ORDINANCE 2001

AN ORDINANCE ESTABLISHING CHAPTER 184 RESIDENTIAL CODE, OF THE MUNICIPAL CODE OF THE CITY OF ANKENY, IOWA, BY ADOPTING THE 2018 INTERNATIONAL RESIDENTIAL 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 Residential Code.

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

1. That Chapter 184 of the Municipal Code of the City of Ankeny, Iowa, the Residential Building Regulations be enacted in the following Chapter;

CHAPTER 184 RESIDENTIAL CODE

Section Numbe	Title	IRC Section
184.01	Short Title	
184.02	Adoption of Building Code	
184.03	Amendments, modifications, additions and deletions	
184.04	Referenced Codes -- Conflicts	
184.05	Title	R101.1
184.06	Energy	R101.3.1
184.07	Required (permits) Platting	R105.1
184.08	Work exempt from permit	R105.2
184.09	Expiration	R105.5
184.10	Revocation of Permit	R105.6.1
184.11	Plan Review Fees	R108.2.1
184.12	Work Commencing Before Permit Issuance	R108.6
184.13	Use & Occupancy (fee)	R110.1
184.14	Temporary Occupancy (fee)	R110.4
184.15	Underground Utility Installation	R111.4
184.16	Definitions	R202
184.17	Climatic and Geographic Design Criteria	Table R301.2(4)A
184.18	Exterior Walls	R302.1
184.19	Exterior Walls	Table R302.1(1)

184.20	**Two-Family Dwellings**	**R302.3**
184.21	**Dwelling/Garage Fire Separation**	**R302.6**
184.22	**Dwelling/Garage Separation**	**Table R302.6**
184.23	**Fire Protection of Floors (effective January 1, 2018)**	**R302.13**
184.24	**Bathrooms (Exhaust)**	**R303.3**
184.25	**Basements Ceiling Height - Existing**	**R305.1.1**
184.26	**Glazing Adjacent To Doors**	**R308.4.2**
184.27	**Operational Constraints**	**R310.1.1**
184.28	**Window Sill Height**	**R310.2.2**
184.29	**Emergency Escape Windows Under Decks & Porches**	**R310.2.4**
184.30	**Alterations or Repairs of Existing Basements**	**R310.6**
184.31	**Floor Elevations For Other Exterior Doors**	**R311.3.2**
184.32	**Risers**	**R311.7.5.1**
184.33	**Continuity**	**R311.7.8.2**
184.34	**Townhouse Automatic Fire Sprinklers Systems**	**R313.1**
184.35	**Automatic Fire Sprinkler Systems One & Two Family excep**	**R313.2**
184.36	**Footings - Minimum Size**	**R403.1.1 & T R403.1(4)**
184.37	**Frost Protection**	**R403.1.4.1**
184.38	**Foundation Walls – lateral support**	**R404.1**
184.39	**Foundation Walls For Conventional Light Frame Wood Construction**	**R404.1.3.2.3 & Table**
184.40	**Foundation Drainage – sump pumps**	**R405.3**
184.41	**Reinforcement Support**	**R506.2.4**
184.42	**Existing CSST – Bonding Required**	**G2411.2 (310.2)**
184.43	**Corrugated Stainless Steel Tubing**	**G2414.5.4 (403.5.4)**
184.44	**CSST**	**G2415.2 (404.2)**
184.45	**Freezing**	**P2603.5**
184.46	**Sewer Depth**	**P2603.5.1**
184.47	**Energy Efficiency**	**Chapter 11 [RE]**

184.01 SHORT TITLE. This chapter shall be known as the Ankeny Residential Code, and may be cited as such, and may be referred to herein as this chapter

184.02 ADOPTION OF BUILDING CODE. Pursuant to published notice as required by law, the *International Residential 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.

184.03 AMENDMENTS, MODIFICATIONS, ADDITIONS AND DELETIONS. *The International Residential Code, 2018 Edition* (hereinafter known as the IRC), are amended as hereinafter set out in Sections 184.04 through 184.47.

184.04 REFERENCED CODES - - CONFLICTS. The remaining sections in this chapter represent amendments to the requirements contained in the IRC. 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.

184.05 SECTION R101.1 AMENDED - - TITLE. Section R101.1, Title, of the IRC, is hereby deleted and there is enacted in lieu thereof the following section:

Section R 101.1 Title. These provisions shall be known as the Ankeny Residential Code for One- and Two – Family Dwellings, and shall be cited as such and will be referred to herein as "this code."

184.06 SECTION R101.3.1 ADDITION - - ENERGY. Section R101.3.1, Intent, of the IRC, is hereby established by adding the following section:

Section R101.3.1 Intent. 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.

184.07 SECTION R105.1 ADDITION - - (PERMITS) REQUIRED. Sections 105.1, Required, of the IRC, is hereby amended by adding the following to said section:

R105.1 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.

184.08 SECTION R105.2 AMENDED - - WORK EXEMPT FROM PERMIT.
Section R105.2, Work exempt from permit, of the IRC is hereby amended by deleting the following items and adding a sentence to said sections as follows:

R105.2 Work Exempt From Permit

Section R105.2 Building - Item #1	Detached structures not exceeding 200 sq. ft.	Delete
Section R105.2 Building - Item # 2	Fences not over 7 feet high	Delete
Section R105.2 Building - Item #5	Sidewalks and driveways	Delete
Section R105.2 Building - Item #7	Prefabricated swimming pools	Delete
Section R105.2 Building - Item #10	Decks not exceeding 200 sq. ft.	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.

184.09 SECTION R105.5 AMENDED - - EXPIRATION. Section 105.5. Expiration of the IRC, is hereby amended by deleting said section and inserting in lieu thereof the following:

Section R105.5 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.

184.10 SECTION R105.6.1 ADDITION - - REVOCATION OF PERMIT. Section R105.6.1, Revocation of Permit, of the IRC, is hereby established by adding the following section:

Section R105.6.1 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.

184.11 SECTION R108.2.1 ADDITION - - PLAN REVIEW FEES. Section R108.2.1, Plan review fees, of the IRC, is hereby established by adding the following section:

Section R108.2.1 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.

184.12 SECTION R108.6 ADDITION - - WORK COMMENCING BEFORE PERMIT ISSUANCE. Section R108.6, Work commencing before permit issuance, of the IRC, is hereby established by adding the following sentence after said section:

Section R108.6 Work commencing before permit issuance Said fee shall be 100 percent of the usual permit fee in addition to the required permit fees.

184.13 SECTION R110.1 AMENDED - - USE AND OCCUPANCY. R110.1, Use and occupancy, of the IRC, is hereby amended by addition of the following paragraph and by deleting exception #2.

Section R110.1 Use and occupancy

Sections R110.1 Use and Occupancy 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.

184.14 SECTION R110.4 AMENDED - - TEMPORARY OCCUPANCY. R110.4, Temporary occupancy, of the IRC, is hereby amended by addition of the following paragraph:

Section R110.4 Temporary occupancy

Sections R110.4 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.

184.15 SECTION R111 ADDITION - - UNDERGROUND UTILITY INSTALLATION. Section R111.4, Service Utilities, of the IRC, is hereby established by adding the following sections:

Sections R111.4 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.

184.16 SECTION R202 AMENDED - - DEFINITIONS. Section R202 Definitions, of the IRC, is hereby amended by deleting the definition of accessory structure and swimming pool and inserting in lieu thereof the following:

Section R202 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.

Section R202 Accessory Structure Accessory structures shall be defined as and shall conform to applicable zoning requirements and shall include but not be limited to structures and equipment with a fixed location on the ground, including wind energy systems, generators and equipment shelters.

184.17 TABLE R301.2(4)A AMENDED - - CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA. Table R301.2(1), Climatic and Geographic Design Criteria, of the IRC, is hereby amended by modifying said table and adding footnote * as follows :

Table R301.2(1), Climatic and Geographic Design Criteria

Ground Snow Load	Wind Design				Seismic Design Category	Subject To Damage From			Winter		Flood Hazards		
	Speed MPH	Topo Effects	Special Wind	Wind Debris		Weathering	Frost Line Depth	Termite	Design Temp	Ice Barrier Req'd.	NFIP Adoption	Air Freezing Index	Mean Annual Temp.
*30 psf	115 (51)	No	No	No	A	Severe	42"	No	- 5º F	Yes	1-Feb-19	1833	48.6
See Manual J for HVAC Design Criteria													

* minimum flat roof snow load 24 PSF

184.18 SECTION R302.1 AMENDED - - EXTERIOR WALLS. Section R302.1, Exterior walls, of the IRC, is hereby amended by deleting all exceptions and inserting in lieu thereof the following exception:

Section R302.1 Exterior walls exception #1 Accessory buildings including detached garages less than six feet (6') from a dwelling and/or less than 3 feet from a property line shall be provided with 5/8" "X" fire code sheetrock or equivalent throughout the interior, including the walls and ceiling. Any accessory

structure opening(s) in wall(s) parallel to and less than six feet (6') from dwelling unit wall(s) shall be fire rated in accordance with this code.

184.19 SUBSECTION TABLE R302.1(1) AMENDED - - EXTERIOR WALLS. Table R302.1(1), Exterior Walls, of the IRC, is hereby amended by modifying said table as follows:

Exterior Wall Element		Minimum Fire-Resistance Rating	Minimum Fire Separation Distance
Walls	(Fire-resistance rated)	1 hour—tested in accordance with ASTM E119, UL 263 or Section 703.3 of the International Building Code with exposure from both sides	< 5 feet
	(Not fire-resistance rated)	0 hours	≥ 5 feet
Projections	(Fire-resistance rated)	1 hour on the underside	< 3 feet
	(Not fire-resistance rated)	0 hours	≥ 3 feet
Openings	Not allowed	N/A	< 3 feet
	25% Maximum Wall Area	0 hours	≥ 3 feet
	Unlimited	0 hours	≥ 5 feet
Penetrations	All	Comply with Section R302.4	< 3 feet
		None required	≥ 3 feet

184.20 R302.3 AMENDED - - TWO-FAMILY DWELLINGS. Section R302.3 Two-family dwellings, of the IRC, is hereby amended by deleting said section and exceptions and inserting in lieu thereof the following section:

R302.3 Two-family dwellings For purposes of fire-resistive separation, two-family dwelling units shall be considered as townhouses and shall be constructed in accordance with R302.2

184.21 SECTION R302.6 AMENDED - - DWELLING/GARAGE FIRE SEPARATION. Section R302.6, Dwelling/garage fire separation, of the IRC, is hereby amended by deleting said section and inserting in lieu thereof the following section:

Section R302.6 Dwelling/garage fire separation The garage shall be separated throughout as required by Table R302.6. Openings in garage walls shall comply with section R302.5.

184.22 SECTION TABLE R302.6 AMENDED - - DWELLING/GARAGE SEPARATION. Table R302.6 Dwelling/Garage Separation, of the IRC, is hereby amended by modifying said table as follows:

Table R302.6, Dwelling/garage separation

Separation	Material
From the residence & attics – common wall with garage	5/8" "X" fire code sheetrock or equivalent applied to the garage side
From all habitable rooms above the garage	5/8" "X" fire code sheetrock or equivalent – throughout garage
Structures supporting floor/ceiling assemblies used for separation required by this section	5/8" "X" fire code sheetrock or equivalent – throughout garage
Detached garages located less than six feet (6') from a dwelling unit(s) on the same lot	5/8" "X" fire code sheetrock or equivalent – throughout garage

184.23 AMENDED - - FIRE PROTECTION OF FLOORS. Section R302.13, Fire Protection of Floors, of the IRC, is hereby amended by deleting exception 4 and inserting in lieu thereof the following:

Section R302.13 exception 4 Approved floor assemblies demonstrating equivalent fire performance by an approved testing company showing length and time duration for exposure to fire. It shall be defined by performance equivalent to 26 minutes using ASTM E119 standard fire endurance testing with a superimposed load simulating a maximum load condition (i.e. 100% design load).

184.24 SECTION R303.3 AMENDED - - BATHROOMS. Section R303.3, Bathrooms, of the IRC, is hereby amended by deleting said section and inserting in lieu thereof the following section and also by adding the following exception:

Section R303.3 Bathrooms Bathrooms shall be provided with a mechanical ventilation system. The minimum ventilation rates shall be 50 cfm for intermittent ventilation or 20 cfm for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside.

Exception: Toilet rooms containing only a water closet and/or lavatory may be provided with a recirculating fan.

184.25 SECTION R305.1.1 AMENDED - - BASEMENTS. Section R305.1.1, Basements, of the IRC, is amended deleting the exception and inserting in lieu thereof:

Section R305.1.1 exception Existing basements not having a height as specified in this section are allowed to be finished with a ceiling height that is not decreased more than the minimal measurement created by applying a finished ceiling of gypsum board or acoustical ceiling tiles.

184.26 SECTION R308.4.2 AMENDED- - GLAZING ADJACENT TO DOORS. Section R308.4.2, Glazing Adjacent To Doors, of the IRC, is hereby amended by deleting said section and items #1 and #2 and inserting in lieu thereof the following (exceptions remain unchanged):

Section R308.4.2 Glazing Adjacent To Doors Glazing in an individual fixed or operable panel adjacent to a door where the nearest vertical edge of the glazing is within a 24-inch (610 mm) arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the walking surface shall be considered to be a hazardous location.

184.27 SECTION R310.1.1 ADDITION - - OPERATIONAL CONSTRAINTS. Section R310.1.1, Operational constraints, of the IRC, is hereby amended by adding the following:

Section R310.1.1 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.

184.28 SECTION R310.2.2 ADDITION - - WINDOW SILL HEIGHT. Section R310.2.2 of the IRC, is hereby amended by adding the following exception:

Section R310.2.2 exception A landing may be provided to meet the maximum sill height of forty-four (44) inches above the floor or landing provided. The landing shall be not less than thirty-six (36) inches wide, not less than twelve (12) inches out from the exterior wall, and not more than twenty-four (24) inches in height. The landing shall be permanently affixed to the floor below or the wall under the window it serves.

184.29 SECTION R310.2.4 AMENDED - - EMERGENCY ESCAPE WINDOWS UNDER DECKS AND PORCHES. Section R310.4, Emergency escape windows under decks and porches, of the IRC, is hereby amended by adding a new sentence following this section:

Section R310.4 Emergency escape windows under decks and porches Cantilever areas of all construction elements shall be regulated in accordance with this section.

184.30 SECTION R310.6 AMENDED - - ALTERATIONS OR REPAIRS OF EXISTING BASEMENTS. Section R310.6 Alterations or Repairs of Existing Basements, of the IRC, is hereby amended by deleting the exception and inserting in lieu thereof the following:

Section R310.6 Alterations or Repairs of Existing Basements Exception: New habitable spaces created in an existing basement shall be provided with emergency escape and rescue openings in accordance with Section R310.1.

184.31 SECTION R311.3.2 AMENDED - - FLOOR ELEVATIONS FOR OTHER EXTERIOR DOORS. Section R311.3.2 Floor Elevations For Other Exterior Doors of the IRC is amended by deleting the exception and inserting in lieu thereof:

Section R311.3.2 exception A top landing is not required where a stairway of not more than four risers is located on the exterior side of a door, provided the door does not swing over the stairway.

184.32 SECTION R311.7.5.1 AMENDED - - RISERS. Section R311.7.5.1, Riser height, of the IRC, is hereby amended by adding the following exceptions:

Section R311.7.5.1 Riser height exception 3 The maximum riser height shall be 7 3/4 inches. The riser height shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch, except at the top or bottom riser of any interior stair where this dimension may deviate by a maximum of 1 inch. In no case shall the risers exceed the maximum height of 7 3/4 inches.

Section R311.7.5.1 Profile exception 4 The opening between adjacent treads is not limited on exterior stairs serving individual dwelling units.

184.33 SECTION R311.7.8.2 ADDITION - - CONTINUITY. Section R311.7.8.2, Continuity, of the IRC, is hereby amended by adding the following exception:

Section R311.7.8.2 Continuity exception 3 Handrails within a dwelling unit or serving an individual dwelling unit 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.

184.34 SECTION R313.1 AMENDED - - TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS. Section R313.1 Townhouse automatic fire sprinkler system, of the IRC, is hereby amended by adding the following exceptions (existing exception 1 remains unchanged):

Section R313.1 Townhouse automatic fire sprinkler systems. Exceptions:

2. An automatic residential fire sprinkler system shall not be required where *additions* or *alterations* are made to existing *townhouses* that do not have an automatic residential fire sprinkler system installed.
3. Townhouse structures that contain eight (8) or less dwelling units.
4. Townhouse structures less than eighteen thousand (18,000) square feet floor space, exclusive of any garages.

184.35 SECTION R313.2 AMENDED - - ONE- AND TWO-FAMILY DWELLINGS AUTOMATIC FIRE SYSTEMS. Section R313.2 One- and two-family automatic fire sprinkler systems, of the IRC, is hereby amended by adding the following exception:

Section R313.2 One- and two-family automatic fire sprinkler systems exception 2 Dwelling units in which the gross square footage of the dwelling space(s), including all floor levels whether finished or unfinished and all basement areas whether finished or unfinished (exclusive of attached garage area), does not exceed 8,000 square feet.

184.36 SECTION R403.1.1 - - ADDITION - - MINIMUM SIZE (FOOTINGS). Section R403.1.1, Minimum Size, of the IRC, is hereby amended by adding the following Table R403.1(4)**:**

For purposes of sizing and construction of footings for residential conventionally light-framed construction with cast-in-place or fully grouted masonry foundation wall construction, constructed upon undisturbed, non-expansive soils, the following table and footnotes may be used in lieu of table R403.1(1)

Table R403.1(4)

Number Stories	Foundation Wall Thickness		Minimum Footing Thickness (inches)	Minimum Footing Width(inches)	Minimum Continuous Reinforcement (rebar)
	Concrete	Masonry			
1	8	8	8	16	2 - #4
2	8	8	8	16	2 - #4
Demising Walls	8	8	8	18	2 - #4
3	10	10	12	22	3 - #4
Demising Walls	10	10	8	22	3- #4

a. assumed soil bearing capacity 2000 psf
b. foundations placed upon areas of poor bearing or expansive soils shall be engineered
c. footings carrying point loads shall be engineered
d. foundations may support a roof in addition to the stipulated number of floors
e. foundations supporting a roof only shall be as required for supporting one floor
f. reinforcing shall be evenly spaced with proper overlaps
g. perimeter footings shall be minimum 42" below surrounding grade within 5' horizontally of foundation

184.37 SECTION R403.1.4.1 - - AMENDED - - FROST PROTECTION. Section R403.1.4.1, Frost Protection, of the IRC, is hereby amended by deleting existing exceptions #1, #2 and #3 and inserting the following exception #1 and exception #2:

Section R403.1.4.1 Frost protection exception 1 Detached garages of light frame wood construction of 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 not located entirely within the buildable area of the lot 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.

Section R403.1.4.1 Frost protection exception 2 Decks not supported by a dwelling and not greater than thirty inches (30") above grade plane need not be provided with footings that extend below the frost line.

184.38 SECTION R404.1 AMENDED - - CONCRETE AND MASONRY FOUNDATION WALLS. Section R404.1, Concrete and masonry foundation walls, of the IRC, is hereby amended by adding the following paragraph:

Section R404.1 Concrete and masonry foundation walls lateral support Prior to backfill and prior to a poured in place floor slab to provide bottom lateral support the following may be provided (1) a full depth (minimum 1-1/2") nominal 2" x 4" keyway may be formed into the footings to secure the bottom of the foundation wall -or- (2) 36" long vertical # 4 rebar may be embedded a minimum of 6" into the footings not to exceed 7' o.c. spacing

184.39 SECTION R404.1.3.2.3 ADDITION - - FOUNDATION WALLS FOR CONVENTIONAL LIGHT FRAME WOOD CONSTRUCTION. Section R404.1.3.2.3, Foundation Walls For Conventional Light Frame Wood Construction, of the IRC, are hereby established by adding the following sections and table:

Section R404.1.3.2.3 Foundation Walls For Conventional Light Frame Wood Construction As an alternate to the requirements of respective codes 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 from top of basement slab to top of foundation wall)*		Thickness of Foundation Walls		Reinforcement type and placement within Foundation Wall**	Reinforcement type and placement within Foundation Wall** (maximum 12' span between corners and supporting cross walls.)	Type of Mortar
		Unit				
Gross	Net	Concrete	Masonry	Concrete	Masonry	Masonry
8	7' 8"	7 ½"	8"	½"horizontal bars, placement in the middle, and near the top & bottom – ½" bars @ 6' max. vertically	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
9	8' 8"	8"	See Chapter 18 IBC	½" bars 2' o.c. horizontally & 20" vertically o.c. (5/8" bars 2' o.c. horizontally & 30" vertically o.c.)	See Chapter 18 IBC	Same as above
10	9' 8"	8"	See Chapter 18 IBC		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 A6184 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.						

184.40 SECTION R405 ADDITION - - FOUNDATION DRAINAGE. Section R405, Foundation Drainage, of the IRC, is hereby amended by adding a new section as follows:

Section R405.3 Sump Pumps Footing drains and drainage systems shall be discharged to a sump pump plumbed to a discharge system separated from the sanitary sewer and in accordance with the standard specifications adopted by the City Council. Exceptions may be granted by the Code Official in accordance with said engineering standards based on local conditions as determined by the Ankeny Public Works Department/Development Engineering Division or Storm Water Coordinator.

184.41 SECTION R506.2.4 ADDITION - - REINFORCEMENT SUPPORT. Section R506.2.4, of the IRC, Reinforcement support is hereby amended by addition of the following exception:

Section R506.2.4 Reinforcement support exception 1 Non-structural slabs

184.42 SECTION G2411.2 (310.2) AMENDED - - EXISTING CSST – BONDING REQUIRED. Section G2411.2 (310.2) CSST, of the IRC, is hereby amended by deleting said section (not including subsections) and inserting in lieu thereof the following:

Section G2411.2 (310.2) 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.

184.43 SECTION G2414.5.4 (403.5.5) AMENDED - - CORRUGATED STAINLESS STEEL TUBING. Section G2414.5.3 (403.5.4) Corrugated Stainless Steel Tubing, of the IRC, is hereby amended by deleting said section and inserting in lieu thereof the following:

Section G2414.5.3 (403.5.4) Corrugated Stainless Steel Tubing Arc resistant corrugated stainless steel tubing shall be listed in accordance with ANSI LC 1 (Optional Section 5.16)/CSA 6.26.

184.44 SECTION G2415.2 (404.2) AMENDED - - CSST. Section G2415.2 (404.2) CSST, of the IRC, is hereby amended by deleting said section and inserting in lieu thereof the following:

Section G2415.2 (404.2) CSST. Only CSST with an Arc Resistant Jacket or Covering System listed in accordance with ANSI LC-1 (Optional Section 5.16)/CSA 6.26-2016 shall be installed in accordance with the terms of its approval, the conditions of listing, the manufactures instructions and this code including electrical bonding requirements in Section G2411. CSST shall not be used for through wall penetrations from the point of delivery of the gas supply to the inside of the structure. CSST shall not be installed in locations where subject to physical damage unless protected in an approved manner.

184.45 SECTION P2603.5 AMENDED - - FREEZING. Section P2603.5 Freezing, of the IRC, is hereby amended by deleting the last sentence of said section and inserting in lieu thereof the following:

Section P2603.5 Freezing Exterior water supply system piping shall be installed not less than sixty (60) inches below grade.

184.46 SECTION P2603.5.1 AMENDED - - SEWER DEPTH. Section P2603.5.1 Sewer Depth, of the IRC, is hereby amended by deleting said section and inserting in lieu thereof the following:

Section P2603.5.1 Sewer Depth Building sewers shall be a minimum of forty-eight (48) inches below grade.

184.47 CHAPTER 11 [RE] AMENDED - - ENERGY EFFICIENCY. Chapter 11 [RE], Energy Efficiency, of the IRC, ais hereby amended by deleting said chapter and inserting in lieu thereof the following:

Chapter 11 (IRC). 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.

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

1st Con 1/6/20
2nd Con 1/20/20
3rd Con 1/20/20