

ORDINANCE 1994

AN ORDINANCE AMENDING CHAPTER 175 BUILDING CODE, OF THE MUNICIPAL CODE OF THE CITY OF ANKENY, IOWA, BY ADOPTING THE 2018 INTERNATIONAL BUILDING CODE WITH AMENDMENTS

WHEREAS, the City Council of the City of Ankeny, Iowa desires to continue to protect life, safety and property through the adoption and enforcement of construction codes, and to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment and to provide safety to fire fighters and emergency responders during emergency operations;

WHEREAS, the Council now deems it appropriate to revise the Municipal Code by adopting the latest addition of the International Code Council Building Code.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ANKENY, IOWA:

1. That Chapter 175 of the Municipal Code of the City of Ankeny, Iowa, the Building Regulations be repealed and there be enacted in lieu thereof the following Chapter;

CHAPTER 175 BUILDING CODE

Section Number	Title	IBC Section
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175.02	Adoption of Building Code	
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175.35	Group R-4	907.2.24
175.36	Monitoring	907.6.6
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175.39	Landings at Doors	1010.1.6.1
175.40	Hardware	1010.1.9.1
175.41	Handrails (elevation/#risers)	1011.11
175.42	Additional Exit Signs	1013.1.1
175.43	Continuity (handrails)	1014.4 exc.#6
175.44	Access to a Public Way	1028.5.1
175.45	Operational Constraints	1030.1.1
175.46	Window Wells	1030.4.3
175.47	Energy Efficiency	Chapter 13
175.48	Vinyl Siding (weather-resistive barrier required)	1404.14.2
175.49	Ground Snow Loads	1608.2
175.50	Flood Loads	1612.1.1, 1612.1.2
175.51	Establishment of Flood Hazard Areas	1612.3
175.52	Special Inspections and Tests	1704.2
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175.54	Structural Wood	1705.11.1
175.55	Cold-Formed Steel Light-Frame Construction	1705.11.2
175.56	Foundation Walls For Conventional Light Frame Wood Construction	1807.1.5.1 & Table
175.57	Frost Protection	1809.5 exc.#4
175.58	Table 2902.1 footnote ‘e’	T2902.1
175.59	Small Occupancies	2902.6
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175.01 SHORT TITLE. This chapter shall be known as the Ankeny Building Code, and may be cited as such, and may be referred to herein as this chapter

175.02 ADOPTION OF BUILDING CODE. Pursuant to published notice as required by law, the *International Building Code 2018 Edition*, published by the International Code Council, Inc., is adopted in full except for such portions as may be hereinafter deleted, modified or amended.

175.03 AMENDMENTS, MODIFICATIONS, ADDITIONS AND DELETIONS. *The International Building Code, 2018 Edition* (hereinafter known as the IBC), is amended as hereinafter set out in Sections 175.04 through 175.60.

175.04 REFERENCED CODES - - CONFLICTS. The remaining sections in this chapter represent amendments to the requirements contained in the IBC. In the event requirements of this code conflict with applicable State and/or Federal requirements, the more stringent shall apply except that all references to flood hazard construction shall be coordinated in concurrence with Ankeny NFIP adoption dated 1-February-2019.

175.05 SECTION 101.1 - - TITLE. Section 101.1, Title, of the IBC, is hereby deleted and there is enacted in lieu thereof the following section:

Section 101.1 Title. These regulations shall be known as the Ankeny Building Code, hereinafter known as “this code.”

175.06 SECTION 101.4 AMENDED - - REFERENCED CODES. Section 101.4, Referenced Codes, of the IBC, is hereby amended by the following subsections:

Section 101.4.1 Gas. Strike ~~International~~ and insert in lieu thereof Ankeny.

Section 101.4.2 Mechanical. Strike ~~International~~ and insert in lieu thereof Ankeny.

Section 101.4.3 Plumbing. Strike ~~International~~ and insert in lieu thereof Ankeny.

Section 101.4.4 Property Maintenance. Strike ~~International Property Maintenance~~ and insert in lieu thereof Ankeny Property Maintenance and Housing.

Section 101.4.5 Fire Prevention. Strike ~~International~~ and insert in lieu thereof Ankeny.

Section 101.4.6 Energy. Strike ~~International~~ and insert in lieu thereof Ankeny.

Section 101.4.7 Existing Buildings. Strike ~~International~~ and insert in lieu thereof Ankeny.

175.07 SECTION 101.4.6 - - ENERGY. Section 101.4.6, Energy, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following section:

Section 101.4.6 Energy. The provisions of the International Energy Conservation 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 “this code” and these regulations shall be known as the Ankeny Energy Code. Construction or work for which a permit is required shall be subject to 3rd party inspections. The Building Official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability. Any portion that does not comply shall be corrected and such portion shall not be covered or concealed until authorized by the Building Official.

Section C401.2 Application. Section C401.2, Application, of the IECC, is hereby amended by adding the following exception:

Seasonal Structures. The following Seasonal type structures are exempt from meeting the provisions of the energy code.

1. Food service buildings that serve patrons at amusement parks, water parks and outdoor sporting facilities that contain operable exterior walls openings on one or more walls which equal at least 40% or more of the overall exterior wall space.
2. Restroom Facilities that serve amusement parks, water parks and outdoor sporting facilities.

These facilities are allowed to have heating and/or cooling equipment for the temporary comfort of patrons and employees during operating hours.

175.08 SECTION 102.6.3 ADDITION - - EXISTING CSST - BONDING REQUIRED. Section 102.6.3, Existing CSST - Bonding Required, of the IBC, is hereby established by adding the following section:

Section 102.6.3 Existing CSST - Bonding Required. Where alterations, repairs or additions requiring a permit occur, CSST shall be bonded in accordance with 310.2.1 through 310.2.5 of the Ankeny Fuel Gas Code, unless deemed technically infeasible by the Code Official.

175.09 SECTION 105.1 ADDITION - - (PERMITS) REQUIRED. Sections 105.1, Required, of the IBC, is hereby amended by adding the following to said sections:

Sections 105.1 Platting required. A building permit shall not be issued unless the land upon which the proposed work is to be done is platted pursuant to the provisions of the subdivision regulations.

A building permit shall not be issued permitting the construction of any building or other structure on any lot designated on any plat as an outlot, without such lot being replatted in accordance with the provisions of the subdivision regulations. Such platting may be waived by the city council if that body determines that no portion of the land is needed for public purposes or if that portion needed for public purposes, as determined by the council, is dedicated to the city; provided further, that such platting may be waived by the zoning administrator if the requested building permit is for one of the following purposes:

1. Any accessory structure or addition for a one or two family residence;
2. The removal, repair or alteration of a structure on unplatted premises, provided that there is no change in the use classifications of such structure;
3. The term "alteration" shall be deemed to mean any change or modification of a structure that does not serve to increase the size of the original structure by more than ten percent.

175.10 SECTION 105.2 AMENDED - - WORK EXEMPT FROM PERMIT.

Section 105.2, Work exempt from permit, of the IBC, is hereby amended by deleting the following items and adding a sentence to said sections as follows:

Section 105.2 Work Exempt From Permit

Section 105.2 Building - Item #1	Detached structures not exceeding 120 sq. ft.	Delete
Section 105.2 Building - Item #2	Fences not over 7 feet high	Delete
Section 105.2 Building - Item #6	Sidewalks and driveways	Delete
Section 105.2 Building - Item #9	Prefabricated swimming pools	Delete
Section 105.2 Building - Item #10	Shade cloth structures	Delete

Exemption from permit requirements of this chapter shall not preclude requirements for permitting of plumbing, electrical and mechanical installations and systems or compliance with Ankeny Code of Ordinances.

175.11 SECTION 105.5 AMENDED - - EXPIRATION. Section 105.5. Expiration, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following:

Section 105.5 Twelve Month Expiration Every permit issued under the provisions of this Code shall expire twelve (12) months from the date of issue, unless the application is accompanied by a construction schedule of specific longer duration, in which instance the permit may be issued for the term of the construction schedule, with approval of the Code Official. If the work has not been completed by the expiration date of the permit, no further work shall be done until the permit shall have been renewed by the owner or his or her agent and by payment of the renewal fee as established by Resolution of the City Council, and provided no changes have been made in plans or location. Upon approval, permits may be extended for no more than two periods not exceeding 180 days each.

175.12 SECTION 105.6.1 ADDITION - - REVOCATION OF PERMIT. Section 105.6.1 Revocation of Permit, of the IBC, is hereby established by adding the following sections:

Section 105.6.1 Revocation of Permit It is the responsibility of the permit holder to schedule the required inspections and obtain final approval. Failure to schedule the required inspections and receive approval of work authorized by the permit before covering said work or at completion shall result in revocation of the permit and void any associated approvals granted by the City. This failure shall also equate to working without a permit in violation of City ordinance and no future permits shall be issued to any person or company who has outstanding violations of this code or any other laws or ordinances of the City. Failure to contact the City for any inspection or follow-up prior to expiration of a permit shall be deemed a violation of this code section. Failure to contact the City for any inspection or follow-up prior to expiration of a Temporary Certificate of Occupancy shall also be deemed a violation of this code section. Allowing occupancy of a structure, for which a person or company holds a building permit, prior to or without a valid Certificate of Occupancy (temporary or final) shall be deemed a violation of this code section and no future permits shall be issued to any person or company who has outstanding violations of this code or any other laws or ordinances of the City.

175.13 SECTION 109.2.1 ADDITION - - PLAN REVIEW FEES. Sections 109.2.1, Plan review fees, of the IBC, is hereby established by adding the following sections:

Sections 109.2.1 Plan review fees Fees for all plan reviews shall be as set forth and established by resolution of the City Council. All such fees shall be paid in accordance with the terms and requirements of such resolution or as the same may be amended by the City Council from time to time.

175.14 SECTION 109.4 ADDITION - - WORK COMMENCING BEFORE PERMIT ISSUANCE. Sections 109.4, Work commencing before permit issuance, of the IBC, is hereby established by adding the following sentence after said sections:

Sections 109.4 Work commencing before permit issuance Said fee shall be 100 percent of the usual permit fee in addition to the required permit fees.

175.15 SECTIONS 111.2 - - CERTIFICATE ISSUED. Section 111.2, Certificate issued, of the IBC, is hereby amended by addition of the following paragraph:

Sections 111.2 Certificate issued Fees for all Final Occupancy Certificates shall be as set forth and established by resolution of the City Council. All such fees shall be paid in accordance with the terms and requirements of such resolution or as the same may be amended by the City Council from time to time.

175.16 SECTIONS 111.3 - - TEMPORARY OCCUPANCY. Section 111.3, Temporary Occupancy, of the IBC, is hereby amended by addition of the following paragraph:

Sections 111.2 Temporary Occupancy Fees for all Temporary Occupancy Certificates shall be as set forth and established by resolution of the City Council. All such fees shall be paid in accordance with the terms and requirements of such resolution or as the same may be amended by the City Council from time to time.

175.17 SECTION 112 ADDITION - - UNDERGROUND UTILITY INSTALLATION. Section 112.4, Service Utilities, of the IBC, is hereby established by adding the following sections:

Section 112.4 Underground utility installation All electrical service lines not exceeding four hundred eighty volts and all telephone and cablevision service lines, as well as other utility lines serving any new building or structure, including signs and billboards, requiring permanent electrical service shall be placed underground unless a waiver from such is approved by the city engineer.

The provisions of this section shall not apply to existing buildings or additions to such buildings. Nothing in this section shall be deemed to apply to temporary service when defined as such by the utility company.

175.18 SECTION 202 AMENDED - - DEFINITIONS. Section 202, Definitions, of the IBC, is hereby amended by deleting the definition of swimming pool and inserting in lieu thereof the following:

Section 202 Swimming Pool Any structure intended for swimming, recreational bathing or wading that is capable of containing water over 24 inches deep. This includes in-ground, above-ground and on-ground pools; hot tubs; spas and fixed-in-place wading pools, but excludes manmade lakes or ponds created through the collection of storm water or drainage runoff.

175.19 AMENDED - - FIVE OR FEWER CHILDREN IN A DWELLING UNIT. Section 305.2.3, Five Or Fewer Children In A Dwelling Unit, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following section and exception:

Section 305.2.3 Eight Or Fewer Children In A Dwelling Unit. A facility such as the above within a dwelling unit and having eight or fewer children receiving such day 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.

175.20 AMENDED - - CARE FACILITIES WITHIN A DWELLING UNIT. Section 310.4.1, Care Facilities Within A Dwelling Units, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following section:

Section 310.4.1 Care Facilities Within A Dwelling Unit. Care facilities within a dwelling unit shall be in accordance with section 305.2.3.

175.21 SECTION 406.3.2.1 AMENDED - - DWELLING UNIT SEPARATION. Section 406.3.2.1, Separation, of the IBC, is hereby amended by deleting section #1 and inserting in lieu thereof the following:

Section 406.3.2.1 Dwelling Unit Separation The private garage shall be separated from the dwelling unit and its attic area by means of minimum 5/8-inch type "X" fire code gypsum board or equivalent applied to the garage side. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than 5/8-inch type "X" fire code gypsum board or equivalent throughout. Garages beneath habitable rooms shall be separated by not less than 5/8-inch type "X" fire code gypsum

board or equivalent throughout. Door openings between a private garage and the dwelling unit shall be equipped with either solid wood doors or solid or honeycomb core steel doors not less than 1 3/8" thick, or doors in compliance with 716.5.3. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Doors shall be self-closing and self-latching.

175.22 AMENDED - - GENERAL. Section 419.1, General, of the IBC, is hereby amended by deleting the exception and inserting in lieu thereof the following 2 exceptions:

Section 419.1 General 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

175.23 AMENDED - - LIMITATIONS. Section 419.1.1, Limitations, of the IBC, is hereby amended by deleting item #3 and inserting in lieu thereof the following:

Section 419.1.1 Limitations

#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*.

175.24 AMENDED - - OCCUPANCIES. Section 419.2, Occupancies, of the IBC, is hereby amended by adding the following exception #2:

Section 419.2 Occupancies

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

175.25 SECTION 423.4 AMENDED - - GROUP E OCCUPANCY. Section 423.4, Group E Occupancy, of the IBC, is hereby amended by deleting said section and exceptions and inserting in lieu thereof the following:

Section 423.4 Group E Occupancy In areas where the shelter design wind speed for tornadoes is 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

175.26 SECTION 423.4.1 AMENDED - - REQUIRED OCCUPANT CAPACITY. Section 423.4.1, Required Occupant Capacity, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following (exceptions remain unchanged):

Section 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.

175.27 SECTION 502.1 AMENDED - - ADDRESS IDENTIFICATION. Section 502.1, Address Identification, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following section and table:

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. Numbers shall be a minimum height and a minimum stroke width as dictated by Table 502.1. 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 ½ inch.

^b Interior suite identification, minimum height shall be 2 inches and stroke width shall be ¼ inch.

175.28 SECTION 707.5 ADDITION - - CONTINUITY. Section 707.5, Continuity, of the IBC, is hereby amended by adding the following exception #3:

Section 707.5 Continuity exception

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.

175.29 SECTION 713.3 AMENDED - - Materials. Section 713.3, Materials, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following:

Section 713.3 Materials Shaft enclosures shall be constructed of materials as described in Sections 713.3.1 and 713.3.2

175.30 SECTION 713.3.1 ADDITION - - ONE-HOUR SHAFT ENCLOSURES. Section 713.3.1, One-Hour Shaft Enclosures, of the IBC, is hereby established by adding the following section:

Section 713.3.1 One-hour Shaft Enclosures 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.

175.31 SECTION 713.3.2 ADDITION - - TWO-HOUR SHAFT ENCLOSURES. Section 713.3.2, Two-Hour Shaft Enclosures, of the IBC, is hereby established by adding the following section:

Section 713.3.2 Two-Hour Shaft Enclosures 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 for types III, IV and V construction. Interior Exit Stairs or Interior Exit Ramps in type I and II construction and all other shafts that are required to have a fire resistance rating of 2 hours or more shall be constructed of non-combustible materials.

175.32 SECTION 903.2.11.1.3 AMENDED - - BASEMENTS. Section 903.2.11.1.3, Basements, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following:

Section 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*.

175.33 SECTION 903.4.2 AMENDED - - ALARMS. Section 903.4.2, Alarms, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following section:

Section 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.*

175.34 SECTION 907.1.4 ADDITION - - FACP (Fire Alarm Control Panels). Section 907.1.4, FACP) Fire Alarm Control Panels) is hereby established by adding the following section and exception:

Section 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.

175.35 SECTION 907.2.24 ADDITION - - GROUP R-4. Section 907.2.24, Group R-4, of the IBC, is hereby established by adding the following section:

Section 907.2.24 Group R-4 Fire alarm systems and smoke alarms shall be installed in Group R-4 occupancies as required in Sections 907.2.24.1 through 907.2.24.3.

907.2.24.1 Manual fire alarm system.

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-4 occupancies.

Exceptions:

1. A manual fire alarm system is not required in buildings not more than two stories in height where all individual sleeping units and contiguous attic and crawl spaces to those units are separated from each other and public or common areas by not less than 1-hour fire partitions and each individual sleeping unit has an exit directly to a public way, egress court or yard.
2. Manual fire alarm boxes are not required throughout the building where all of the following conditions are met:
 - 2.1. The building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
 - 2.2. The notification appliances will activate upon sprinkler water flow.
 - 2.3. Not fewer than one manual fire alarm box is installed at an approved location.
3. Manual fire alarm boxes in resident or patient sleeping areas shall not be required at exits where located at all nurses' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that the distances of travel required in Section 907.4.2.1 are not exceeded.

907.2.24.2 Automatic smoke detection system.

An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed in corridors, waiting areas open to corridors and habitable spaces other than sleeping units and kitchens.

Exceptions:

1. Smoke detection in habitable spaces is not required where the facility is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
2. An automatic smoke detection system is not required in buildings that do not have interior corridors serving sleeping units and where each sleeping unit has a means of egress door opening directly to an exit or to an exterior exit access that leads directly to an exit.

907.2.24.3 Smoke alarms.

Single and multiple station smoke alarms shall be installed in accordance with Section 907.2.10.

175.36 SECTION 907.6.6 AMENDED - - MONITORING. Section 907.6.6, Monitoring, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following section and exception:

Section 907.6.6 Monitoring Fire alarm systems required by this chapter or by the International Building Code shall be monitored by a central station approved and listed under UL 827 in accordance with NFPA 72.

Exception: Monitoring station is not required for automatic sprinkler and fire alarm systems in one- and two- family dwellings.

175.37 SECTION 1009.2 ADDITION - - CONTINUITY AND COMPONENTS. Section 1009.2, Continuity and Components, Of the IBC, is hereby amended by adding the following #11 to said section:

Section 1009.2 Continuity and Components #11 Components of exterior walking surfaces shall be concrete, asphalt or other approved hard surface.

175.38 SECTION 1009.8 ADDITION - - TWO-WAY COMMUNICATION. Section 1009.8, Two-way Communication, of the IBC, is hereby amended by adding the following exception:

Section 1009.8 exception 7 Two-way communication systems are not required for elevators that serve two story buildings designed to meet the provisions of section IBC 712.1.9, Two-story Openings and IBC 1019, Exit Access Stairways and Ramps.

175.39 SECTION 1010.1.6 ADDITION - - LANDINGS AT DOORS. Section 1010, Doors, Gates and Turnstiles, of the IBC, is hereby amended by adding the following section:

Section 1010.1.6.1 Landings at Doors For landings required by Section 1010.1.6 to be at the same elevation on each side of the door, exterior landings at doors shall be provided with frost protection.

175.40 SECTION 1010.1.9.1 ADDITION - - HARDWARE. Section 1010.1.9.1 is hereby amended by adding a new sentence following this section:

Section 1010.1.9.1 Hardware Thumb turn locks shall not be allowed.

175.41 SECTION 1011.11 AMENDED - - HANDRAILS. Section 1011.11, Handrails, of the IBC is hereby amended by deleting exception 4 and inserting in lieu thereof the following:

Section 1011.11 Handrails exception 4 Changes in elevation of four or more risers within individual units of Group R-2 and R-3 occupancies require a handrail on at least one side.

175.42 SECTION 1013.1.1 ADDITION - - ADDITIONAL EXIT SIGNS. Section 1013.1.1, Additional Exit Signs, of the IBC, is hereby established by adding the following section:

Section 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.

175.43 SECTION 1014.4 ADDITION - - (HANDRAIL) CONTINUITY. Section 1014.4, Continuity, of the IBC, is hereby amended by adding the following exception:

Section 1014.4 Continuity exception 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.

175.44 SECTION 1028.5 ADDITION - - ACCESS TO A PUBLIC WAY. Section 1028.5, Access to a Public Way, Of the IBC, is hereby amended by adding the following section:

Section 1028.5.1 Access to a Public Way Components of exterior walking surfaces shall be concrete, asphalt or other approved hard surface.

175.45 SECTION 1030.1.1 ADDITION - - OPERATIONAL CONSTRAINTS. Section 1030.1.1, Operational Constraints, of the IBC, is hereby amended by adding the following:

Section 1030.1.1 Operational constraints The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside and shall not require the removal of a sash or other component of the emergency escape and rescue opening.

175.46 SECTION 1030.4 - - WINDOW WELLS. Sections 1030.4, Window Wells, of the IBC, is hereby amended by adding the following section:

Sections 1030.4.3 Window well drainage Window wells shall be designed for proper drainage by connecting to the buildings foundation drainage system required by section 1805.4.2 or by an approved alternate method.

175.47 CHAPTER 13 ENERGY AMENDED - - ENERGY EFFICIENCY. Chapter 13, Energy Efficiency, of the IBC, is hereby amended by deleting said chapters and inserting in lieu thereof the following:

Chapter 13 Energy Efficiency 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 “this code” and these regulations shall be known as the Ankeny Energy Code.

175.48 SECTION 1404.14 ADDITION - - VINYL SIDING. Section 1404.14, Vinyl Siding, of the IBC, is hereby amended by adding a new section as follows:

Section 1404.14.2 Water-Resistive Barrier Required An approved water-resistive barrier shall be provided under all vinyl siding.

175.49 SECTION 1608.2 ADDITION - - GROUND SNOW LOADS. Section 1608.2, Ground Snow Loads, of the IBC, is hereby amended by adding the following sentence to said section:

Section 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.

175.50 SECTION 1612 AMENDED - - FLOOD LOADS. Section 1612, Flood Loads, of the IBC, is hereby amended by adding the following sections:

Section 1612.1.1 General Floodplain Construction Standards The following standards are established for construction occurring within the one-hundred-year flood elevation:

A. All structures shall:

1. Be adequately anchored to prevent flotation, collapse or lateral movement of the structure;
2. Be constructed with materials and utility equipment resistant to flood damage; and
3. Be constructed by methods and practices that minimize flood damage.

B. Residential buildings: All new or substantially improved residential structures shall have the lowest floor, including basement, elevated a minimum of one foot above the one-hundred-year flood level. Construction shall be upon compacted fill which shall, at all points, be no lower than one foot above the one-hundred-year flood level and extend at such elevation at least eighteen feet beyond the limits of any structure erected thereon. Alternate methods of elevating (such as piers) may be allowed, subject to favorable consideration by the Code Official where existing topography, street grades, or other factors preclude elevating by fill. In such cases, the methods used must be adequate to support the structure as well as withstand the various forces and hazards associated with flooding.

C. Nonresidential buildings: All new or substantially improved nonresidential buildings shall have the first floor (including basement) elevated a minimum of one foot above the one-hundred-year flood level, or together with attendant utility and sanitary systems, be floodproofed to such a level.

D. When floodproofing is utilized, a professional engineer registered in the State of Iowa shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the one-hundred-year flood; that the structure, below the one-hundred-year flood level, is watertight with walls substantially impermeable to the passage of water.

A record of the certification indicating the specific elevation (in relation to mean sea level) to which any structures are floodproofed shall be maintained by the Code Official.

E. Mobile homes shall be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors. Specific requirements are that:

1. Over-the-top ties be provided at each of the four corners of the mobile home with two additional ties per side at intermediate locations for mobile homes 50 feet or more in length or one such tie for mobile homes less than 50 feet in length;
2. Frame ties be provided at each corner of the home with five additional ties per side at intermediate points for mobile homes 50 feet in length;
3. All components of the anchoring system be capable of carrying a force of four thousand eight hundred pounds; and
4. Any additions to the mobile home be similarly anchored.

F. Mobile homes shall be placed on lots or pads elevated by means of compacted fill so that the lowest floor of the mobile home will be a minimum of one foot above the one-hundred-year flood level. In addition, the tie-down specification of Section 175.04.350 section E must be met and adequate surface drainage and access for a hauler must be provided.

G. New mobile homes, expansions to existing mobile homes and mobile home lots where the repair, reconstruction or improvement of the streets, utilities, and pads equals or exceeds fifty percent before the repair, reconstruction or improvement has commenced shall provide:

1. Lots or pads that have been elevated by means of compacted fill so that the lowest floor of mobile homes will be a minimum of one-foot above the one-hundred-year flood level;
2. Ground anchors for mobile homes.

H. Storage of materials and equipment that are flammable, explosive or injurious to human, animal or plant life is prohibited unless elevated a minimum of one foot above the one-hundred-year flood level. Other material and equipment must either be similarly elevated or:

1. Not be subject to major flood damage and be anchored to prevent movement due to flood waters; or
2. Be readily removable from the area within the time available after flood warning.

Section 1612.1.2 Special floodway standards.

The following standards are established for construction occurring within a designated floodway.

A. Structures, buildings and sanitary and utility systems, if permitted, shall meet the applicable general floodplain standards and shall be constructed or aligned to present the minimum possible resistance to flood flows.

B. Buildings, if permitted, shall have a low flood damage potential and shall not be for human habitation.

175.51 SECTION 1612.3 AMENDED - - ESTABLISHMENT OF FLOOD HAZARD AREAS.

Section 1612.3, Establishment of Flood Hazard Areas, of the IBC, is hereby amended by inserting the following:

Section 1612.3 Establishment of Flood Hazard Areas

Insert Jurisdiction: City of Ankeny

Insert Date: 1-Feb-19

175.52 SECTION 1704.2 AMENDED - - SPECIAL INSPECTIONS AND TESTS. Section 1704.2, Special Inspections and Tests, of the IBC, is hereby amended by deleting exceptions #1 and #3 and inserting in lieu thereof the following.

Section 1704.2 Special Inspections and Tests Where application is made to the Building Official for construction as specified in Section 105, the owner or the owner's authorized agent, other than the contractor, shall employ one or more approved agencies to provide special inspections and tests during construction on the types of work specified in Section 1705 and identify the approved agencies to the

Building Official. These special inspections and tests are in addition to the inspections by the Building Official that are identified in Section 110.

Exceptions:

1. Building that do not contain more than two dwelling units.
2. Unless otherwise required by the Building Official, special inspections and tests are not required for Group U occupancies that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.
3. Buildings not more than one-story above grade plane.
4. The contractor is permitted to employ the approved agencies where the contractor is also the owner.

175.53 SECTION 1705.11 AMENDED - - SPECIAL INSPECTIONS FOR WIND RESISTANCE.

Section 1705.11, Special Inspections for Wind Resistance, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following:

Section 1705.11 Special Inspections For Wind Resistance Special inspections for wind resistance specified in Sections 1705.11.1 through 1705.11.2, are required for buildings and structures.

175.54 SECTION 1705.11.1 AMENDED - - STRUCTURAL WOOD. Section 1705.11.1, Structural Wood, of the IBC, is hereby amended by deleting the exception:

Section 1705.11.1 Structural Wood Continuous special inspection is required during field gluing operations of elements of the main windforce-resisting system. Periodic special inspection is required for nailing, bolting, anchoring and other fastening of elements of the main windforce-resisting system, including exterior wall panels, wood shear walls, wood diaphragms, drag struts, braces and hold-downs.

175.55 SECTION 1705.11.2 AMENDED - - COLD-FORMED STEEL LIGHT-FRAMED CONSTRUCTION. Section 1705.11.2, Cold-Formed Steel Light-Frame Construction, of the IBC, is hereby amended by deleting the exception:

Section 1705.11.2 Cold-Formed Steel Light-Framed Construction Section 1705.11.2 Cold-formed steel light-frame construction.

Periodic special inspection is required for welding operations of elements of the main windforce-resisting system. Periodic special inspection is required for screw attachment, bolting, anchoring and other fastening of elements of the main windforce-resisting system, including exterior wall panels, shear walls, braces, diaphragms, collectors (drag struts) and hold-downs.

175.56 SECTION 1807.1.5.1 ADDITION - - FOUNDATION WALLS FOR CONVENTIONAL LIGHT FRAME WOOD CONSTRUCTION. Section 1807.1.5.1, Foundation Walls For Conventional Light Frame Wood Construction, of the IBC, is hereby established by adding the following sections and table:

Sections 1807.1.5.1 Foundation Walls For Conventional Light Frame Wood Construction As an alternate to the requirements of this code the following Table 'Foundation Walls for Conventional Light Frame Construction' may be used:

Table - 'Foundation Walls for Conventional Light Frame Construction'

Height of Foundation Wall (Net measured	Thickness of Foundation Walls	Reinforcement type and placement within	Reinforcement type and placement within Foundation Wall**	Type of Mortar
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from top of basement slab to top of foundation wall)*		<u>Unit</u>		Foundation Wall**	(maximum 12' span between corners and supporting cross walls.)	
<u>Gross</u>	<u>Net</u>	<u>Concrete</u>	<u>Masonry</u>	<u>Concrete</u>	<u>Masonry</u>	<u>Masonry</u>
<u>8</u>	<u>7' 8"</u>	<u>7 ½"</u>	<u>8"</u>	<u>½" horizontal bars, placement in the middle, and near the top & bottom – ½" bars @ 6' max. vertically</u>	0.075 square inch bar 8' o.c. vertically in fully grouted cells. If block is 12" nominal thickness, may be unreinforced.	Type M or S. Grout & Mortar shall meet provisions of Chapter 21 IBC
<u>9</u>	<u>8' 8"</u>	<u>8"</u>	<u>See Chapter 18 IBC</u>	<u>½" bars 2' o.c. horizontally & 20"</u>	See Chapter 18 IBC	Same as above
<u>10</u>	<u>9' 8"</u>	<u>8"</u>	<u>See Chapter 18 IBC</u>	<u>vertically o.c. (5/8" bars 2' o.c. horizontally & 30" vertically o.c.)</u>	See Chapter 18 IBC	Same as above
*Concrete floor slab to be nominal 4". If such floor slab is not provided prior to backfill, provide 1) 36" vertical #4 rebar embedded in the footing @ maximum 7' O.C. spacing -and/or- 2) full depth nominal 2" depth x 4" width keyway in footing						
** All reinforcement bars shall meet ASTM A6175 grade 40 minimum and be deformed. Placement of bars shall be in center of wall and meet the provisions of 18, 19, and 21 of the International Building Code.						
NOTE: Cast in place concrete shall have a compressive strength of 3,000 lbs @ 28 days. Footings shall contain continuous reinforcement of 2 – ½" diameter rebar throughout. Placement of reinforcement and concrete shall meet the requirements of Chapter 19 of the International Building Code.						
NOTE: Material used for backfilling shall be carefully placed granular soil of average or high permeability and shall be drained with an approved drainage system as prescribed in Section 1805.4 of the International Building Code. Where soils containing a high percentage of clay, fine silt or similar materials of low permeability or expansive soils are encountered or where backfill materials are not drained or an unusually high surcharge is to be placed adjacent to the wall, a specially designed wall shall be required.						
Note: Foundation plate or sill anchorage shall be installed in accordance with the respective codes as applicable.						

175.57 SECTION 1809.5 ADDITION - - FROST PROTECTION. Section 1809.5, Frost Protection, of the IBC, is hereby amended by adding the following exception 4:

Exception 4 Detached garages, accessory to Group R-2 and R-3 occupancies, 1,010 square feet or less in size and detached garages of 400 square feet or less in size of other than light frame wood construction and more than 10 feet from a dwelling or attached garage may be provided with a floating slab. The floating slab shall include a thickened slab edge of a minimum twelve (12) inches thick. Six inches of the thickened slab shall be below grade and six inches shall be above finished grade. The bottom portion of the thickened slab area shall be twelve (12) by twelve (12) inches. Two #4 rebar shall be placed within the thickened edge continuous around the perimeter of the slab. Floors shall be of Portland cement concrete not less than 4 inches thick. Garages areas shall have all sod and/or debris removed prior to installation of said floor.

175.58 TABLE 2902.1 AMENDED - - MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES. Table 2902.1 Minimum Number of Required Plumbing Fixtures, of the IBC, is hereby amended by deleting footnote 'e' and inserting in lieu thereof the following.

Footnote 'e' For business occupancies with an occupant load of not more than thirty (30) and mercantile occupancies with an occupant load of not more than one hundred (100), service sinks shall not be required.

175.59 SECTION 2902.6 AMENDED - - SMALL OCCUPANCIES. Section 2902.6, of the IBC, is hereby amended by deleting said section and inserting in lieu thereof the following:

Section 2902.6 Small Occupancies Water dispensers in accessible locations and within accessible reach ranges may be substituted for the initial drinking fountains in business occupancies with an occupant load of not more than thirty (30) and mercantile occupancies with an occupant load of not more than one hundred (100). (re: IBC chapter 11, IPC 410.2)

175.60 SECTION 3109.1 - - AMENDED - - GENERAL. Section 3109.1 General, of the IBC, is hereby amended by deleting said subsection and inserting in lieu thereof the following:

Section 3109.1 General The design and construction of swimming pools, spas and hot tubs shall comply with the Ankeny Swimming Pool and Spa Code.

2. Repeal. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

3. Effective date. This ordinance shall be effective March 1, 2020, after its final passage and publication as required by law.

PASSED AND APPROVED this 20th day of January, 2020.

Gary Lorenz, Mayor

ATTEST:

Denise L. Hoy, City Clerk

**PUBLISHED IN THE
DES MOINES REGISTER
ON THE 24TH DAY OF JANUARY, 2020**

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