

AN ORDINANCE TO REPEAL CHAPTER 222 OF THE MUNICIPAL CODE OF THE CITY OF WAUKEE, IOWA AND TO ADOPT BY REFERENCE THE 2018 EDITION OF THE INTERNATIONAL CODES (I-CODES™) AND MORE SPECIFICALLY THE INTERNATIONAL BUILDING CODE, THE INTERNATIONAL RESIDENTIAL CODE, THE INTERNATIONAL EXISTING BUILDING CODE, THE INTERNATIONAL FUEL GAS CODE, THE INTERNATIONAL MECHANICAL CODE, THE INTERNATIONAL PROPERTY MAINTENANCE CODE, THE INTERNATIONAL FIRE CODE, THE 2018 UNIFORM PLUMBING CODE AS ADOPTED BY THE STATE OF IOWA, THE INTERNATIONAL PLUMBING CODE, THE 2012 INTERNATIONAL ENERGY AND CONSERVATION CODE, AND BY REFERENCE THE NATIONAL ELECTRICAL CODE AS CURRENTLY USED BY THE STATE OF IOWA, NFPA 58, AND NFPA 54 TO REGULATE THE ERECTION, CONSTRUCTION, ENLARGEMENT, ALTERATION, REPAIR, MOVING, REMOVAL, CONVERSION, DEMOLITION, OCCUPANCY, EQUIPMENT, USE, HEIGHT, AREA AND MAINTENANCE OF BUILDINGS AND STRUCTURES, INCLUDING INSTALLATION OF MOBILE, MANUFACTURED AND MODULAR HOMES; TO PROVIDE FOR THE ISSUANCE OF PERMITS AND COLLECTION OF FEES; AND TO PROVIDE PENALTIES FOR VIOLATIONS.

BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF WAUKEE, IOWA:

§222.0 **Waukee Municipal Code, Building Code Regulations and Penalties for Violations, is hereby repealed, and the following ordinance is hereby enacted in lieu thereof:**

§222.1 **Administrative Provisions.** Administration of this ordinance shall be as provided in this section and in the following sections of the several codes named which are hereby adopted by reference to provide procedures for local enforcement of the codes, constituting the International Codes. The Administrative Official or his/her designee, designated by the City Council, shall be responsible for the enforcement of the International Codes. He or she shall be accountable for the issuance of all applicable permits under this ordinance which shall include building permits issued in compliance with the Zoning Ordinance of the City of Waukee. The Administrative Official shall have the power to render interpretations of this code and to adopt and enforce rules and regulations supplemental to this code, subject to approval of the Council of the City of Waukee, as he/she may deem necessary in order to clarify the application of the provisions of this code. Such interpretations, rules and regulations shall be in conformity with the intent and purpose of this code.

§222.2 **Adoption of the 2018 International Residential Code.** Pursuant to published notice and public hearing, as required by law, the International Residential Code, 2018 Edition, published by the International Code Council, is hereby adopted in full, including Appendix Chapters E, H, J, and O except for such portions as may hereinafter be deleted, modified or amended.

§222.3 **Amendments, Modifications, Additions and Deletions.** The following amendments, modifications, additions and deletions to the International Residential Code, 2018

Edition, are hereby made:

- A. Insert Section R101.1 to read City of Waukee as the applicable jurisdiction.
- B. Delete Section R105.2(1) and replace as follows:
 1. One-story detached accessory structures, provided the floor area does not exceed 200 square feet; however, site plan approval shall be obtained from the Development Services Department.
- C. Delete Sections R105.2(2), R105.2(4), R105.2(5), and R105.2(10). Replace section R105.2 (5) with the following language: Sidewalks shall be permitted and installed in accordance with approved site plan for individual lot development.
- D. Amend Section R105.6 to include the addition of R105.6.1 Revocation of permit. Insert Section R105.6.1 to read: Revocation of Permit. It is the permit holder's responsibility to schedule the required inspections and obtain final approvals. 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.
- E. Add the following to Section R108.2 Schedule of Permit Fees with the following language:

Permit fees will be derived from the City of Waukee Fee Schedule adopted on an annual basis.
- F. Add the following to Section R108.3: The Building Valuation will be derived from the construction costs for the total work submitted by the contractor, or the most current Building Valuation Data Schedule published by the International Code Council (ICC). Submitted contractor valuation shall not be less than derived valuation through ICC. Published data is utilized by the Administrative Official in an effort to maintain consistency and fairness for permit fee calculations. It is not intended to reflect actual taxable value.

The method for determining the value of the additional listed residential items will be as follows: The square foot of the listed structure, times the Dwelling -

Type V - Wood Frame value, times the % multiplier assigned to each listed item.

1. Open Decks - 8%
2. Screened Porches - 15%
3. In-ground Pools - 17%
4. Above-ground pools - 8%
5. 3 Season Porches - 50%

G. Amend Section R108.5 to read as follows: Fee Refunds. The administrative official may authorize refunding of any fee paid hereunder which was erroneously paid or collected.

The administrative official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.

The administrative official may authorize refunding of not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan reviewing is done.

The administrative official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment.

H. Amend Section R110.1 to add the following at the end of the paragraph:

On all new construction, all necessary walks, drives and approaches, and all seeding and sodding are to be installed before a final Certificate of Occupancy is issued.

For one and two family residential lots, two trees (one inch caliper or greater) must also be planted.

I. Table R301.2(1) to read as follows:

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY	SUBJECT TO DAMABGE FROM			WINTER DESIGN TEMP	ICE BARRIER UNDERLAYMENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX	MEAN ANNUAL TEMP
	SPEED (MPH)	TOPOGRAPHIC EFFECTS	SPECIAL WIND REGION	WINDBORNE DEBRIS ZONE		WEATHERING	FROST DEPTH	TERMITE					
30	115	NO	NO	NO	A	SEVERE	42	MODERATE	0	YES	DEC. 2007	2000	48.6

J. Amend Section R301.2.1.3 to add the following:

For purposes of determining wind loads, the minimum basic wind speed shall be considered as 115 miles per hour; except when referenced documents are based on fastest mile wind velocities, Table R301.2(1) shall be used.

K. Amend Section R301.2.3 to add the following:

For purposes of determining snow loads, the minimum ground snow load for design purposes shall be 30 pounds per square foot. Subsequent increases or decreases shall be allowed as otherwise provided in this code, except that the minimum allowable flat roof snow load may be reduced to not less than 80 percent of the ground snow load.

L. Amend section R302.3 to read:

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

M. Modify IRC Table 302.6 and replace with the following table:

TABLE R302.6

DWELLING-GARAGE SEPARATION

SEPARATION		MATERIAL
From the residence and attics		Not less than 5/8-inch "X" gypsum board or equivalent applied to the garage side
From habitable rooms above the garage and structure(s) supporting floor/ceiling assemblies used for separation required by this section		Not less than 5/8-inch "X" gypsum board or equivalent
Garages located less than 5 feet from a dwelling unit on the same lot		Not less than 5/8-inch "X" gypsum board or equivalent applied to the interior side of exterior walls and ceilings within the garage

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

N. Delete Section R302.13

O. Amend Section R305.1.1 Exception to read:

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.

P. Amend Section R310.2.2 to add the following 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.

Q. Amend Section R310.6 Exception to read:

New habitable spaces created in an existing basement shall be provided with emergency escape and rescue openings in accordance with Section R310.1.

R. Amend Section R311.3.2 Exception to read:

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

S. Amend Section R311.7.5.1 to add exception 3 with the following language:

The dimension of the top and bottom riser of a stair may vary up to 1-inch (25.4 mm) from the stairway riser dimension; however, in no case shall the riser height exceed seven and three-quarter inches.

T. Amend Section R311.7.8.4 to add exception 3 with the following language:

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.

U. Delete Section R313.1 and replace with the following:

313.1 Townhouses automatic fire sprinkler systems. An automatic residential fire sprinkler system shall be installed in townhouses.

Exceptions:

1. 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.
2. Townhouse structures where the conditioned square footage of the entire building is less than twelve thousand (12,000) square feet. For purposes of this section, conditioned space shall be defined as space that can be occupied but shall not include garages or attics.
3. For townhouses under 12,000 square feet, both a front and rear egress shall be provided; otherwise, an automatic residential fire sprinkler system shall be installed.

V. Delete Section R313.2 and replace with the following:

313.2 One and two-family dwelling automatic fire sprinkler systems. An automatic residential fire sprinkler system shall be installed in one and two-family dwellings.

Exceptions:

1. An automatic residential fire sprinkler system shall not be required where additions or alterations are made to existing

buildings that are not already provided with an automatic residential fire sprinkler system.

2. One and two-family dwellings containing less than eight thousand (8,000) square feet of floor space, excluding attached garages and other unenclosed areas.

W. Amend Section R317.1 to add the following:

8. Fences. Residential fences shall be chain link, ornamental iron, PVC/Composite, or approved wood not more than six foot (6') higher than grade at the fence line. The face of the fence shall be equally attractive on both sides. However, if one side of the fence is considered less attractive because of structural members, etc., the less desirable side of the fence shall be directed toward the developing property or away from the public thoroughfare. Wood used in fences shall be treated wood, or approved wood of natural resistance to decay.

X. Replace Table R403.1(1),(2), (3)with the following:

TABLE R403.1
FOUNDATIONS FOR STUD BEARING WALLS

Number of Stories	Thickness of Foundation Walls		Minimum Width of Footing (inches)	Thickness of Footing (inches)	Minimum Depth of Foundation Below Natural Surface of Ground and Finish Grade (inches)
	Unit <i>Concrete Masonry</i>				
1	8	8	16	8	42
2	8	8	16	8	42
3	10	10	18	12	42

Y. Delete Section R403.1.4.1 Exception 1 and replace with the following:

Accessory structures up to 200 square feet may be constructed on a 4 inch wood deck or 4 inch concrete slab. Protection for detached garages and other accessory structures 600 square feet or less in size, with a maximum height or eighteen (18) feet, located more than ten (10) feet from a dwelling, attached garage, or other principal structures, may be accomplished with a floating slab (monolithic). The floating slab shall include a thickened slab edge or a minimum twelve (18) inches thick. Twelve 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. The floor shall be Portland cement concrete not less than four (4) inches thick. Garage floor areas shall have all sod and/or debris removed. For detached garages and accessory structures exceeding 600 square feet, a frost protected footing and foundation shall be required.

Z. Delete Section R403.1.4.1 Exception 2.

AA. Amend Section R404.1 to add the following:

1. Scope. Notwithstanding other design requirements of Sections R404.1 - R404.1.5.2 of the International Residential Code, foundation retaining walls for one and two family dwelling occupancies of Type V construction may be constructed in accordance with this section, provided that use or building site conditions affecting such walls are within the limitations specified in this section. Concrete foundation walls shall be selected and constructed in accordance with the provisions of Section R404.1.3. Masonry foundation walls shall be selected and constructed in accordance with the provisions of Section R404.1.2. If backfill prior to a poured in place floor slab is desired, one of the following methods to provide bottom lateral support shall be completed: (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' on center spacing.

BB. Amend Code to Add Code Section: IRC R404.1.3.2.3 Insert the following language and Table:

R404.1.3.2.3 Foundation Walls for Conventional Light Frame Wood Construction. Concrete and masonry foundation walls shall be permitted to be designed in accordance with the following Table 'Foundation Walls for Conventional Light Frame Construction' may be used:

Table R404.1.3.2.3 – 'Foundation Walls for Conventional Light Frame Construction'

Table R404.1.3.2.3 - '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
	7' 8"	7 Y2"	8"			

8						
9	8' 8"	8"	See Chapter 18 IBC	Y2" bars 2' o.c. horizontally & 20" vertically o.c.	See Chapter 18 IBC	Same as above
10	9' 8"	8"	See Chapter 18 IBC	(5/8" bars 2' o.c. horizontally & 30" vertically o.c.)	See Chapter 18 IBC	Same as above
<p>*Concrete floor slab to be nominal 4". If such floor slab is not provided prior to backfill, provide 1) 36" vertical embedded in the footing @ maximum 7' O.C. spacing -and/or- 2) full depth nominal 2" depth x 4" width keyway in footing</p> <p>** All reinforcement bars shall meet ASTM A6175 grade 40 minimum and be deformed. Placement of bars shall center of wall and meet the provisions of chapters 18, 19, and 21 of the International Building Code.</p>						
<p>NOTE: Cast in place concrete shall have a compressive strength of 3,000 lbs @ 28 days. Footings shall contain reinforcement of minimum 2 – Y2" diameter rebar throughout. Placement of reinforcement and concrete shall requirements of Chapter 19 of the International Building Code.</p>						
<p>NOTE: Material used for backfilling shall be carefully placed granular soil of average or high permeability and drained with an approved drainage system as prescribed in Section 1805.4 of the International Building Code. containing a high percentage of clay, fine silt or similar materials of low permeability or expansive soils are where backfill materials are not drained or an unusually high surcharge is to be placed adjacent to the wall, a designed wall shall be required.</p>						
<p>Note: Foundation plate or sill anchorage shall be installed in accordance with the respective codes as applicable.</p>						

BB. Amend Chapter 11 Energy Efficiency -- Energy Efficiency, of the IRC is hereby amended by deleting this chapter and inserting the following:

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 prescribed in "this code" and the regulations shall be known as the Waukee Energy Code.

CC. Amend Section R1601.4 to add the following:

Section 1601.4 Installation. Duct installation shall comply with sections M1601.4.1 through M1601.4.11

Section 1601.4.11. Air plenum and duct separation. Air plenums and ducts located in floor and wall cavities shall be separated from unconditioned spaces by construction with sufficient insulation to meet

energy code requirements. These areas include but are not limited to exterior walls, cantilevered floors, and floors above garages.

DD. Delete Section R G2414.5.2 (403.5.2) and replace with the following:

Section G2415.5.2 (403.5.2): Corrugated Stainless Steel Tubing (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.

EE. Delete Section R G2414.5.4 (403.5.5) and replace with the following:

Section G2414.5.4 (403.5.5): 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.

FF. Amend section P2603.5.1 Sewer depth. Building sewers that connect to private sewage disposal systems shall not be less than 66 inches below finished grade at the point of septic tank connection or as approved by Dallas County Environmental Health. Building sewers shall not be less than 66 inches below grade.

GG. Add Code Section IRC E3704.7 and insert the following language:

3704.7 Prohibited Locations. Feeders supplying a townhome shall not cross a property line other than the individual unit served. For the purposes of this provision, the term townhome shall mean a single-family dwelling unit constructed in a group of two or more attached units in which each unit extends from foundation to roof and with a yard or public way on not less than two sides.

Exception: If a recorded easement is established in a concealed space or attic within the townhome unit, feeds are allowed within the easement.

§222.4 **Adoption of the 2018 International Building Code.** Pursuant to published notice and public hearing, as required by law, the International Building Code, 2018 Edition, published by the International Code Council, is hereby adopted in full to include Appendix K except for such portions as may hereinafter be deleted, modified or amended.

§222.5 **Amendments, Modifications, Additions and Deletions.** The following amendments, modifications, additions and deletions to the International Building Code, 2018 Edition, are hereby made:

A. Insert Section 101.1 to read City of Waukee

- B. Delete Sections 105.2(2), 105.2(5), 105.2(6).
- C. Amend Section R105.6 to include the addition of R105.6.1 Revocation of permit. Insert Section R105.6.1 to read: Revocation of Permit. It is the permit holder's responsibility to schedule the required inspections and obtain final approvals. 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.
- D. Add the following to Section 109.2 Schedule of Permit Fees with the following language:
Permit fees will be derived from the City of Waukee Fee Schedule adopted on an annual basis.
- E. Add the following to Section R109.3: The Building Valuation will be derived from the construction costs for the total work submitted by the contractor, or the most current Building Valuation Data Schedule published by the International Code Council (ICC). Submitted contractor valuation shall not be less than derived valuation through ICC. Published data is utilized by the Administrative Official in an effort to maintain consistency and fairness for permit fee calculations. It is not intended to reflect actual taxable value.
- F. Delete Section 308.5.4 and replace with the following:
308.5.4 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 a child development home on or before January 1, 2017, are permitted to comply with the International Residential Code.
- G. Delete Section 310.4.1 and replace with the following:

310.4.1 Care facilities within a dwelling. Care facilities within a dwelling shall adhere to section 308.5.4.

- H. Delete Code Section: IBC 419.1 and 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.

- I. Amend Code Section: IBC 419.1.1 Item #3 to contain the following language:
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.

- J. Amend Code Section: IBC 419.2 to include Exception #2 with the following language
#2. Live/work units located within detached one-and two-family dwellings and townhomes may be constructed in accordance with the International Residential Code.

- K. Amend Section 423.4 to delete entire section including subsections 423.4.1 and 423.4.2 and replace with 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.

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.

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.

Exception: Existing schools undergoing alterations, additions, or construction of new accessory buildings.

- L. Delete Code Section: IBC 502.1 (Correlation IFC 505.1) and 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 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**

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.

- M. Amend IBC 707.5 to add Exception 3 with the following language:
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 noncombustible separation of 2 hours is provided between the shaft and adjoining structure. In addition, the provisions of section 1023.7 shall be met.
- N. Delete IBC 713.3 and replace with the following language:
713.3 Materials. Shaft enclosures shall be of material and constructed in accordance with sections 713.3.1 and 713.3.2.
- O. Add code section IBC 713.3.1 with the following language:
713.3.1 --1 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.
- P. Add code section IBC 713.3.2 with the following language:
713.3.2 --2 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
- Q. Modify IBC Section 716.2.6.1 to add the following language after the last sentence:
Automatic, self-closing, UL listed hinges may only be installed on the dwelling room entry door.
- R. Add Section 902.1.1.1 (Correlation IFC 901.4.6.1) to include the following 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.
- S. Add new code section IBC 902.1.5 (Correlation IFC 901.4.6.5 DD) to include the following language:
902.1.5 Temperature Sensor. Provide a low temperature sensor in the fire sprinkler riser room. Low Temperature Sensor shall be monitored to prevent

freezing.

T. Delete Section 903.2 and replace with the following:

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. consistent with adopted amendments to the 2018 International Fire Code for the City of Waukee.

1. An approved automatic fire extinguishing system is required if the gross square footage of a building is equal to or greater than described in Sections 903.2.1 through 903.2.12.
2. The square footage used for calculating total "gross square footage" of a building or structure shall be measured using the outside dimensions of the total building or structure to include attached or detached buildings or structures.
3. To exempt detached buildings or structures from the total gross square footage from meeting the requirements to have fire sprinklers systems installed, the buildings or structures per legal lot or contiguous lots under common ownership, must be separated by twenty feet (20') and have 1-hour rated exterior walls on both buildings or structures so as not to have the combined total of their gross square footage applied to this section of the code.
4. For the purposes of section 903.2, "Fire separations" shall not be permitted to reduce the total gross square footage of a building or area for the purpose of calculating the fire sprinkler square footage requirements.
5. For the purposes of section 903.2, "story" shall be defined as any level of a structure, whether above or below grade capable of occupancy.
6. Additions to buildings or structures shall comply with all of the requirements of section 903.2 of this code for new buildings or structures. The entire building or structure, existing and proposed additions, shall comply with all of the requirements of the fire sprinkler section 903.2 of the fire code for new buildings and structures, when the total of all the additions to the building or structure made exceeds twenty-five (25) percent of the gross area of the building or structure.
7. When a building is used for more than one occupancy purpose or use, the entire building shall meet the requirements of the fire sprinkler section 903.2 of the Fire Code based on the requirements for the most restrictive occupancy group as defined in Chapter 2 of the 2018 International Fire Code.

Exception:

1. 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.

U. Delete Section 903.2.11.1.3 and replace with the following:

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.

V. Add Section 903.3.1.1.3 with the following language:

903.1.1.3 Sprinkler installed under exterior projections. A canopy covering a door that is required to be marked as an exit shall be required to have fire sprinklers installed outside that door if the canopy extends more than 4 feet out from the door and is 12 feet or less in height from the ground regardless of whether the canopy is combustible or non-combustible. Canopies that have vehicle access under them with door openings shall be required to have fire sprinklers installed under the total canopy regardless of whether the canopy is combustible or non-combustible.

W. Delete Section 903.4.2 and replace with the following:

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.

X. Add the following Section 905.3.9:

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.

Y. Add the following Section 907.1.4:

907.1.4 FACP (Fire Alarm Control Panels)

Each building shall have no more than 1 FACP.

Installation of fire alarm panel shall 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.

Z. Amend Section 907.2 to add the following exception:

Exception:

3. Fire Area and Occupant Load amendments, refer to 2018 IFC amendments.

AA. Delete Section 907.6.6 and replace with the following:

907.6.6 Monitoring. Fire alarm systems required by this chapter or by the International Building Code shall be monitored at 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.

BB. Delete Section 910.2.1 and replace with the following:

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 square meters) 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.

CC. Amend Section 1008.3.3. to add the following locations with sequential numbering:

5. Public restrooms containing more than one water closet/urinal or that are accessible.
6. Meeting and conference rooms with an area greater than 400 square feet.
7. Classrooms in an E occupancy with an area greater than 400 square feet.

DD. Amend Section 1009.2 to add the following:

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

EE. Add Section 1010.1.6.1 with the following language:

1010.1.6.1 For 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.

FF. Amend Section 1010.1.9.1 to add the following:

Thumb Turn Locks shall not be allowed.

GG. Add the following Section 1013.1.1:

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

HH. Delete Sections 1013.5 and 1013.6 including 1013.6.1, 1013.6.2 and 1013.6.3.

II. Add the following Section 1028.5.1:

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

JJ. Add the following Section 1030.5.3:

1030.5.3 Window well drainage. All window wells shall be provided with approved drainage.

KK. Modify Code Section: IBC 1301.1 and 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 Waukee Energy Code.

LL. Amend Section 1608.2 to add the following: For purposes of determining snow loads, the minimum ground snow load for design purposes shall be 30 pounds per square foot. Subsequent increases or decreases shall be allowed as otherwise provided in this code, except that the minimum allowable flat roof snow load may be reduced to not less than 80 percent of the ground snow load.

MM. In Section 1609.1.1 add the following: For purposes of determining wind loads, the minimum basic wind speed shall be considered as 115 miles per hour; except when referenced documents are based on fastest mile wind velocities, Table 1609.3(1) shall be used.

NN. Add the following to Section 1807.1 Foundation Retaining Walls for Group R Occupancies:

1. Scope. Notwithstanding other design requirements of Chapters 18, 19 and 21 of the International Building Code, foundation retaining walls for Group R occupancies of Type V construction may be constructed in accordance with

this section, provided that use or building site conditions affecting such walls are within the limitations specified in this section.

- Specifications. General specifications for such foundation retaining walls shall be as follows:

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 Y2"	8"	Y2" horizontal bars, placement in the middle, and near the top & bottom – Y2" 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	Y2" bars 2' o.c. horizontally &	See Chapter 18 IBC	Same as above
10	9' 8"	8"	See Chapter	20" (5/8" bars 2' o.c. horizontally & 30" vertically o.c.)	See Chapter 18 IBC	Same as

*Concrete floor slab to be nominal 4". If such floor slab is not provided prior to backfill, provide 1) 36" 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 center of wall and meet the provisions of chapters 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 reinforcement of minimum 2 – Y2" diameter rebar throughout. Placement of reinforcement and requirements of Chapter 19 of the International Building Code.

NOTE: Material used for backfilling shall be carefully placed granular soil of average or high drained with an approved drainage system as prescribed in Section 1805.4 of the International Building Code containing a high percentage of clay, fine silt or similar materials of low permeability or expansive soils where backfill materials are not drained or an unusually high surcharge is to be placed adjacent to the designed wall shall be required.

Note: Foundation plate or sill anchorage shall be installed in accordance with the respective codes as applicable.

OO. Replace Table 1809.7 with the following:

TABLE 1809.7
FOUNDATIONS FOR STUD BEARING WALLS

Number of Stories	Thickness of Foundation Walls		Minimum Width of Footing (inches)	Thickness of Footing (inches)	Minimum Depth of Foundation Below Natural Surface of Ground and Finish Grade (inches)
	Unit <i>Concrete Masonry</i>				
1	8	8	16	8	42
2	8	8	16	8	42
3	10	10	18	12	42

§222.6 **Adoption of the 2018 International Existing Building Code.** Pursuant to published notice and public hearing, as required by law, the International Existing Building Code, 2018 Edition, published by the International Code Council, is hereby adopted in full except for such portions as may hereinafter be deleted, modified or amended.

§222.7 **Amendments, Modifications, Additions and Deletions.** The following amendments, modifications, additions and deletions to the International Existing Building Code, 2018 Edition, are hereby made:

A. Add the following to Section 108.2 Schedule of Permit Fees with the following language:
Permit fees will be derived from the City of Waukee Fee Schedule adopted on an annual basis.

B. Add New Code Section: IEBC 302.7 with the following language:
Section 302.7 Fire Protection. Existing buildings containing R-2 occupancies shall be made to comply with the International Building Code Section 903.2.8 within two (2) years of any of the following situations:

1. Fire damage to three or more dwelling units, not including smoke or water damage or other damage from fire-fighting operations.
2. Issuance of a building permit for a Level III alteration as identified in Chapter 6 of the International Existing Building Code.

C. Delete Code Section: IEBC 1106 and replace with the following language (sections 1106.1, 1106.1.2, & 1106.1.3):

Section 1106.1 Addition to a Group E occupancy. Where an addition is added to an existing Group E occupancy located in an area where the shelter design wind speed for tornadoes is 250 mph in accordance with Figure 304.2 (1) of ICC 500 and the occupant load of the addition is 50 or more, the addition shall have a storm shelter constructed in accordance with Chapters 1 through 5 & 8 of ICC 500.

For the purposes of this section the installation of portable buildings for utilization on the campus or site for educational purposes shall be considered as an addition.

Exceptions:

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

The aggregate area of all additions within a 10 (ten) year period shall be factored when determining the requirements of this section.

1106.1.2 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 an addition is being added on an existing Group E site, and where the addition 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 addition.
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.

1106.1.3 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.

D. Conversion to condominium or multiple housing cooperative.

1. The conversion of any residential building or portion thereof to a horizontal property regime or to a multiple housing cooperative shall be treated as a change of occupancy classification for the building, notwithstanding anything in the building codes to the contrary, and shall conform to the International Building Code.
2. No person shall file or record a declaration in the office of the county recorder to convert an existing structure located within the city to a horizontal property regime unless a certificate of occupancy for compliance with the current building codes has been issued by the Administrative Official

3. No person shall file or record an instrument in the office of the county recorder conveying an interest in real estate located in the city to a multiple housing cooperative unless a certificate of occupancy for compliance with the current building codes has been issued by the Administrative Official.
4. At least 60 days before being filed or recorded in the office of the county recorder, the applicant shall file a copy of such declaration or such instrument, together with the following documents with the Administrative Official, and shall also pay a conversion fee in the amount set in the schedule of fees adopted by the city council by resolution:
 - a. Two copies of an as-built plan for the entire structure.
 - b. Building code analysis prepared by a licensed architect or professional engineer demonstrating that the structure conforms with the current building codes, or can be brought into conformance with the current building codes by planned improvements to be made to the structure.
 - c. Two copies of construction plans for planned improvements to be made to the structure to bring the structure into conformance with the current building codes.
5. Upon receipt of the documents and the conversion fee as provided above, the Administrative Official shall review the building code analysis and conduct such inspections of the structure as may be deemed appropriate by the administrator to determine whether or not the structure conforms with the requirements of paragraph (1) above. If the Administrative Official determines that the structure has been shown to be in substantial compliance with the requirements of paragraph (a) above, the administrator shall cause a certificate of occupancy to be issued for the use of the structure as a horizontal property regime or a multiple housing cooperative. If the structure has not been shown to be in substantial compliance with the requirements of paragraph (1) above, the administrator shall give written notice to the applicant of any violations of the applicable code requirements discovered to exist in the building.

§222.8 **Adoption of the 2018 International Mechanical Code.** Pursuant to published notice and public hearing, as required by law, the International Mechanical Code, 2018 Edition, published by the International Code Council, is hereby adopted in full except for such portions as may hereinafter be deleted, modified or amended.

§222.9 **Amendments, Modifications, Additions and Deletions.** The following amendments, modifications, additions and deletions to the International Mechanical Code, 2018 Edition, are hereby made:

A. The City of Waukee interprets “NFPA 54 and NFPA 58” as equivalent alternatives for design to meet the intent of the 2018 International Fuel Gas Code

B. Amend Section 106.5.2 to add the following:

Permit fees will be derived from the City of Waukee Fee Schedule adopted on an annual basis.

C. Amend Section 306.1 to add the following:

An unobstructed level working space at least 30 inches deep and 30 inches wide shall be provided on any side of equipment where service access is required.

Administrative official or designee may approve service space reductions prior to equipment installation, provided manufacturer’s instructions are met. (excluding suspended ceiling)

D. Amend Section 306.5 to add the following:

If the tenants of a multiple tenant building have, or are allowed to have, mechanical facilities on or which penetrate the roof, then roof access ladders must be provided for use by all such tenants and their agents and contractors in a manner that does not require accessing space under the control of another tenant.

E. Delete Section 307.2.4.1 and replace with the following:

307.2.4.1 Ductless mini-split system traps. Ductless mini-split equipment that produces condensate shall be installed per manufacturer’s instructions.

F. Amend Section 603.1 to add the following:

Air plenums and ducts located in floor and wall cavities shall be separated from unconditioned space by construction with insulation to meet energy code requirements. These areas include but are not limited to exterior walls, cantilevered floors, and floors above garages.

§222.10 **Adoption of the 2018 Uniform Plumbing Code.** Pursuant to published notice and public hearing, as required by law, the Uniform Plumbing Code, 2018 Edition, published by the International Association of Plumbing and Mechanical Officials and amended by the State of Iowa, is hereby adopted in full except for such portions as may hereinafter be deleted, modified or amended.

§222.11 **Amendments, Modifications, Additions and Deletions.** The following amendments, modifications, additions and deletions to the Uniform Plumbing Code, 2018 Edition, are hereby made:

The City of Waukee interprets the 2018 International Plumbing Code as published by the International Code Council as an equivalent alternative to the 2018 Uniform Plumbing Code.

A. UPC Section 104.5: Delete Table 104.5 and insert the following language: permit fees will be derived from the City of Waukee Fee Schedule adopted on an annual basis.

B. Amend Section UPC 407.3 to include the following language at the end of the Code section:

Tempering devices shall be installed at or as close as possible to the point of use.

C. Amend Section UPC 418.3 to include location #5 with the following language:
Rooms containing a water heater.

D. Amend Section UPC 609.1 to add the following language:

Water service piping shall have no less than five feet (5') of soil cover.

E. Amend Section UPC 701.2 to add the following language:

(7) The use of SDR 23.5 is an acceptable material for exterior building sewers.

F. Amend Section UPC 717.1 to add the following language:

717.1.1 Size of Drainage Piping. The main building drain shall be a minimum four inch (4") diameter.

G. Amend Section UPC 718.3.1 to add the following language:

718.3.1 Protection from damage. Building sewers less than 42 inches below grade shall be cast iron pipe or be protected with an engineered system to prevent damage from freezing and frost heave.

H. Amend Section UPC 1014.1 to add the following language:

Notwithstanding provisions of section 1014.1, regulations of Fat Oil and Grease (FOG) and sizing of FOG removal devices where connected to Wastewater Reclamation Authority (WRA) system shall be in accordance with WRA regulations for the regulations of industrial wastewater and commercial wastewater.

I. Delete Section UPC 1101.12.2.2.2 Combined System.

J. Amend Section UPC 1208.6.4.4 to add the following language:

1208.6.4.4 Corrugated Stainless Steel Tubing. 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 1211.2. 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.

§222.12 **Adoption of the 2020 National Electrical Code.** Pursuant to published notice and public hearing, as required by law, the currently adopted by the State of Iowa Edition of the National Electrical Code, published by the National Fire Protection Association, is hereby adopted in full except for such portions as may hereinafter be deleted, modified or amended.

§222.13 **Amendments, Modifications, Additions and Deletions.** The following amendments, modifications, additions and deletions to the National Electrical Code, as currently adopted by the State of Iowa, are hereby made:

A. Amend Section 90.2 to add the following language:

90.2(D) Scope. Permits required. Permits shall be required for work contained within the scope of this article. Permit fees will be derived from the City of Waukeg Fee Schedule adopted on an annual basis.

B. Delete section 210.8(A). and insert in lieu thereof the following new section:

210.8 (A) Dwelling Units.

All 125-volt receptacles installed in locations specified in 210.8 (A)(1) through 210.8 (A)(11) shall be ground-fault circuit-interrupter protection for personnel.

(1) Bathrooms

(2) Garages and also accessory buildings that have floor located at or below grade level not intended to be habitable rooms and limited to storage areas, work areas, or similar use

(3) Outdoors

Exception to (3) Receptacles that are not readily accessible and are supply branch circuits dedicated to electrical snow-melting, deicing, or pipeline and Bessel heating equipment shall be permitted to be installed in accordance with 426.28m or 427.22, as applicable

(4) Crawl spaces – at or below grade level

(5) Basements

Exception to (5): A receptacle supplying only a permanently installed fire alarm or burglar alarm system shall not be required to have ground-fault circuit-interrupter protection.

Informational Note: See 760.41B and 760.121(B) for power supply requirements for fire alarm systems.

Receptacles installed under the exception to 210.8 (A) (5) shall not be considered as meeting the requirements of 210.52(G).

(6) Kitchens – Where the receptacles are installed to serve the countertop surfaces

(7) Sinks – Where receptacles are installed within 1.8 m (6 ft) from the top inside edge of the bowl of the sink

(8) Boathouses

(9) Bathtubs or shower stalls – Where receptacles are installed within 1.8 m (6 ft) of the outside edge of the bathtub or shower stall

(10) Laundry areas

Exception to (1) through (3), (5) through (8), and (1): Listed locking support and mounting receptacles utilized in combination with compatible attachment fittings installed for the purpose of serving a ceiling luminaire or ceiling fan shall not be required to be ground-fault circuit-interrupter protected. If a general-purpose convenience outlet is integral to the ceiling luminaire or ceiling fan, GFCI protection shall be provided.

(11) Indoor damp and wet locations

C. Delete section 210.8(F)

D. Add Code Section NEC 215.13 Prohibited Locations with the following language: NEC 215.13 Prohibited Locations. Feeders supplying townhomes shall not extend through any townhome unit other than the unit served. For the purpose of this provision, the term townhome shall mean a single-family dwelling unit constructed in a group of two or more attached units in which each unit extends from the foundation to roof with a yard or public way on not less than two sides. Exception: If a recorded easement is established in a concealed space or attic within a townhome unit, feeders are allowed within that easement.

§222.14 **Adoption of the 2018 International Fuel Gas Code.** Pursuant to published notice and public hearing, as required by law, the International Fuel Gas Code, 2018 Edition, published by the International Code Council, is hereby adopted in full except for such portions as may hereinafter be deleted, modified or amended.

§222.15 **Amendments, Modifications, Additions and Deletions.** The following amendments, modifications, additions and deletions to the International Fuel Gas Code, 2018 Edition are hereby made:

A. Amend Section 106.6.2 to include the following language: Permit fees will be derived from the City of Waukee Fee Schedule adopted on an annual basis.

B. Delete Section 5.6.3.4 and replace with the following:

5.6.3.4 Corrugated Stainless Steel. 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 manufacturer's instructions and this code including electrical bonding requirements in Section 7.13.2. 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.

§222.16 **Adoption of the 2018 International Property Maintenance Code.** Pursuant to published notice and public hearing, as required by law, the International Property Maintenance Code, 2018 Edition, published by the International Code Council, is hereby adopted in full except for such portions as may hereinafter be deleted, modified or amended.

§222.17 **Amendments, Modifications, Additions and Deletions.** The following

amendments, modifications, additions and deletions to the International Property Maintenance Code, 2015 Edition, are hereby made:

- A. Amend Section 101.1 Title to insert Waukee as the jurisdiction referenced.
- B. Amend Section 103.5 Fees to include the following language: Permit fees will be derived from the City of Waukee Fee Schedule adopted on an annual basis.
- C. Amend Section 112.4 Failure to comply by removing “shall be liable to a fine of not less than [AMOUNT] dollars of more than [AMOUNT] dollars” and replacing with “failure to comply with a Rental Housing Inspection Order is a violation and is considered a municipal infraction.”
- D. Amend Section 302.4 to delete [JURISDICTION TO INSERT HEIGHT IN INCHES] and replace with “8 inches in height on developed properties and 10 inches in height on undeveloped properties.”
- E. Amend Section 304.14 to read as follows:

During the period from April 15th to October 15th, every door, window and other outside opening required for ventilation of habitable rooms, food preparation areas, food service areas or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored, shall be supplied with approved tightly fitting screens of not less than 16 mesh per inch (16 mesh per 25 mm) and every swinging door shall have a self-closing device in good working condition.
- F. Amend Section 602.3 by deleting “[DATE] to [DATE]” and replacing with September 1 to May 30.
- G. Amend Section 602.4 by deleting “[DATE] to [DATE]” and replacing with September 1 to May 30.
- H. Insert new sentence prior to last sentence of paragraph in Section 605.2 with the following language:

Any accessible receptacle within 6 feet of a water source shall be provided with Ground-Fault Circuit-Interrupter Protection.
- I. Amend Section 705.1 to add the following language to the end of the paragraph: In addition, carbon monoxide alarms and detectors shall be installed in accordance with Iowa Code Section 661—Chapter 211.
- J. Add new Section 705.3 with the following language:

705.3 Installation Locations. Installation locations shall be in conformance with the International Fire Code, the International Residential Code, Iowa Code, and at the location closest to the hazard of an attached garage or fuel-fired appliance.

§222.18 **Adoption of the 2012 International Energy Conservation Code.**
Pursuant to published notice and public hearing, as required by law, the International Energy Conservation Code, 2012 Edition, published by the International Code Council, is hereby

adopted in full except for such portions as may hereinafter be deleted, modified or amended.

§222.19 **Amendments, Modifications, Additions and Deletions.** The following amendments, modifications, additions and deletions to the International Energy Conservation Code, 2012 Edition, are hereby made:

- A. 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.
- B. Delete Sections 101.1, 101.2, 103.3.1, 103.3.2, 103.3.3, 103.4, 103.5, and all of Sections 104, 107, 108 and 109.
- C. All energy code compliance inspections shall be completed by a third party certified to do such inspections with a report submitted to the Administrative Official showing compliance with the State adopted energy code.
- D. Add Code Section C402.1.1.1 Seasonal Structures with the following language:

C402.1.1.1 Seasonal Structures. The following seasonal type structures are exempt from meeting the provisions of this code. (These facilities are allowed to have heating and/or cooling equipment for temporary comfort of patrons and employees during operating hours.)

- 1. Food Service Buildings that serve patrons at amusement parks, water parks, and outdoor sporting facilities. The buildings can only be occupied by employees, must not be able to allow patrons to be served within the facility and must have its sole means of servicing customers, an operable exterior serving window.
- 2. Restroom Facilities that serve amusement parks, water parks, and outdoor sporting facilities.

- E. Delete Section C408.2 and replace with the following:

Mechanical systems and service water-heating systems commissioning and completion requirements. Prior to the final mechanical and plumbing inspections, the registered design professional or approved agency shall provide evidence of mechanical systems commissioning and completion in accordance with the provisions of this section. The Commissioning Agent shall be in no way affiliated with the project's design, installation or sale of products, to avoid any conflict of interest. The Commissioning Agent shall be accredited by an industry-recognized certification program, to be determined by the AHJ.

§222.20 **Adoption of the 2018 International Fire Code.** Pursuant to published notice and public hearing, as required by law, the *International Fire Code*, 2018 edition, including Appendix Chapters **B, C, D, I, K, and N** (see *International Fire Code* Section 101.2.1, 2018 edition), as published by the International Code Council, is hereby adopted in full as the Fire Code of City of Waukee, for regulating and governing the safeguarding of life and

property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises as herein provided; and each and all of the regulations, provisions, penalties, conditions and terms of said Fire 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.

§222.21 **Amendments, Modifications, Additions and Deletions.** The following amendments, modifications, additions and deletions to the International Fire Code, 2018 Edition, are hereby made:

A. Section 101.1. Insert: **[City of Waukee]**

B. Insert New Code Section 105.3.9

105.3.9 Revocation of Permit. It is the permit holder’s responsibility to schedule the required inspections and obtain final approvals. 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.

C. Insert New Code Section IFC 105.4.1.2:

105.4.1.2 Fire Protection System Submittals. All life safety plans submitted for review to include, but not limited to, fire sprinkler system plans, fire alarm system plans, and clean agent system plans shall be designed and stamped by a person with a minimum of a NICET III certification, fire protection engineer, qualified engineer with two (2) years demonstrated experience in life safety system design, or equivalency as determined by the code official. Plan approval will be based upon the plans submitted by the equipment supplier utilizing the above requirements.

D. Insert New Code Section IFC 105.4.1.3:

105.4.1.3 Life Safety Plan Review Technical Assistance. Fire sprinkler systems, fire alarm system, fire pumps, clean agent systems, kitchen hood suppression systems shall be submitted to the Waukee contracted third party engineer for review at the discretion of the

fire code official. The Code Official has the authority to require additions/modifications to the existing fire sprinkler systems and fire alarm systems to be sent to the Waukee contracted third party for review.

E. Insert New Code Section 106.2.1 :

106.2 The construction permit/plan review fee Refer to City of Waukee current fee schedule.

F. Insert New Code Section 106.2.1:

106.1.1 Work commencing before permit issuance fee. If required life safety plans are not received at the Waukee Fire Department prior to 7 days before the final certificate of occupancy inspection is scheduled, a fee of \$200.00 shall be paid by the submitting company prior to the inspection taking place and the inspection will be re-scheduled for a date as determined by the Code Official.

G. Insert New Code Section 106.4.1 Insert:

106.4.1 Re-inspection Fees. A fee for re-inspections for the construction, alteration, operation and/or fire life safety inspections shall be paid as required, in accordance with the schedule as established by the applicable governing authority. Refer to current City of Waukee fee schedule.

H. Insert New Section IFC 106.4.2 insert:

106.4.2 Mitigation Reimbursement Fees. Reimbursement fees that are actual and necessary expenses incurred in carrying out the mitigation of specialized emergencies including, but not limited to, hazardous materials, specialized rescue, and crime scenes (including arson) shall be invoiced to the responsible person, firm or corporation. An available fee schedule shall be reviewed and posted annually by the Fire Chief's Office. Fees may include, but not limited to, personnel compensation, apparatus use, equipment use and specialized contract labor associated with the mitigation of the specialized emergency.

I. Insert New Code Section IFC 107.1.1:

107.1.1 Inspection Tags. Tags for inspection of fire suppression systems, fire extinguishers, and fire alarm systems are required to be White West Metro Fire Prevention Bureau. These tags can be purchased from the West Des Moines Fire Prevention Bureau for use in the City of Waukee.

J. Delete Code Section IFC 108.3 and replace with the following language:

108.3 Recordkeeping. A record of periodic inspections, tests, servicing and other operations and maintenance shall be maintained on the premises or other approved location for not less than 3 years, or a different period of time where specified in this code or referenced standards. Records shall be made available for inspection by the fire code official, and a copy of the records shall be provided to the fire code official upon request.

The fire code official has prescribed the form and format of such record keeping to be electronically submitted through a web based system, The Compliance Engine.

The fire code official is authorized to require that certain required records be filed with the fire code official.

Owners or premise property manager designee shall have the contractor licensed to inspect fire prevention and life safety systems within the State of Iowa are required to submit their reports of systems within the City of Waukee jurisdiction. All reports shall be submitted within 30 days of the inspection or maintenance completion. Systems with impairments should be reported immediately.

K. Code Section 109: Refer to Waukee Board of Appeals.

L. Delete Code Section IFC 1010.4 and replace with the following language:

110.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor unless declared to be a municipal infraction in this code or in any city ordinances. If the act is not declared to be a misdemeanor or a municipal infraction and if no specific penalty is provided therefore, the violation of an such provision shall be deemed to be a misdemeanor punishable by a civil penalty fine of not more than six hundred twenty five dollars or by imprisonment not exceeding 30, or both such fine and imprisonment as provided in Section 903.01, subsection 1, paragraph a of the Iowa Code. The City of Waukee may classify a municipal infraction per Section 364.22 subsection 1 paragraph b in this Code or in any city ordinance, the violation of any such provision shall be punishable by a civil penalty of not more than seven hundred fifty dollars for each violation or if the infraction is a repeat offense, a civil penalty not to exceed one thousand dollars for each repeat offense. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

M. Section 112.4. Insert dollar amounts in accordance with 110.4.

N. Delete Code Section: IFC 308.1.4 Replace with the following language:

308.1.4 Open-flame cooking devices. Charcoal burners, other open-flame cooking devices, and other devices that produce ashes or embers shall not be operated on balconies or within 20 feet (3048 mm) of combustible construction. Location of LP containers shall comply with Section 6104. **Exceptions:**

1. One- and two-family *dwelling*s, constructed in accordance with the *International Residential Code*.
2. LP-gas cooking devices having LP-gas container with a water capacity not greater than 20 pounds.

O. Insert New Code Section:

319.11 Location. Mobile food vehicles shall not be located within 20 feet (6096 mm) of buildings, tents, canopies or membrane structures.

P. Insert New Code Section: IFC 503.1.4 Insert the following language:

503.1.4 Outdoor Venue Access. A 10 ft. wide emergency access roads designed to support 36,000 lb. weight load shall be provided within 350-feet of all portions of an outdoor venue (e.g. soccer complex, park, skate park, sports fields) to facilitate emergency vehicle access.

Exception: The fire code official is authorized to increase the dimension of 350 feet where emergency access roads cannot be installed because of location on property, topography, waterway, nonnegotiable grades, or other similar conditions, and an approved alternative means of emergency access is provided.

Q. Delete Code Section: IFC 503.2.1 Replace with the following language:

503.2.1 Dimensions. Fire apparatus access roads shall have a minimum unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4268 mm).

R. Delete Code Section: IFC 505.1 Replace with the following language:

505.1 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 505.1
Minimum Height and Stroke Width**

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.

S. Delete Code Section: IFC 507.5.1.1 Replace with the following language:

507.5.1.1 Hydrant for fire department connection. Buildings equipped with a fire department connection installed in accordance with Section 912 shall have a fire hydrant located on a fire access road within 100 feet (30 m) of the fire department connection as measured by an approved route around the exterior of the building.

Exception: The distance shall be permitted to exceed 100 feet (30 m) where approved by the *fire code official*.

T. Delete Code Section: IFC 507.5.5 Replace with the following language:

507.5.5 Clear space around hydrants. A 5-foot (1524 mm) horizontal clear space shall be maintained around the circumference of fire hydrants, as measured from the center- point of the hydrant, except as otherwise required or *approved*.

U. Insert New Code Section: IFC 507.5.7 Insert the following language:

507.5.7 Fire Hydrant Markers and Identification Color. When required by the Fire Code Official, hydrant locations shall be identified by the installation of an *approved* reflective marker. Both public and private hydrants shall comply with and be painted to Local Water Utility specifications.

V. Insert New Code Section: IFC 507.5.8 Insert the following language:

507.5.8 Fire Hydrant Installation. Fire hydrants shall be installed with the grade mark on the fire hydrant at the level of finished grade. The large diameter connection shall be installed such that the connection is oriented facing the fire department access road.

W. Modify Code Section: IFC 508.1 Replace with the following language:

508.1 General. Where required by other sections of this code, Table 508.1, and in all buildings classified as high-rise buildings by the *International Building Code*, a *fire command center* for fire department operations shall be provided and shall comply with Sections 508.1.1 through 508.1.6.

X. Add Code Section: IFC Table 508.1 Add the following language:

Table 508.1 Fire Command Center Thresholds

Occupancy	Threshold Requiring a Fire Command Center
Group A	1,000 occupants
Group E	100,000 gross square feet
Group F	200,000 gross square feet
Group H	100,000 gross square feet
Group I-2 or I-3	100,000 gross square feet
Group M	100,000 gross square feet

Group R1	Greater than 200 <i>dwelling units</i> or <i>sleeping units</i>
Group S	200,000 gross square feet

Y. Insert New Code Section 511 Insert:

Section 511 Fire and Emergency Vehicle Lanes.

511.1 General. Fire and emergency vehicle lanes shall be provided and maintained in accordance with section 511.1 through 511.6, and referred to as fire lanes in this ordinance.

511.2 Purpose. The requirement that Fire Lanes be established in certain parking areas and the enforcement of restrictions on parking in such Fire Lanes established in this Chapter are designed to ensure adequate access to commercial, office, multi-family, and other high density use facilities by fire-fighting and other emergency vehicles.

511.3. Designation. The Fire Code Official may designate fire lanes on private and public property as deemed necessary for the protection of life and property.

511.4 Obstruction. No person shall park or place a vehicle or other obstruction in a designated fire lane that would prevent such fire lane from being immediately accessible to emergency vehicles, or deter or hinder emergency vehicles from gaining immediate access to the fire lane. A written request to the jurisdictional Fire Code Official for temporary obstruction of a fire lane shall be submitted for approval.

511.5 Signs and markings. Wherever a fire lane has been designated, the Code Official shall cause appropriate signs and markings to be placed identifying such fire lanes. Signs or markings shall be maintained in a clean and legible condition at all times and shall be replaced or repaired when necessary to provide adequate visibility. Fire lanes may be established or relocated at the time of plan review, pre-construction site inspection, and/or post construction site inspection, as well as any time during the life of the occupancy as needed to provide and maintain emergency vehicle access. All designated fire lanes shall be clearly marked in the following manner:

Vertical curbs shall be painted red on the top and side, extending the length of the designated fire lane. Rolled curbs or surfaces without curbs shall have a red (6) inch wide stripe painted the length of the designated fire lane. One of the following identification lettering methods shall be utilized:

1. The words “NO PARKING – FIRE LANE (Except for Emergency Vehicles)” shall be stenciled with three (3) inch white letters and a minimum three – quarter (¾) inch stroke on the face of the curbing, or in the absence of vertical curbing, on the red stripe, and spaced at fifty (50) foot intervals or portions thereof, or
2. The pavement adjacent to the painted curbs shall be marked with minimum eighteen (18) inch in height block lettering with a minimum three (3) inch brush stroke reading: “NO PARKING - FIRE LANE.” Lettering shall be red and spaced at fifty (50) foot intervals or portions thereof.

Signage identifying fire lanes shall conform to the following: Fire lane signs shall be 18 inches tall x 12 inches wide with red letters on a white reflective background to read “Fire Lane No Parking Except For Emergency Vehicles” or similar verbiage as approved by the code official. Fire lane signs shall be placed 2 - 4 feet from the edge of the Fire Lane. The bottom of fire lane signs shall be between five (5) and seven (7) feet from the ground. Intermediate fire lane signs shall be set every one hundred (100) feet in a continuous fire lane. The BEGINS sign shall mark the beginning of a fire lane and shall be mounted below the first fire lane sign. The ENDS sign shall mark the ending of a fire lane and shall be mounted below the last fire lane sign. The BEGINS and ENDS signage may be omitted by the Code Official due to the location of the fire lane. Signs may be placed on a building when approved by the Fire Code Official.

Section 511.6 Maintenance. The owner, manager, or person in charge of any property upon which designated fire lanes have been established shall provide marking as required above and, shall maintain fire lanes at their expense as often as needed to clearly identify the designated area as being a fire lane.

Z. Delete Code Section: IFC 605.12.4 Item #5 “By other approved means.” Do not replace with any other additional language.

AA. Modify Code Section IFC 705.2.4 and replace with and add the following language:

705.2.4 Door Operation. Swinging fire doors shall close from the full open position and latch automatically. The door closer shall:

1. Exert enough force to close and latch the door from any partially open position.
2. Be UL listed and of hydraulic type, spring type shall not be allowed.

BB. Delete Code Section: IFC 806.1.1 Exception #2 “Trees shall be allowed within *dwelling units* in Group R-2 occupancies.” Do not replace with any other additional language.

CC. Insert New Code Section: IFC 901.4.6.1.1 (correlation: IBC 902.1.1.1) Insert the following language:

901.4.6.1.1 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 exclusively accessed from the electrical room, but the electrical room may be accessed from the fire riser room.

DD. Insert New Code Section: IFC 901.4.6.5 (correlation IBC 902.1.5) Insert the following language:

901.4.6.5 Temperature Sensors. Provide a low temperature sensor in the fire sprinkler riser room. Low Temperature Sensor shall be monitored to prevent freezing.

EE. Modify Code Section IFC 901.6.2 and replace with the following language:

901.6.3 Records. Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained and submitted in accordance with Section 107.3.

FF. Modify Code Section: IFC 903.2 (correlation: IBC 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

1. An approved automatic fire extinguishing system is required if the gross square footage of a building is equal to or greater than described in Sections 903.2.1 through 903.2.12.
2. The square footage used for calculating total "gross square footage" of a building or structure shall be measured using the outside dimensions of the total building or structure to include attached or detached buildings or structures.
3. To exempt detached buildings or structures from the total gross square footage from meeting the requirements to have fire sprinklers systems installed, the buildings or structures per legal lot or contiguous lots under common ownership, must be separated by twenty feet (20') and have 1-hour rated exterior walls on both buildings or structures so as not to have the combined total of their gross square footage applied to this section of the code.
4. For the purposes of section 903.2, "Fire separations" shall not be permitted to reduce the total gross square footage of a building or area for the purpose of calculating the fire sprinkler square footage requirements.
5. For the purposes of section 903.2, "story" shall be defined as any level of a structure, whether above or below grade capable of occupancy.
6. Additions to buildings or structures shall comply with all of the requirements of section 903.2 of this code for new buildings or structures. The entire building or structure, existing and proposed additions, shall comply with all of the requirements of the fire sprinkler section 903.2 of the fire code for new buildings and structures, when the total of all the additions to the building or structure made exceeds twenty-five (25) percent of the gross area of the building or structure.
7. When a building is used for more than one occupancy purpose or use, the entire building shall meet the requirements of the fire sprinkler section 903.2 of the Fire Code based on the requirements for the most restrictive occupancy group as

defined in Chapter 2 of the 2015 International Fire Code.

Exceptions: 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.

GG. Delete Code Section: IFC 903.2.1.1 (correlation: IBC 903.2.1.1) Replace with the following language:

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 gross square footage exceeds 6,000 (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.

HH. Delete Code Section: IFC 903.2.1.2 (correlation: IBC 903.2.1.2) Replace with the following language:

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 occupant load of 50 or more.
2. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

II. Delete Code Section: IFC 903.2.1.3 (correlation: IBC 903.2.1.3) Replace with the following language:

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 gross square footage 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.

JJ. Delete Code Section: IFC 903.2.1.4 (correlation: IBC 903.2.1.4) Replace with the following language:

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 gross square footage 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.

KK. Delete Code Section: IFC 903.2.2 (correlation: IBC 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. The gross square footage exceeds 6,000 square feet (557.5 m2).
2. A Group B *fire area* is located more than three stories above grade plane.

LL. Insert Code Section: IFC 903.2.2.1 (correlation: IBC 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.

MM. Delete Code Section: IFC 903.2.3 (correlation: IBC 903.2.3) Replace with the following

language:

Group E. An automatic sprinkler system shall be provided for Group E occupancies.

NN. Delete Code Section: IFC 903.2.4 (correlation: IBC 903.2.4) Replace with the following language:

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. The gross square footage 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. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

OO. Delete Code Section: IFC 903.2.7 (correlation: IBC 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. The gross square footage exceeds 6,000 square feet (557.5 m²).
2. A Group M *fire area* is located more than three stories above grade plane.
3. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m²).

PP. Delete Code Section: IFC 903.2.9 (correlation: IBC 903.2.7) 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. The gross square footage 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. A Group S-1 *fire area* used for the storage of commercial motor vehicles where the gross square footage exceeds 5,000 square feet (464 m²).
4. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

QQ. Delete Code Section: IFC 903.2.9.1 (correlation: IBC 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. The gross square footage exceeds 3,500 square feet (325 m²).
2. Buildings with repair garages servicing vehicles parked in *basements*.
3. A Group S-1 used for the repair of commercial motor vehicles where the gross square footage exceeds 3,500 square feet (325 m²).

RR. Insert New Code Section IFC 903.2.10.2 (correlation: IBC 903.2.10.2)

903.2.10.2 Group S-2 all other occupancies within a Group S-2. An automatic sprinkler system shall be provided throughout building with total gross square footage excess 12,000 square feet.

SS. Insert New Code Section IFC 903.3.1.1.3 (correlation: IBC 903.3.1.1.3)

903.3.1.1.3 Sprinkler installed under exterior projections. A canopy covering a door that is required to be marked as an exit shall be required to have fire sprinklers installed outside that door if the canopy extends more than 4 feet out from the door and is 12 feet or less in height from the ground regardless of whether the canopy is combustible or non-combustible. Canopies that have vehicle access under them with door openings shall be required to have fire sprinklers installed under the total canopy regardless of whether the canopy is combustible or non-combustible.

TT. Modify Code Section IFC 903.3.1.2 (correlation: IBC 903.3.1.2) and replace with the following language:

903.3.1.2 NFPA 13R sprinkler systems. Automatic sprinkler systems in Group R occupancies up to and including four stories in height in buildings not exceeding 60 feet (18288 mm) in height above grade plane shall be permitted to be installed throughout in accordance with NFPA 13R. Attics shall be protected throughout with an *automatic sprinkler system* installed in accordance with NFPA 13.

UU. Modify Code Section: IFC 903.2.11.1.3 (correlation: IBC 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*.

VV. Modify Code Section: IFC 903.4.2 (correlation: IBC 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.

WW. Insert Code Section: IFC 905.3.9 (correlation: IBC 905.3.9) Insert the following 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.

XX. Insert Code Section: IFC 907.1.4 (correlation: IBC 907.1.4) Insert the following language:

907.1.4 FACP (Fire Alarm Control Panels) Each building shall have no more than 1 FACP. Installation of fire alarm panel shall 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.

YY. Modify Code Section IFC 907.2 (correlation: IBC 907.2) and replace with the following language:

907.2 Where required—new buildings and structures. An *approved* fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.23 or when the gross square footage of a building is equal to or greater than the area as specified in sections 903.2.1 through 903.2.11 inclusive, which shall be more restrictive and provide occupant notification in accordance with Section 907.5, unless other requirements are provided by another section of this code.

Not fewer than one manual fire alarm box shall be provided in an *approved* location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or water flow detection devices. Where other sections of this code allow elimination of fire alarm boxes due to sprinklers, a single fire alarm box shall be installed. Manual fire alarm pull boxes "pull stations" shall be required where deemed necessary by the code official.

Where corridors and/or hallways are designed as the path of egress and are protected by fire sprinkler systems, they shall also be protected by smoke detection. Smoke detection shall be of the photo electric type or as approved by the Code Official.

Exceptions:

1. The manual fire alarm box is not required for fire alarm systems dedicated to elevator recall control and supervisory service.

2. The manual fire alarm box is not required for Group R-2 occupancies unless required by the *fire code official* to provide a means for fire watch personnel to initiate an alarm during a sprinkler system impairment event. Where provided, the manual fire alarm box shall not be located in an area that is accessible to the public.

ZZ.907.2.10.2 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. 907.2.10.3 Smoke alarms. Single- and multiple-station smoke alarms shall be installed in accordance with Section 907.2.11.

AAA. Modify Code Section IFC 907.2.11 and replace with the following language:

907.2.11 Single- and multiple-station smoke alarms. Listed single- and multiple-station smoke alarms complying with UL 217 shall be installed in accordance with sections 907.2.11.1 through 907.2.11.6 and NFPA 72. Smoke alarms provided as part of the building fire alarm system and shall comply with the following:

The fire alarm system shall comply with all applicable requirements in Section 907.

Activation of a smoke alarm in a dwelling unit or sleeping unit shall initiate alarm notification in dwelling unit or sleeping unit in accordance with section 907.5.2

Activation of a smoke alarm in a dwelling unit or sleeping unit shall not activate alarm notification appliance outside the dwelling unit or sleeping unit, provided that a supervisory signal is generated and monitored in accordance with section 907.6.6.

BBB. Modify Code Section IFC 907.6.3 (correlation: IBC 907.6.3) and replace with the following language:

907.6.3 Initiating device identification. The fire alarm system shall identify the specific initiating device address, location, device type, and floor level where applicable and status including indication of normal, alarm, trouble and supervisory status, as appropriate.

Exceptions:

Special initiating devices that do not support individual device identification.

Fire alarm systems or devices that are replacing existing equipment that does not support individual device identification.

CCC. Modify Code Section: IFC 907.6.6 (correlation: IBC 907.6.6) Replace with the following language:

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.

DDD. Modify Code Section: IFC 910.2.1 (correlation: IBC 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.

EEE. Modify Code Section: IFC 1008.3.3 (correlation: IBC 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.

FFF. Modify Code Section: IFC 1009.2 (correlation: IBC 1009.2) Insert item # 11 with the following language:

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

GGG. Add Code Section: IFC 1010.1.6.1 (correlation: IBC 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.

HHH. Modify Code Section: IFC 1010.1.9.1 (correlation: IBC 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.

III. Insert Code Section: IFC 1013.1.1 (correlation: IBC 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.

JJJ. Modify Code Section: IFC 1014.4 (correlation: IBC 1014.4) Insert item # 6 with the following language:

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.

KKK. Add Code Section: IFC 1015.9 (correlation: IBC 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 and 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.

LLL. Insert Code Section: IFC 1028.5.1 (correlation: IBC 1028.5.1) Insert the following language:

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

MMM. Insert Code Section: IFC 1030.4.3 (correlation: IBC 1030.4.3) Insert the following language:

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

NNN. Insert New Code Section: IFC Section 1107.1 Insert the following language:

SECTION 1107 REQUIREMENTS FOR FUEL FIRED APPLIANCES

1107.1 Protection of Fuel Fired Appliances. Where required or upon notification from the fire code official an existing building or tenant space containing a fuel fired appliance(s) shall be protected with 1 hour rated construction enclosure or a limited area sprinkler system

complying with Section 903.3.8.

Exception: Buildings protected by an approved automatic fire sprinkler system complying with Section 903.3.1.1 or 903.3.1.2.

OOO. Insert New Code Section: IFC Section 1107.2 Insert the following language:

1107.2 CSST Bonding Requirements in Rental Dwellings. All rental dwellings shall be bonded in accordance with sections 310.2.1 through 310.2.5 of the International Fuel Gas Code, unless deemed technically infeasible by the Code Official.

PPP. Insert New Code Section: IFC Section 1107.3 Insert the following language:

1107.3 CSST Bonding Requirements for Alterations, Repairs, or Additions. For other than rental dwelling units, where alterations, repairs or additions requiring a permit to occur, CSST shall be bonded in accordance with sections 310.2.1 through 310.2.5 of the International Fuel Gas Code, unless deemed technically infeasible by the Code Official.

QQQ. Insert New Code Section: IFC 1203.7 Insert the following language:

Section 1203.7 Shutdown of Emergency and Standby Power Systems. In addition to the requirements of NFPA 110 for a remote manual stop, a switch of an approved type shall be provided to shut down the generator. The switch shall be provided at an approved location.

RRR. Insert New Code Section: IFC 1203.8 Insert the following language:

Section 1203.8 Emergency Generator Signs. Main electrical disconnects and main breaker panels supplied by the generator shall be provided with approved signs.

Additionally, doors accessing emergency and standby power systems shall be provided with approved signs. When approved switches for emergency power shut-down are located remote from the fire alarm annunciator, an approved sign shall be provided at fire alarm annunciator. Approved signs shall contain the word CAUTION in black letters at least 2 inches (50 mm) high on a yellow background. Such warning signs shall be placed so as to be readily discernible.

SSS. Insert New section 3103.3.1.1

3103.3.1.1 Temporary special amusement buildings. Where the special amusement building is temporary, the sprinkler water supply shall be of an approved temporary means. The sprinkler piping shall be connected to a temporary water supply having sufficient capacity (flow and pressure) to supply residential or standard quick spray response sprinkler heads at a minimum design density of 0.15 gpm (.57 LPM) per square foot of protected floor area. The design shall be based on flowing the six most hydraulically remote sprinkler heads. Should the temporary amusement building contain less than six heads, the design shall assume that all heads are flowing simultaneously.

The temporary water supply may be connected to a domestic water line, a fire line, or temporary on-site storage tank as long as the minimum design densities are met. An indicating type control valve shall be installed in an accessible location between the sprinkler system and the connection to the water supply.

TTT. Insert New Section 3106.3.1

3106.3.3 Occupancy and means of egress. The number and location of emergency egress and escape routes shall be approved by the fire code official. Exits shall comply with Chapter 10 and be as remote from each other as practical and shall be provided as follows:

Occupant Load	Minimum Number of Exits
1 to 500	2
501 to 1,000	3
1,001 or 1,500	4
each additional 500 persons	36 additional inches of exit width

3106.3.4 Width. The aggregate clear width of exits shall be a minimum of 36 inches wide (914mm) for each 500 persons to be accommodated.

3106.3.5 Signs. Exits shall be identified with signs that read “EXIT”. The signs shall be weather-resistant with lettering on a contrasting background. The lettering shall be of sufficient height and brush stroke to be immediately visible from 75 feet (22,860mm). Placement of the exit signs shall be approved by the fire code official.

UUU. Insert New Code Section 3106.8

3106.8 Temporary water stations. When outdoor temperatures are expected to exceed 90°F (35°C), the event sponsor shall provide and maintain a minimum of one staffed water station for each 1,000-projected attendance. The water

VVV. Insert New Code Section 3107.12.3.1

3107.12.3.1 Public isolation. Cooking appliances or devices shall be isolated from the public by not less than 4 feet (1219 mm) or by a non-combustible 3-sided barrier between the equipment and devices and the public.

WWW. Insert New Code Section 3107.12.4.1

3107.12.4.1 Protection. Single-well cooking equipment using combustible oils or solids shall meet the following:

- 1) A noncombustible lid shall be immediately available. The lid shall be of sufficient size to cover the cooking well completely.
- 2) The cooking surface shall not exceed 288 square inches (18,580mm).
- 3) The equipment shall be placed on a noncombustible surface.

- 4) The equipment shall be separated from each other by a horizontal distance of not less than 2 feet (609mm).

XXX. Insert New Code Section 3107.20

3107.20 Concession stands, food booths, and retail booths. Concession stands, food booths and retail booths shall be a minimum of 20 feet (6096mm) shall be provided between every 150 linear feet (45,720mm) of booth space. A minimum of 30 feet (9144mm) shall be provided between booths used for cooking and the vehicles, generators, or any other internal combustion engines. A minimum of 30 feet (9144 mm) shall be provided between booths used for cooking and amusement rides or devices

YYY. Insert New Code Section 3107.17.3

3107.17.3 Assistance. Adult monitors with flashlights shall be available to provide assistance in the event someone becomes lost or disoriented. One adult monitor shall be provided for every 60 persons.

ZZZ. **Insert New Code Section 3108**

Section 3108 MAZES

3108.1 General. Mazes including, but not limited to corn stalk or hedge mazes, shall be in accordance with Section 3808.

3108.1.2 Safe refuge areas. Safe refuge areas shall be established outside of the maze or building and structure, and shall not be closer than 50 feet (15240mm).

3108.1.3 Paths. Paths throughout the maze shall be a minimum of 36 inches (914mm) in width and shall be clear and unobstructed width.

3108.1.4 Separation. A minimum of 20 feet (6096mm) shall be provided between mazes and buildings and structures. The 20-foot (6096mm) clearance shall be free from vegetation and obstructions.

3108.1.5 Means of egress. Each exit shall be a minimum of 6 feet (1828mm) wide.

3108.1.5.1 Travel distance. The maximum travel distance to reach an exit access shall not exceed 75 feet (22,860mm). The travel distance shall be determined by using the maze path.

3108.1.5.2 Number. The travel distance required to reach an exit access shall determine the number of exits required. Locking devices shall remain unlocked on exits when the maze is occupied.

3108.1.5.3 Exit signs. Exit signs shall be provided next to or above each exit. The lettering shall be a minimum of 12 inches (305mm) high with 2-inch (51mm) brushstroke. The signs shall read EXIT with lettering in a color contrasting to the sign's background.

3108.2 Event plans. The following plans shall be submitted to the fire code official.

3108.2.1 General fire safety plan. The plan shall include, but not be limited to procedures that shall be used to prevent over-drying of vegetation throughout the site, documentation of decorative materials flame-retardancy, the maximum number of attendees.

3108.2.2 Security plan. The plan shall document who shall provide security (e.g., off-duty police officers, sheriff's posse and employees). All security personnel shall be provided with a 2-way radio and flashlight.

3108.2.3 Evacuation plans. The plan shall document the responsibilities of all on-site employees. The plan shall also document how attendees will be evacuated, and where they will be evacuated.

3108.2.4 Maze rules. Maze rules shall be posted at maze entrance.

3108.3 Employee responsibilities. Each employee shall be familiar with the evacuation plan and with fire extinguisher locations. Documentation of training shall be provided to the fire code official.

3108.3.1 Guides. An employee shall be responsible for guiding a group of not more than 14 attendees through the maze. Each employee shall be provided with a minimum of one flashlight and two-way radio. The employees shall be responsible for detecting and reporting fire or smoke to a competent person posted at the maze main entrance and begin evacuation procedures.

3108.3.2 Main entrance employee. Each maze shall be manned by an employee at the entrance. The employee shall be capable of communicating with the employees and shall be provided with a cellular telephone. When the main entrance employee receives a report of smoke, fire or injury, the employee shall immediately call 9-1-1.

3108.4 Watering. Corn stalk and hedge mazes shall be provided with sufficient water and at a frequency that prevents the vegetation from becoming dry or brittle. Failure to comply with this provision is an imminent hazard and the fire code official shall issue a stop order.

3108.5 Buildings and structures. When buildings and structures are intended to be occupied by attendees, the building and structure shall comply with Section 3105.

AAAA. Insert New Code Section: IFC Section 3202 Insert the following language:

**Section 3202
Definitions**

3202.1 Definitions.

The following terms are defined in Chapter 2:

SPECULATIVE BUILDING. A Group S, F or M occupancy having an interior clear height greater than 12 feet (3657 mm) where high-piled storage may accrue and the client leasing or the occupant owner does not know the commodity that will be stored or the method of storage.

3206.2.2 Speculative building. Group S, F and M speculative buildings that have an interior clear height greater than 12 feet where high piled storage may accrue shall comply with this chapter.

3206.4.2 Sprinkler design

3206.4.2.1 General. The design of *automatic sprinkler systems* for the protection of Group M and S occupancies containing high-piled storage or high-challenge commodities over an area equal to or greater than 2,500 ft.² (232 m²) and designed for the protection of hazardous materials stored more than one pallet high in Group M, S or H occupancies, shall be in accordance with this section. This section does not apply to miscellaneous storage within the scope of NFPA 13.

3206.4.2.2 Requirements for all plan submittals. See Section 903.1.9 and 3201.3 for plan submittal requirements.

3206.4.2.3 Minimum design requirements for speculative warehouses. The design of the *automatic sprinkler system* for speculative warehouses shall be based on storage of a cartoned Class A non-expanded plastic to the available storage height. The storage height shall be determined by subtracting 48 inches (from the highest point of the roof above each system for ESFR and 30 inches for area density applications).

3206.4.2.4 Minimum requirements for client leased or occupant-owned warehouses. The design of an automatic sprinkler system for client leased or occupant owned buildings containing high piled storage shall be based on the requirements of NFPA 13. The responsible Fire Protection Contractor shall perform a survey of the building to determine commodity classification, storage configuration, building height and other information related to the development of an appropriate sprinkler system design. The Contractor shall also make reasonable efforts to meet with the building owner or operator to understand seasonal or customer related fluctuations to the stored commodities, storage height, and configuration.

The sprinkler design shall be based on the most demanding requirements determined through the on-site survey and discussions with the building owner or operator. Technical Report shall clearly define the basis for determining the commodity and sprinkler design selection, along with how the commodities will be isolated or separated, and the referenced design document(s), including NFPA 13 or the current applicable Factory Mutual Data Sheets. If a specific fire test is used as the basis of design, a copy of the fire test report shall be provided at the time of plan review.

3206.4.2.5 Required information at plan submittal. All plans, hydraulic calculations and technical reports shall be submitted with the plan submittal form. The individual submitting the design package shall ensure that all of the required information requested on the plan submittal form is included.

3206.4.2.6 Minimum plan information requirements. In addition to the requirements of NFPA 13, the following information shall be included in the plans or technical report.

3206.4.2.6.1 Class I-IV and Group A plastic commodities.

- A. An owner's certificate in accordance with NFPA 13. The design criteria, e.g., NFPA 13, Factory Mutual Data Sheet, or a specific fire test report.
- B. A Water Supply Flow & Pressure Test Report performed within 90 days of the plan submittal
- C. The type of design, e.g., Control Mode Density/Design Area Method; Specific Application Control Mode Method; Suppression Mode Method, including appropriate code references.
- D. A description of the stored commodities and how the commodity classification was determined.
- E. A layout of the proposed storage arrangement. If the storage is in racks, a plan and elevation detail illustrating rack heights, flue dimensions and arrangement. This detail is not required for speculation warehouses.
- F. The aisle dimensions between each storage array.
- G. If a high challenge commodity is separated using fire-resistive construction, the boundary of the fire-resistive construction shall be illustrated.
- H. A data sheet for the backflow preventer. If a data sheet is not available, the design professional shall include a statement addressing the minimum required pressure loss.
- I. A data sheet for each installed automatic sprinkler.
- J. A data sheet for each pipe hanger used to hang or support the sprinkler piping.
- K. If a fire pump will be installed or used, the manufacturer's factory test curve shall be included in the submittal.
- L. A cross-section view illustrating obstructions to the ceiling sprinklers, e.g., lights, structural members, cable trays, electrical bus ducts and HVAC ductwork.

3206.4.2.6.2 Hazardous materials. In addition to the requirements of this section, the following information shall be included in a *hazardous materials* technical report.

- A. A hazardous materials inventory statement
- B. For flammable & combustible liquids, an analysis of the miscibility of Class I liquids, the size and type of the packaging, the packaging materials of construction, and if the containers have a pressure relieving mechanism.
- C. For Level 2 or 3 aerosols, a statement indicating that the aerosols are cartoned or uncartoned.

3206.4.2.7 Identification of sprinkler system capabilities and limitations. A label shall be permanently installed at or adjacent to each sprinkler riser. When a building contains more than four risers, the sign shall be located at an approved location inside the building.

The minimum sign dimension is 6-inches (152 mm) high by 4-inches (101 mm) wide. The sign shall specify the capabilities and limitations of the *automatic sprinkler system*. The sign shall include the following information:

- a) The design base or basis, including the edition used
- b) A statement indicating if the sprinkler design is control mode density area method, control mode specific application, suppression mode, or any combination thereof.
- c) When used, all of the storage conditions stipulated NFPA 13 for Special Designs.
- d) The maximum storage height
- e) The minimum required aisle width
- f) If storage is in racks, the maximum rack width and minimum transverse and longitudinal flue widths.
- g) Storage Capabilities: Commodities designed to be protected by the automatic sprinkler system
- h) Limits on storage heights of idle wood and plastic storage
- i) Limits on storage heights of miscellaneous Group A plastic, tire and rolled paper storage
- j) Locations where in-rack sprinklers are required
- k) Locations where horizontal and/or vertical barriers are required
- l) Information explaining the manufacturer, sprinkler identification number, k-factor, and operating temperature of the overhead sprinklers protecting the high-piled storage.
- m) Fire Protection Contractor contact information

The following example illustrates a suggested label or sign:

Automatic Sprinkler System Capabilities & Limitations	
Stored Commodity	Class I water miscible flammable liquids in 1 & 5 gallon polyethylene containers in fiberboard cartons
Design Documents	NFPA 13, 2013 edition & NFPA 30
Design Type	Control Mode, Density/Area Method
Max. Storage Height	25 feet
Min. Aisle Width	8 feet
Max. Rack Width	9 feet
Flue Dimensions	Longitudinal: Min. 6 inches Transverse: Min. 3 inches
System Capabilities	Class I-IV commodities, stored commodity, solid pile or palletized Group A plastics to 12 feet; rack storage of Group A plastics to 25 feet.
Idle Pallets	6 feet maximum storage height
Tire Storage	5 feet maximum storage height
Rolled Paper Storage	5 feet maximum storage height
In-rack Sprinklers	In-rack sprinklers are required at each of 3 rack tiers containing the stored commodity. In-rack sprinklers are Tyco/Central FS-B, 17/32" orifice, QR 155°F element, SIN TY0041
Horizontal Barriers	Required at each rack tier containing the stored commodity
Ceiling Sprinkler	Tyco ELO-231B, 3/4" orifice, SR 286°F element, upright, SIN TY0030
FP Contractor	ABC Sprinkler Co. Designer: John Smith

BBBB. Delete Code Section: IFC Section 3301.2 Replace with the following language:

3301.2 Purpose This chapter prescribes minimum safeguards for construction, *alteration* and demolition operations to provide reasonable safety to life and property from fire and other emergencies during such operations.

CCCC. Insert New Code Section: IFC Section 3310.1.1 Insert the following language:

Section 3310.1.1 Construction Site Access. *Approved* fire apparatus access roads shall be provided for every facility, building or portion of a building as soon as construction commences. The fire apparatus access road shall comply with the requirements of Section 503.2 and this section and shall extend to within 100 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an *approved* route around the exterior of the building or facility.

Exception: The *fire code official* is authorized to increase the dimension of 100 feet (45 720

mm) where:

1. The building is equipped throughout with an *approved automatic sprinkler system* that is fully functional and installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.
2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an *approved* alternative means of fire protection is provided.

DDDD. Delete Code Section: IFC Section 3311.1 Replace with the following language:

3311.1 Stairways required. Where building construction exceeds 30-feet (9.144 mm) in height above the lowest level of fire department vehicle access, two temporary or permanent stairways shall be provided. As construction progresses, such stairways shall be extended to within one floor of the highest point of construction having secured decking or flooring.

EEEE. Delete Code Section: IFC Section 3313.1 Replace with the following language:

3313.1 Where required. In buildings required to have standpipes by Section 905.3.1, not less than one standpipe shall be provided for use during construction. Such standpipe shall be installed prior to construction exceeding 30-feet (9.144 mm) in height above the lowest level of fire department vehicle access. Such standpipe shall be provided with fire department hose connections at approved locations complying with Section 3311.1. As construction progresses, such standpipes shall be extended to within one floor of the highest point of construction having secured decking or flooring.

FFFF. Add Exception to Code Section: IFC 5601.4 Add the following language (Exception):

Exception: Persons in charge of fireworks display or pyrotechnic special effect operations may be less than 21 years of age if they possess a valid PGI display fireworks operator certification or equivalent certification approved by the fire code official.

Section 5704.2.9.6.1 (geographic limits in which the storage of Class I and Class II liquids in above-ground tanks outside of buildings is prohibited): In accordance with zoning ordinance and approved by code official

Section 5706.2.4.4 (geographic limits in which the storage of Class I and Class II liquids in above-ground tanks is prohibited): In accordance with zoning ordinance and approved by code official

Section 5806.2 (geographic limits in which the storage of flammable cryogenic fluids in stationary containers is prohibited): In accordance with zoning ordinance and approved by code official

Section 6104.2 (geographic limits in which the storage of liquefied petroleum gas is restricted for the protection of heavily populated or congested areas): In accordance with

zoning ordinance and approved by code official

GGGG. Delete Code Section: IFC Section 6104.2 Replace with the following language:

6104.2 Maximum capacity within established limits. Within the limits established by law restricting the storage of liquefied petroleum gas for the protection of heavily populated or congested areas, the installation of liquefied petroleum gas shall be prohibited unless specifically approved by the fire code official, and in that case the aggregate capacity of any one installation shall not exceed a water capacity of 1,000 gallons (3785 L) (see Section 3 of the Sample Legislation for Adoption of the *International Fire Code* on page xxi).

Exception: Containers shall not exceed a water capacity of 20 gallons, must be located outside of the building, and used for cooking purposes only.

HHHH. Insert Code Section: IFC 6104.3.3 Insert the following language:

6104.3.3 LP Gas Containers in Group R Occupancies. LP Gas shall not be stored or used inside of a building.

IIII. Add Code Section: IFC D104.5 Add the following language:

D104.5 Fire Department Access Points. A minimum of two means of *Approved* fire apparatus access points shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. Access points shall have a minimum clear width of 20 feet and shall support an imposed load of 75,000 lbs.

Exceptions: When alternative fire and life safety measures have been implemented, the number of required access points may be reduced to one.

JJJJ. Add Code Section: IFC D104.5.1 Add the following language:

D104.5.1 Remoteness. Where two fire apparatus access points are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses.

Exceptions: When alternative fire and life safety measures have been implemented, the distance between required access points may be reduced to a distance not less than one quarter of the length of the maximum overall diagonal dimension.

KKKK. Delete Code Section: IFC D105.3 Replace with the following language:

D105.3 Proximity to building. At least one of the required access routes meeting this condition shall be positioned along a total of $\frac{1}{4}$ of the building perimeter and located within the minimum and a maximum dictated by the table below, Table D105.3. The arrangement of the aerial fire apparatus access road shall be approved by the fire code official and may be

discontinuous with approval.

Building Height (ft)		Distance from Building (ft)	
Minimum	Maximum	Minimum	Maximum
30	40	15	50
40	50	15	40
50	N/A	15	30

LLLL. Delete Code Section: IFC D107.1 Exception #2 Replace with the following language:

2. The number of *dwelling units* on a single fire apparatus access road shall not be increased unless alternative fire and life safety measures have been provided, as determined by the *fire code official*. When alternative fire and life safety measures have been implemented, at no time shall the number of dwelling units on a single fire apparatus access road exceed 60 units.

MMMM. Insert New Code Section N104.2.1

N104.2.1 Materials. Shall be one of the following:

1. Noncombustible or limited-combustible materials.
2. Wood that is greater than 1/4-inch (6mm) nominal thickness
3. Wood 1/4-inch (6mm) nominal thickness or less that is pressure-treated fire-retardant wood meeting the requirements of NFPA 703, Standard for Fire Retardant Impregnated Wood and Fire Retardant Coatings for Building Materials. The product shall be marked or labeled by the manufacturer. The product shall not be painted or similarly modified until the material has been inspected and the marking or labeling verified, or provide documentation acceptable to the fire code official.

NNNN. **Insert New Code Section N107.2.1**

N107.2.1 Storage of combustible materials quantity. Combustible materials shall be limited to a one-day supply

OOOO. **Insert New Code Section N107.2.2**

N107.2.2 Location. Storage of combustible materials behind exhibits, booths, or tents is prohibited. Combustible materials, including but not limited to wood crates, paper and cardboard boxes, shall be stored outside the building in an approved area or in a storeroom having a fire-resistance rating of at least one hour and protected by an approved automatic fire-extinguishing system

PPPP. **Insert New Code Section N108.2.1**

N108.2.1 Travel distance. The maximum travel distance from any point in an exhibit to an exit access aisle shall not exceed 50 feet (15240mm).

QQQQ. Insert New Code Section N108.3.1

N108.3.1 Aisle width. Minimum aisle width inside a trade show or exhibition shall comply with the following:

Square Footage of Trade Show or Exhibition	Minimum Aisle Width
Greater than 15,000 square feet (1393m ²)	10 feet (3048mm)
5,000 square feet (465 square meters) to 15,000 square feet (1393m ²)	8 feet (2438mm)
Less than 5,000 square feet (465 m ²)	6 feet (1829mm)

July 20, 1992 – Ordinance 2158
(repealed and replaced in entirety) March 16, 1998 – Ordinance 2243
(repealed and replaced in entirety) April 19, 2004 – Ordinance 2467
(repealed and replaced in entirety) July 16, 2012 – Ordinance 2714
July 21, 2014 – Ordinance 2766
(repealed and replaced in entirety) May 1, 2017 – Ordinance 2843
March 5, 2018 – Ordinance 2877
(repealed and replaced in entirety) December 21, 2020 – Ordinance 2978