilize those methods in calculating fire sprinkler square footage requirements as previously established by local jurisdiction.
2. Prior to July 1, 2016 any jurisdiction requiring reduced fire areas or reduced occupant loads in determining the requirements for automatic sprinkler systems in Section 903.2.1 through 903.2.12 may continue to utilize these methods as previously established by local jurisdiction.
3. Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separate from the remainder of the building by not less than 1-hour *fire barriers* constructed in accordance with Section 707 of the *International Building Code* or not less than 2-hour horizontal assemblies constructed in accordance with Section 711 of the *International Building Code*, or both.

Delete Code Section: IBC 903.2.1.1 (correlation: IFC 903.2.1.1)

Replace with the following language:

903.2.1.1 Group A-1. An automatic sprinkler system shall be provided throughout stories containing Group A-1 occupancies and throughout all stories from the Group A-1 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 6,000 square feet (1115 m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. The fire area contains a multiple-theater complex.

Delete Code Section: IBC 903.2.1.2 (correlation: IFC 903.2.1.2)

Replace with the following language:

903.2.1.2 Group A-2. An automatic sprinkler system shall be provided throughout stories containing Group A-2 occupancies and throughout all stories from the Group A-2 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 1,500 square feet (1115 m²).
2. The fire area has an occupant load of 50 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. The fire area contains a multiple-theater complex.

Delete Code Section: IBC 903.2.1.3 (correlation: IFC 903.2.1.3)

Replace with the following language:

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided throughout stories containing Group A-3 occupancies and throughout all stories from the Group A-3 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 6,000 square feet (1115 m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Delete Code Section: IBC 903.2.1.4 (correlation: IFC 903.2.1.4)

Replace with the following language:

903.2.1.4 Group A-4. An automatic sprinkler system shall be provided throughout stories containing Group A-4 occupancies and throughout all stories from the Group A-4 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 6,000 square feet (1115 m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Delete Code Section: IBC 903.2.2 (correlation: IFC 903.2.2)

Replace with the following language:

903.2.2 Group B. An *automatic sprinkler system* shall be provided throughout buildings containing a Group B occupancy where one of the following conditions exists:

1. A Group B *fire area* exceeds 6,000 square feet (557.5 m²).
2. A Group B *fire area* is located more than three stories above grade plane.
3. The combined area of all Group B *fire areas* on all floors, including any mezzanines, exceeds 12,000 square feet (1115 m²).

Insert Code Section: IBC 903.2.2.1 (correlation: IFC 903.2.2.1)

Insert the following language:

903.2.2.1 Ambulatory care facilities. An automatic sprinkler system shall be installed throughout the entire floor containing an ambulatory care facility where either of the following conditions exist at any time:

1. Four or more care recipients are incapable of self-preservation.
2. One or more care recipients that are incapable of self-preservation are located at other than the level of exit discharge serving such a facility.

In buildings where ambulatory care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed throughout the entire floor as well as all floors below where such care is provided, and all floors between the level of ambulatory care and the nearest *level of exit discharge*, the *level of exit discharge*, and all floors below the *level of exit discharge*.

Exception: Floors classified as an open parking garage are not required to be sprinklered.

Delete Code Section: IBC 903.2.3 (correlation: IFC 903.2.3)

Replace with the following language:

903.2.3 Group E. An automatic sprinkler system shall be provided throughout stories containing Group E occupancies and throughout all stories from the Group E occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 1,500 square feet (1115 m²).
2. The fire area has an occupant load of 50 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Delete Code Section: IBC 903.2.4 (correlation: IFC 903.2.4)

Replace with the following language:

903.2.4 Group F-1. An *automatic sprinkler system* shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 *fire area* exceeds 6,000 square feet (557.5 m²).
2. A Group F-1 *fire area* is located more than three stories above grade plane.
3. The combined area of all Group F-1 *fire areas* on all floors, including any mezzanines, exceeds 12,000 square feet (1115 m²).
4. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

Delete Code Section: IBC 903.2.7 (correlation: IFC 903.2.7)

Replace with the following language:

903.2.7 Group M. An *automatic sprinkler system* shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. A Group M *fire area* exceeds 6,000 square feet (557.5 m²).
2. A Group M *fire area* is located more than three stories above grade plane.
3. The combined area of all Group M *fire areas* on all floors, including any mezzanines, exceeds 12,000 square feet (2230 m²).
4. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m²).

Delete Code Section: IBC 903.2.9 (correlation: IFC 903.2.9)

Replace with the following language:

903.2.9 Group S-1. An *automatic sprinkler system* shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 *fire area* exceeds 6,000 square feet (557.5 m²).
2. A Group S-1 *fire area* is located more than three stories above grade plane.
3. The combined area of all Group S-1 *fire areas* on all floors, including any mezzanines, exceeds 12,000 square feet (1115 m²).
4. A Group S-1 *fire area* used for the storage of commercial motor vehicles where the *fire area* exceeds 5,000 square feet (464 m²).
5. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

Modify Code Section: IBC 903.2.9 (correlation: IFC 903.2.9)

Insert the following language (adding a 6th condition):

6. A Group S-1 occupancy used for Self-Service Storage Facility (mini-storage) exceeds 6,000 square feet (557 m²).

Delete Code Section: IBC 903.2.9.1 (correlation: IFC 903.2.9.1)

Replace with the following language:

903.2.9.1 Repair garages. An *automatic sprinkler system* shall be provided throughout all buildings used as repair garages in accordance with Section 406.8 of the *International Building Code*, as shown:

1. Buildings having two or more stories above grade plane, including *basements*, with a *fire area* containing a repair garage exceeding 10,000 square feet (929 m²).
2. Buildings not more than one story above grade plane, with a *fire area* containing a repair garage exceeding 3,500 square feet (325 m²).
3. Buildings with repair garages servicing vehicles parked in *basements*.
4. A Group S-1 *fire area* used for the repair of commercial motor vehicles where the *fire area* exceeds 3,500 square feet (325 m²).

Modify Code Section: IBC 903.2.11.1.3 (correlation: IFC 903.2.11.1.3)

Replace with the following language:

903.2.11.1.3 Basements

Where any portion of a *basement* is located more than 75 feet (22 860 mm) from openings required by [Section 903.2.11.1](#), the *basement* shall be equipped throughout with an *approved automatic sprinkler system*.

Modify Code Section: IBC 903.3.1.2 (correlation: IFC 903.3.1.2)

Replace with the following language:

903.3.1.2 NFPA 13R sprinkler systems. *Automatic sprinkler systems* in Group R and I occupancies up to and including four stories in height in buildings not exceeding 60 feet (18 288 mm) in height above grade plane shall be installed throughout in accordance with NFPA 13, unless allowed to be sprinklered in accordance with NFPA 13D by the *International Building Code*. The number of stories of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 of the *International Building Code* shall be measured from the horizontal assembly creating separate buildings.

Modify Code Section: IBC 903.4.2 (correlation: IFC 903.4.2)

Replace with the following language:

903.4.2 Alarms.

An approved weather proof audible device suitable for outdoor use with 110 candela visual signal shall be connected to every automatic sprinkler system. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Alarm devices shall be provided on the exterior of the building in an approved location. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

Insert Code Section: IBC 905.3.9 (correlation: IFC 905.3.9)

Language:

905.3.9 Building Footprint and Access

Where the most remote portion of a floor or story is more than 400 feet from a hose connection or fire department access road the fire code official is authorized to require standpipes to be provided in *approved* locations. Class I manual standpipes shall be allowed.

Modify Code Section: IBC 907.2 (correlation: IFC 907.2)

Add the following exception:

3. Prior to July 1, 2016 any jurisdiction requiring reduced fire areas or reduced occupant loads in 907.2.1 through 907.2.23 may continue to utilize these methods as previously established by local jurisdiction determining the requirements for fire alarm systems in Section 907.2.1 through 907.2.23.

Insert Code Section: IBC 907.1.4 (correlation: IFC 907.1.4)

Language:

907.1.4 FACP (Fire Alarm Control Panels)

Each building shall have no more than 1 FACP.

Installation of fire alarm panel shall be not exceed six feet in height measured from the floor to the top of the unit.

Exception: Suppression system releasing panels are not required to meet the height requirement or the limitation in the number of panels.

Modify Code Section: IBC 907.6.6 (correlation: IFC 907.6.6)

Replace with the following language:

907.6.6 Monitoring

Fire alarm systems required by this chapter or by the International Building Code shall be monitored a central station approved and listed under UL 827 in accordance with NFPA 72.

Exception: Monitoring station is not required for:

1. Automatic sprinkler and fire alarm systems in one- and two- family dwellings.

Modify Code Section: IBC 910.2.1 (correlation: IFC 910.2.1)

Replace with the following language:

910.2.1 Group F-1 or S-1.

Smoke and heat vents installed in accordance with Section 910.3 or a mechanical smoke removal system installed in accordance with Section 910.4 shall be installed in buildings and portions thereof used as a Group F-1 or S-1 occupancy having more than **30,000** square feet (2787 m²) of undivided area. In occupied portions of a building equipped throughout with an automatic sprinkler system in accordance with 903.3.1.1, where the upper surface of the story is not a roof assembly, a mechanical smoke removal system in accordance with [Section 910.4](#) shall be installed.

Exception: Group S-1 aircraft repair hangars.

Modify Code Section: IBC 1008.3.3 (correlation: IFC 1008.3.3)

Replace with the following language:

1008.3.3 Rooms and spaces. In the event of a power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

1. Electrical equipment rooms
2. Fire command centers
3. Fire pump rooms
4. Generator rooms
5. Public restrooms that contain more than one water closet/urinal or that are accessible
6. Meeting/conference rooms with an area greater than 400 square feet.
7. Classrooms in an E occupancy with an area greater than 400 square feet.

Modify Code Section: IBC 1009.2 (correlation: IFC 1009.2)

Add Item # 11 with the following language:

11. Components of exterior walking surfaces shall be concrete, asphalt, or other approved hard surface.

Add Code Section: IBC 1010.1.6.1 (correlation: IFC 1010.1.6.1)

Insert the following language:

1010.1.6.1 Frost Protection. Landings required by Section 1010.1.5 to be at the same elevation on each side of the door exterior landings at doors shall be provided with frost protection.

Modify Code Section: IBC 1010.1.9.1 (correlation: IFC 1010.1.9.1)

Replace with the following language:

1010.1.9.1 Hardware. Door handles, pulls, latches, locks and other operating devices on doors required to be accessible by Chapter 11 of the International Building Code shall not require tight grasping, tight pinching or twisting of the wrist to operate. This includes thumb turn locks.

Insert Code Section: IBC 1013.1.1 (correlation: IFC 1013.1.1)

Language:

1013.1.1 Additional Exit Signs. Exit signs may be required at the discretion of the Code Official to clarify an exit or exit access.

Modify Code Section: IBC 1014.4 (correlation: IFC 1014.4)

Insert item # 6 with the following language:

6. Handrails within a dwelling unit or serving an individual dwelling unit of groups R-2 and R-3 shall be permitted to be interrupted at one location in a straight stair when the rail terminates into a wall or ledge and is offset and immediately continues.

Add Code Section: IBC 1015.9 (correlation: IFC 1015.9)

Insert the following language:

1015.9 Walking surfaces. A guard shall be provided along retaining walls where a finished walking surface such as sidewalks, patios, driveways, parking lots or similar is located on the top side of a retaining wall. The guard shall be installed along any portion of the wall measuring 30 inches or greater in height measured at any point within 36 inches horizontally to the edge of the open side. A guard shall not be required along portions of the retaining wall where the horizontal distance between the edge of the finished walking surface and the face of the wall is greater than 72 inches.

Insert Code Section: IBC 1028.5.1 (correlation: IFC 1028.5.1)

Language:

1028.5.1 Hard Surfaces. Components of exterior walking surfaces shall be concrete, asphalt, or other approved hard surface.

Insert Code Section: IBC 1030.4.3 (correlation: IFC 1030.4.3)

Language:

1030.4.3 Window wells drainage. All window wells shall be provided with approved drainage.

Modify Code Section: IBC 1301.1

Replace with the following language:

Section 1301.1 Scope. The provisions of the International Energy Code as currently adopted and amended by the Iowa State Building Code Bureau shall apply to all matters governing the design and construction of buildings for energy efficiency. Administration shall be as prescribed in chapter 1 of the currently State adoption of the IECC and these regulations shall be known as the [NAME OF JURISDICTION].

Central Iowa Code Consortium
Building Code



Modify Code Section: IBC 1608.2

Replace with the following language:

1608.2 Ground Snow Load. The ground snow load to be used in determining the design snow load for roofs is hereby established at 30 pounds per square foot. Subsequent increases or decreases shall be allowed as otherwise provided by code, except that the minimum allowable flat roof snow load may be reduced to not less than 80 percent of the ground snow load.

Final Recommendation