

RESOLUTION NO. 2016-20

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, DECLARING AS A PUBLIC RECORD THAT CERTAIN DOCUMENT KNOWN AS THE *INTERNATIONAL FIRE CODE, 2012 EDITION, AND AMENDMENTS, ADDITIONS AND DELETIONS THERETO AND THE 2016 AMENDMENTS TO FLAGSTAFF CITY CODE, TITLE 5, FIRE CODE*

RECITALS:

WHEREAS, the Mayor and City Council of the City of Flagstaff ("City") wish to declare the *International Fire Code, 2012 Edition and amendments, additions, and deletions thereto and 2016 Amendments to Flagstaff City Code, Title 5, Fire Code*, to be a public record to be maintained by the City Clerk for the convenience of its citizens and to permit its adoption by reference into the City Code; and

WHEREAS, the City Council finds that three copies of the *International Fire Code, 2012 Edition and amendments, additions, and deletions thereto and 2016 Amendments to Flagstaff City Code, Title 5, Fire Code*, have been placed on file with the City Clerk as a public record available for inspection by the public until such time as the City Council shall adopt a later edition of the Flagstaff Fire Code.

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1: That the *International Fire Code, 2012 Edition and amendments, additions, and deletions thereto and 2016 Amendments to Flagstaff City Code, Title 5, Fire Code*, three copies of which are on file in the office of the City Clerk, are hereby declared to be a public record.

PASSED AND ADOPTED by the City Council and approved by the Mayor of the City of Flagstaff this 20th day of September, 2016.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

*International Fire Code, 2012 Edition and Amendments, Additions and Deletions Thereto
and 2016 Amendments to the Flagstaff City Code, Title 5, Fire Code*

5-02-001-0005 AMENDMENTS

The following provisions shall have the effect of either amending, adding to, or deleting from the International Fire Code, ~~2006~~ [2012](#) Edition:

CHAPTER 1, IFC, Administration**Amend Section 101.1 Title, to read:**

These regulations shall be known as the Fire Code of City of Flagstaff, hereinafter referred to as "this code."

Amend Section 102.7 entitled "Reference codes and standards", by adding:

Referenced codes and standards as listed in Chapter 80, and in this document are adopted in their entirety.

Amend Section 104.6, Official Records, to read:

The fire code official shall keep official records as required by Sections 104.6.1 through 104.6.4. Such official records shall be retained as prescribed by state and city archival regulations.

Amend Section 105.6.2 entitled "Amusement Buildings" to read:

An operational permit is required to operate any amusement building or special event as required by the fire code official.

Amend Section 105.6.30 Open Burning, by deleting:

Exception: Recreational fires.

Amend Section 108.1 entitled "Board of appeals established", to read:

The Building and Fire Code Board of Appeals created in Chapter 2-02 of the Flagstaff City Code shall hear and decide appeals of orders, decisions or determinations made by the fire official relative to the application and interpretation of this code.

Amend Section 109.4 entitled "Violation penalties", to read:

Persons who violate a provision of this code or 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 a provision or provisions of this code, shall be guilty of a class one misdemeanor and upon conviction shall be punishable by a fine and/or imprisonment set forth by the governing laws of the jurisdiction. Each separate day or any portion thereof, during which any violation of this Code occurs or continues, shall be deemed to constitute a separate offense.

CHAPTER 2, IFC, Definitions**Amend Section 202 entitled "Definitions; Detached Building" to read:**

DETACHED BUILDING: A separate stand alone structure that is separated from other

buildings in accordance with the requirements of the International Building Code, greater than 200 square foot and/or within 15 feet of the existing or primary structure. This classification shall include, but not limited to the following:

Casitas
Gazebos
Storage
Sheds
Garages
Green
Houses
Ramadas
Barns
Shops

Amend Section 202 entitled Definitions, by adding:

SPECULATIVE WAREHOUSE. A building designed for high piled combustible storage without a known type or commodity designation specified.

SKY LANTERN. A device designed to carry an open flame as an airborne light. Also known as, but not limited to, Kongming Lantern, Whish Lantern, Sky Candle, Fire Balloon.

CHAPTER 3, IFC, General Requirements

Amend Section 308 entitled "Open Flames" by adding:

308.1.1.1 Sky Lanterns. The lighting of, and/or release of Sky Lanterns is prohibited.

Amend Section 308.1.5 Location near combustibles, to read:

Candles or other open flame devices shall not be left unattended. Open flames shall be extinguished when direct supervision is unavailable.

BBQ grills shall be for outdoor use only. BBQ grills may be used on open balconies if proper clearances from combustibles are maintained. For listed appliances, follow the manufacturer's instructions for proper clearances. Instructions for listed grills must be kept on premises and be made available to the Fire Department. BBQ grills shall never be used directly under unprotected combustible construction. Units must be supported by sturdy, non-combustible construction. In the absence of manufacturer's instructions and for all unlisted appliances, clearances shall be maintained as follows: from the front, sides, floor, and rear of unit 36 inches.

Exception: A minimum of 6 inches may be allowed to the rear of BBQ grills equipped with a metal lid, as long as combustible construction does not exceed the horizontal plane of the unit, i.e. above the unit.

CHAPTER 5, IFC, Fire Service Features

Amend Section 503.1.2 Additional Access, by adding:

Approved secondary access shall be provided to all subdivisions and developments when fire access exceeds 1200 feet in length. Secondary access shall be provided for all one or two family residential developments that exceed 30 units/lots.

Amend Section 503.2.3 Surface, to read:

Fire apparatus access roads shall be designed and maintained to support a minimum 80,000 pounds gross vehicle weight shall be surfaced as to provide all weather driving capabilities. A maintenance agreement for private roads or other fire access may be required showing the responsibility for roadway maintenance and snow plowing.

Amend Section 503.2.4 entitled "Fire Service Features; Fire Apparatus Access Roads; Specifications; Turning Radius", to read:

The required minimum turning radius of a fire apparatus access road shall be 35 feet inside, 55 feet outside, or 45 feet on center

Amend Section 503.2.5 Dead ends, by adding:

There shall be no parking or other obstructions in fire apparatus turnaround areas that would impair turning of apparatus. When parking or other design features are desired, the proper design must be approved. Accumulation of snow must also be accounted for to prevent winter time obstructions.

Amend Section 503.2.7 entitled "Fire Service Features; Fire Apparatus Access Roads; Specifications; Grade, to read:

The gradient for a fire apparatus access road shall not exceed 10 percent on straight sections of roadway and 5 percent side slope on turnarounds and curves

Amend Section 504.2 Maintenance of exterior doors and openings, by adding:

Exterior doors and openings required by this code or the building code shall be maintained readily accessible for emergency access by the fire department. Exterior doors shall be supplied with an approved exterior handle

Amend Section 505.1 Address Numbers, by adding:

Commercial address numbers shall be a minimum of 6 inches high with a minimum stroke width of 0.5 inch. Buildings in multi-building complexes must be marked with 12" minimum numbers. When address numbers attached to buildings are insufficient to be seen from the street, additional numbers may be required at a location approved by the Chief. Approved identification shall also be provided on the rear door(s) at any location where access into the building may be difficult to determine.

Amend Section 507.3 Fire Flow, to read:

Fire flow tests used to design sprinkler systems, standpipe systems, and fire supply mains shall be performed by a contractor licensed by the State of Arizona, and who has a current business license issued by the City of Flagstaff. The test shall be witnessed by the Flagstaff Fire Department.

Amend Section 508 Fire Protection Water Supplies, by adding:

508.6 Modifications. When automatic fire sprinkler systems or other approved fire protection systems or features are installed, the specifications of this section may be modified at the discretion of the Chief, when in his opinion, fire fighting or rescue operations will not be impaired.

Amend Section 507.1 Required water supply, by adding:

When any portion of the facility or building protected is in excess of 300 feet from a water supply on a public street for commercial occupancies and 500 feet from a water supply for residential single family and duplex occupancies, as measure by an approved route

around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the Chief.

Amend Section 507.2 Type of water supply, by adding:

Water supply for a major system component as described by the American Water Works Association must provide a continuous and uninterrupted supply of fire protection water through redundancy. Fire mains in excess of 1,000 feet in length or which have more than 3 hydrants affixed shall be looped to a second source of water. All fire mains hereafter constructed shall be a minimum of 8 inch diameter but in all cases shall be of sufficient size to adequately supply the required fire flow.

Amend Section 507.3 Fire flow, to read:

The method for determining fire flow requirements for buildings and subdivisions shall be Appendix B Fire Flow Requirements for Buildings.

CHAPTER 6, IFC, Building Services and Systems

Amend Section 606.8 Refrigerant detector, to read:

Machinery rooms shall contain a refrigerant detector with an approved and distinctive audible and visual alarm. The alarm notification devices shall comply with the audible and visual requirements of the *National Fire Alarm Code*, NFPA 72. A supervisory alarm shall be activated when the mechanical ventilation system fails. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant from a leak will concentrate. The alarm shall be activated at a value not greater than the corresponding TLV-TWA values shown in the International Mechanical Code. Detectors and alarms shall be placed in one or more locations to assure notifications of all occupants.

CHAPTER 9, IFC, Fire Protection Systems

Amend Section 901.2 entitled "Construction documents", by adding:

Automatic sprinkler systems designed in accordance with NFPA 13, 13D and 13R shall be submitted and reviewed bearing a review certification and signature of a minimum level III NICET Certified Engineering Technician (CET) or Arizona registrant. Fire alarm systems designed in accordance with NFPA 72 shall be reviewed and submitted bearing a review certification and signature of a minimum level III NICET Technician or Arizona registrant.

Amend Section 901.3 by adding:

901.3.1 Modifications. No person shall remove or modify any fire protection system installed or maintained under the provisions of this code without prior approval by the fire chief or fire code official.

Amend Section 901.6.2 entitled "Records", to read:

Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained on the premises for a minimum of three years and deficiencies shall be copied to the authority having jurisdiction within thirty (30) business days.

Amend Section 901.6, by adding:

901.6.3 Inspection and testing. All fire protection systems shall be inspected and tested annually by a contractor licensed by the State of Arizona and who has a current business

license issued by the City of Flagstaff to work on the specific type of fire protection system being inspected or tested.

Amend Section 903.2 entitled "Fire Protection Systems; Automatic Sprinkler Systems; Where required", by adding:

In addition to the requirements of the fire and building codes, an approved automatic monitored sprinkler system shall be installed throughout all levels of all new Group B, E, F, M, U and S occupancies 5,000 square feet (464m²) or greater and in all buildings over 3 stories in height regardless of the total square footage.

Such systems shall be in accordance with the International Fire Code, International Building Code and installed in accordance with NFPA 13, 13D or 13R as specified by the fire code official.

Notwithstanding the foregoing, an automatic monitored fire sprinkler system may be installed in any building regardless of floor area.

Amend Section 903.2.1.1 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-1, to read:

An automatic sprinkler system shall be provided for Group A-1 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m²).
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 multi theater complex.

Amend Section 903.2.1.3 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-3", to read:

An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m²).
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.

Amend Section 903.2.1.4 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-4", to read:

An automatic sprinkler system shall be provided for Group A-4 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m²).
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.

Amend Section 903 entitled "Fire Protection Systems; Automatic Sprinkler Systems; Where required; by adding:

903.2.2.1 Group B

An automatic monitored sprinkler system shall be provided throughout all Group B occupancies where any of the following exist:

1. Where Group B fire area is 5,000 square feet (464m²) and greater, or
2. Fire area is located more than three stories above grade

Amend Section 903.2.2 Ambulatory care facilities, to read:

903.2.2.2 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, whether rendered incapable by staff or staff has accepted responsibility for care recipients already incapable.
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 where such care is provided as well as all floors below, and all floors between the level of ambulatory care and the nearest *level of exit discharge*, including the *level of exit discharge*.

Amend Section 903.2.3 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group E", to read:

An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 5000 square feet (462m²) in area.
2. Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.

Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.

Amend Section 903.2.4 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group F-1", to read:

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

1. A Group F-1 fire area exceeds 5,000 square feet (464m²).
2. A Group F-1 fire area is located more than three stories above grade plan.
3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 5,000 square feet (464m²).
4. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

Amend Section 903.2.4.1 Woodworking operations, to read:

An automatic sprinkler system shall be provided throughout all F-1 occupancy fire area that contain woodworking operations in excess of 2500–5000 square feet in area (464 m²) which generate finely divided combustible waste or which use finely divided combustible materials

Amend Section 903.2.7 entitled "Fire Protection Systems; Automatic Sprinkler Systems; Where required; Group M", to read:

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

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

Amend 903.2.8 entitled Group R, to read:

An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R-1 and R-2 fire area.

Amend Section 903.2.9 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group S-1", to read:

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

1. A Group S-1 fire area exceeds 5,000 square feet (464m²).
2. A Group S-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 5,000 square feet (464m²).
4. A Group S-1 fire area used for the storage of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m²).

Amend Section 903.2.9.1 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Repair Garages", to read:

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

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 5,000 square feet (464m²).
2. Buildings no more than one story above grade plane, with a fire area containing a repair garage exceeding 5,000 square feet (464m²).
3. Buildings with repair garages servicing vehicles parked in basements.
4. A Group S-1 fire area used for the repair of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m²).

Amend Section 903.2.10 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group S-2 enclosed parking garages", to read:

An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.6 of the International Building Code as follows:

1. Where the fire area of the enclosed parking garage exceeds 5,000 square feet (464m²)

2. Where the enclosed parking garage is located beneath other groups.

Exception: Enclosed parking garages located beneath Group R-3 occupancies.

Amend Section 903.3.1.1.1 entitled "Fire Protection Systems; Automatic Sprinkler Systems; Installation requirements; Exempt locations", to read:

Automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from any room merely because it is damp, of fire-resistance rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official.
3. Generator and transformer rooms separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire resistance rating of not less than 2 (two) hours.
4. Fire service access elevator machine rooms and machinery spaces.
5. Machine rooms and machinery spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the International Building Code.

Amend Section 903.3.5 entitled "Fire Protection Systems; Automatic Sprinkler Systems; Installation requirements; Water supplies", by adding:

The introduction of any toxic substance shall be prohibited. If a sprinkler system is connected to a potable water supply, the use of solutions other than that of pure glycerin (C.P. or U.S.P. 96.5 percent grade) or propylene glycol shall not be permitted."

Amend Section 903.3 installation requirements, by adding:

903.3.8 Speculative warehouse special requirements

Speculative warehouses shall comply with Chapter 32, and this Chapter. Where the maximum allowable storage height can exceed 12 feet (3658mm) but less than 22 feet (6706mm) the following shall apply:

1. Design for a Class IV non-encapsulated commodity, double row rack storage, 8 foot (2,438mm) aisles and 286 degree sprinklers; and
2. Hydraulically design to protect the maximum possible clear height of storage without in-rack sprinklers; and
3. Add 500 GPM at the base of the riser for inside hose to hydraulic calculations, and provide the hose stub-outs for future installation or use existing columns for hose installing locations.

Where the maximum allowable storage height can exceed 22 feet (6706mm) the following shall apply:

1. Hydraulically design system to protect the maximum possible clear height of storage without in-rack sprinklers; and
2. Provide .64 GPM per square foot over the hydraulically most remote 2,000 square

feet (609600mm); or use an approved alternative design such as ESFR sprinklers.

Amend Section 905 Standpipe Systems, by adding:

Section 905.12 Other Standpipe Systems Required Locations. Notwithstanding the previously specified required locations, approved standpipe systems shall also be required in: Commercial buildings greater than two stories in height.

Amend Section 912.2 Location, to read:

With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located such that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. Fire department connections (FDC) shall be remote from the building if possible.

Amend Section 912.2.1 Visible Location, to read:

Fire department connections shall be located at the primary entrance to the site, fully visible and recognizable.

CHAPTER 12, IFC, Reserved

Amended Chapter 12, by adding:

Chapter 12 - Special Event Requirements

Section 1201 Definitions

Special Event: An organized activity involving the use of, or having impact upon, city property, city facilities, parks, sidewalks, street areas or the temporary use of city property in a manner that varies from its current land use.

Exhibit: A space or portable structure used for the display or products or services.

Outdoor assembly event: Private or public event conducted outdoors including but not limited to festivals, and or celebrations having the projected attendance or 500 people or more persons throughout the event or conferring 50 or more attendees by the permitted or temporary installation of barricades or fencing.

Mobile Food truck: A licensed motorized vehicle or mobile food unit which is temporarily or permanently staged on a property where food items are sold to the general public.

1201.1 Scope An assembly of persons with a common purpose to watch or participate in an activity that is different than the normal course of business for a location. The event may include entertainment, food/beverage, and use of temporary fencing, stands, structures or tents. Events may include but not limited to concerts, circuses, fairs, festivals, parades, trade shows, exhibits, mazes or similar celebrations Special events may increase the impact or disruption normal traffic flow or involve road closures.

1202 General Requirements

1202.1 Permit – permit shall be required as set forth by the City of Flagstaff Special Event Permit Review Process.

1202.2 Site Plans – detailed site plans shall be submitted with the special events permit Outdoor Events.

1202.3 Permits and site plans shall be submitted per the cities special event process and shall include but not limited to:

1. Means of egress
2. Location and width of exits and aisles
3. Location of exit signs
4. Location of fencing or means used to confine attendees
5. Total squared foot of enclosed space
6. Location, size and arrangement of all tents, booths and cooking equipment
7. Location and access of emergency vehicle access roads
8. Location of fire protection equipment
9. Type and location of heating and electrical equipment where applied.

1202.4 Access for firefighting and medical services -- Approved vehicle access for firefighting and EMS services.

1202.5 Combustible Storage - combustible materials stored at special events shall be stored in approved locations and containers.

1202.6 Crowd mangers – crowd mangers shall be provided when the code official determines that an indoor or outdoor gathering warrants crowd control.

1202.7 Fire Extinguishers - Fire extinguishers shall be in accordance with section 906.

1202.8 Fire Watch - fire watch shall be in accordance with section 115.

1202.9 Housekeeping -the special events and related areas shall be kept free from combustible debris at all times

1203 Outdoor Assembly Events

1203.1 General – Outdoor events shall be in accordance with this section and section 10.

1203.2 Exits - Exits shall comply with chapter 10, be as remote from each other as practical and comply with table below.

Outdoor Events Table 1203

Occupant Load	Minimum number of Exits
1-500	2
501-1000	3
1001-1500	4
Each additional 500 Persons	36” of additional exit width for each exit

1203.3 Exit Width- The aggregate clear width of exists shall be a minimum of 36 “width wide for each 500 persons to be accommodated

1203.4 Exit Signs Exits shall be identified with signs that read -EXIT – The signs shall be weather resistant with letters on a contrasting background. Lettering shall be of sufficient height and brush stroke to be visible within in 75 feet. Placement of the exit signs shall be approved by the fire code official.

1204 - Outdoor Concerts / Crowd Management

1204.1 Front Stage Isle/Separation - Minimum 10 foot Aisle space for front of stage- Adequate Crowd manager’s during the concert or event to maintain minimum widths. Main Isle shall be a minimum of 10 feet in width or a minimum required means of egress width whichever is greater and shall be maintained during the event.

Isle Width Table 1204

Square Footage of Exhibition	Minimum Isle Width
Greater than 15,000 Square Feet	10 Feet
5000- to 15000 Square Feet	8 feet
Less than 5000 Square Feet	6 feet

1205 - Mobile Food Vehicles

1205.1 General

Mobile food vehicles that are temporary or permanently stored on a property where food items are processed or prepared and sold to the public shall comply with this section.

Exception: Food Peddlers operating a retail food establishment from a vehicle designated to be readily mobile in which food is sold or given away but not composed compounded, thawed, reheated, cut, cooked, processed, or prepared.

1205.2 Kitchen Hood

A type 1 hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors. Commercial kitchen exhaust hoods shall comply with the requirements of the *International Mechanical Code*

1205.3 Maintenance

Hoods shall be inspected, tested and marinated in accordance with NFPA 96
 Inspection and testing – Kitchen hood extinguishing systems shall be inspected every 6 months by a registered fire protection system contactor
 Fire Extinguishers 2-A-10BC rated Dry Chemical extinguisher shall be provided within 30 feet or deep fat fryers using animal oil. An approved class K extinguisher shall be provided within 30 feet of deep fat fryers using vegetable oils.

1205.4 Liquefied Petroleum Gas (LP Gas). LP gas use shall be in accordance with Chapter 61 and NFPA 58

1205.5 Maximum number and quantity – A maximum of 2 LP gas containers with a total aggregate water capacity of 25 gallons is permitted at one mobile food vehicle

1205.6 LP Gas Cylinder Hoses - Hoses shall be designed for a working pressure of 350 PSI with a safety factor of 5 to 1 and shall be consistently marked with LP gas, propane 350 PSI working pressure and a manufacturers name or trademark.

Hose assemblies after the application of couplings shall have a design capability or 700 PSIG. Hose assemblies shall be leak tested at the time of installation at not less than the operating pressure of the system in which they are installed.

1205.7 Location Mobile food vehicles shall not be located within 20 feet of tents canopies and membrane structure.

CHAPTER 50, IFC, Hazardous Materials – General Provisions

Amend Section 5003.2.2.1 Design and construction to read:

(2) Piping and tubing shall be identified in accordance with ASME A13.1 to indicate the material conveyed to indicate the material conveyed and the direction of flow. Pipe labels shall be provided at a maximum spacing of 20 feet at each change of direction and on both sides of walls or floor/ceiling penetrations.

Amend section 5003.2.2.1 Design and constriction and add:

(7) Pressure tests of piping constructed of non- metallic material used to convey hazardous materials shall be limited to hydrostatic tests. Pneumatic pressure testing of non-metallic piping shall not be permitted.

Amend Section 5004.9 Emergency alarm to read:

An approved manual emergency alarm system shall be provided in buildings, rooms or areas used for storage of hazardous materials. The emergency alarm system shall be designed using the manual fire alarm requirements of the *National Fire Alarm Code, NFPA 72*. Emergency alarm initiating devices shall be installed outside of each interior exit or exit access door of the storage buildings, rooms or areas. Activation of a emergency alarm-initiating device shall sound a local alarm to alert occupants of an emergency situation involving hazardous materials. an audible signal distinctly different than that of the fire alarm signal. Emergency alarm notification devices shall be yellow or amber in color.

CHAPTER 53, IFC, Compressed Gases

Amend Section 5301.1 Scope, to read:

Storage, use and handling of compressed gases in compressed gas containers, cylinders, tanks and systems shall comply with this chapter, including those gases regulated elsewhere in this code and National Fire Protection Association standard, *NFPA 55, Compressed Gases and Cryogenic Fluids, 2010 edition*. Where there is a conflict between the *International Fire Code, 2012 edition* and *NFPA 55, 2010 edition*, the more restrictive provision shall apply. Partially full compressed gas containers, cylinders or tanks

containing residual gases shall be considered as full for the purpose of the controls required.

Amend Section 5302.1 Definitions to add:

Point of Use means detection shall be provided at each location where material or chemical is placed into action.

Amend Section 5303.16.10.1 Insulated Liquid Carbon Dioxide Systems to add:

(A) Gas detection shall be provided at each point of use whether the cylinder vessel, and/or container are located inside or outside the structure. Basements and/or subterranean spaces that could be physically entered, and which contain CO2 process lines, shall have gas detection.

(B) When a CO2 gas detection device reaches 15,000 ppm a local warning/supervisory alarm shall sound at a normally occupied location, and/or transmit a supervisory signal to a supervising station if system is monitored off-site.

(C) When a CO2 gas detection device reaches 30,000 ppm a general evacuation signal shall sound for the occupancy and transmit a gas specific alarm to a supervisory station if system is monitored off-site.

(D) Where there are less than two 50 lb. DOT approved cylinders stored and/or used inside or outside the structure, per system, gas detection and alarm systems shall not be required.

CHAPTER 55, IFC, Cryogenic Fluids

Amend Section 5501.1 Scope to read:

Storage, use and handling of *cryogenic fluids* shall comply with this chapter and National Fire Protection standard NFPA 55, Compressed Gases and Cryogenic Fluids Code, 2010 edition. Where there is a conflict between the International Fire Code, 2012 edition and NFPA 55, 2010 edition, the more restrictive provision shall apply. *Cryogenic fluids* shall also comply with Chapter 50 for general requirements. Partially full containers containing residual *cryogenic fluids* shall be considered as full for the purposes of the controls required.

CHAPTER 56, IFC, Explosives and Fireworks

Amend Section 5601.2.4 Financial responsibility, to read:

Before a permit is issued, as required by Section 5601.2, the applicant shall file with the jurisdiction a corporate surety bond in the principal sum of \$1,000,000 or a public liability insurance policy for the same amount, for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The *fire code official* is authorized to specify a greater or lesser amount when, in his or her opinion, conditions at the location of use indicate a greater or lesser amount is required. Government entities shall be exempt from this bond requirement.

Amend Section 5608 by deleting it in its entirety.

Amend Section 5609 by deleting it in its entirety.

APPENDIX D Fire Apparatus Access Roads**Amend Section D102 Required Access to read:**

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be an accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at last 80,000 pounds.

~~Amend Section 101.1, Title. To read:~~

~~These regulations shall be known as the Fire Code of The City of Flagstaff, hereinafter referred to as "this code."~~

~~Amend Section 104.6, Official Records, to read:~~

~~The fire code official shall keep official records as required by Sections 104.6.1 through 104.6.4. Such official records shall be retained as prescribed by state and city archival regulations.~~

~~Amend Section 105.6.2, Amusement Buildings, to read:~~

~~Amusement buildings or special event. An operational permit is required to operate an amusement building or special event.~~

~~Amend Section 105.6.30 Open Burning by deleting:~~

~~Exception: Recreational fires.~~

~~Amend Section 108, Board of Appeals, as follows:~~

~~The Building and Fire Code Board of Appeals created in Chapter [2-02](#) of the Flagstaff City Code shall hear and decide appeals of orders, decisions or determinations made by the fire official relative to the application and interpretation of this code.~~

CHAPTER 3, IFC, General Precautions Against Fire

~~Amend Section 308.3.3, Location Near Combustibles, by adding:~~

~~Candles or other open flame devices shall not be left unattended. Open flames shall be extinguished when direct supervision is unavailable.~~

~~BBQ grills shall be for outdoor use only. BBQ grills may be used on open balconies if proper clearances from combustibles are maintained. For listed appliances, follow the manufacturer's instructions for~~

~~proper clearances. Instructions for listed grills must be kept on premises and be made available to the Fire Department. BBQ grills shall never be used directly under unprotected combustible construction. Units must be supported by sturdy, non-combustible construction. In the absence of manufacturer's instructions and for all unlisted appliances, clearances shall be maintained as follows: from the front, sides, floor, and rear of unit 36 inches.~~

~~Exception: A minimum of 6 inches may be allowed to the rear of BBQ grills equipped with a metal lid, as long as combustible construction does not exceed the horizontal plane of the unit, i.e. above the unit.~~

CHAPTER 5, IFC, Fire Service Features

Amend Section 503.1.2, Additional Access, by adding:

~~Approved secondary access shall be provided to all subdivisions and developments when fire access exceeds 1200 feet in length. Secondary access shall be provided for all developments that exceed 50 units/lots.~~

Amend Section 503.2.3 Surface. By adding:

~~Fire apparatus access roads shall be designed and maintained to support a minimum 80,000 pounds gross vehicle weight. A maintenance agreement for private roads or other fire access may be required showing the responsibility for roadway maintenance and snow plowing.~~

Amend Section 503.2.5 Dead Ends, by adding:

~~There shall be no parking or other obstructions in fire apparatus turnaround areas that would impair turning of apparatus. When parking or other design features are desired, the proper design must be approved. Accumulation of snow must also be accounted for to prevent winter time obstructions.~~

Amend Section 503.2.7 Grade. By adding:

~~The gradient for a fire apparatus access road shall not exceed 10 percent on straight sections of roadway and 5 percent side slope on turnarounds and curves.~~

Amend Section 503, Fire Apparatus Access Roads, by adding Section 503.7 as follows:

~~503.7 Modifications. When automatic fire sprinkler systems or other approved fire protection systems or features are installed, the specifications of this section may be modified at the discretion of the Chief, when in his opinion, fire fighting or rescue operations will not be impaired.~~

Amend Section 504.2 Maintenance of exterior doors and openings, by adding:

~~Exterior doors and openings required by this code or the building code shall be maintained readily accessible for emergency access by the fire department. Exterior doors shall be supplied with an approved exterior handle.~~

Amend Section 505.1 Address Numbers, by adding:

~~Commercial address numbers shall be a minimum of 6 inches high with a minimum stroke width of 0.5 inch. When address numbers attached to buildings are insufficient to be seen from the street, additional numbers may be required at a location approved by the Chief. Approved identification shall also be provided on the rear door(s) at any location where access into the building may be difficult to determine.~~

Amend Section 508 Fire Protection Water Supplies, by adding Section 508.6, Modifications, as follows:

~~508.6 Modifications. When automatic fire sprinkler systems or other approved fire protection systems or features are installed, the specifications of this section may be modified at the discretion of the Chief, when in his opinion, fire fighting or rescue operations will not be impaired.~~

Amend Section 508.1 Required water supply, by adding:

~~When any portion of the facility or building protected is in excess of 300 feet from a water supply on a public street for commercial occupancies and 500 feet from a water supply for residential single family and duplex occupancies, as measure by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the Chief.~~

~~Amend Section 508.2 Type of water supply, by adding 508.2.3, Water Supply, as follows:~~

~~508.2.3 Water Supply. Water supply for a major system component as described by the American Water Works Association must provide a continuous and uninterrupted supply of fire protection water through redundancy. Fire mains in excess of 1,000 feet in length or which have more than 3 hydrants affixed shall be looped to a second source of water. All fire mains hereafter constructed shall be a minimum of 8 inch diameter but in all cases shall be of sufficient size to adequately supply the required fire flow.~~

~~Amend Section 508.3 Fire Flow, by adding:~~

~~The method for determining fire flow requirements for buildings and subdivisions shall be Appendix B Fire Flow Requirements for Buildings.~~

~~CHAPTER 6, IFC, Building Services and Systems~~

~~Amend Chapter 6 by adding Section 610 Apartment-Type Buildings, as follows:~~

~~Section 610.1 Apartment-Type buildings. Buildings or parts of buildings classified as R1 or R2 are required to utilize exterior wall coverings that have a minimum Class A Flame Spread Rating.~~

~~CHAPTER 7, IFC, Fire Resistance-Rated Construction~~

~~Amend Section 703 Fire Resistance-Rated Construction. By adding:~~

~~Section 703.4 Roof Coverings. Roof coverings shall be non-combustible. Wood shake roof coverings are prohibited.~~

~~Exception: Wood shakes may be used as decorative accent coverings when approved by the Community Development Department and Fire Department. Historical buildings desiring to use wood shakes shall be treated on a case-by-case basis with review by both the Community Development Department and the Fire Department.~~

~~CHAPTER 9, IFC, Fire Protection Systems~~

~~Amend Section 903, Automatic Sprinkler Systems, by adding new Section 903.2.14, Other Sprinkler System Required Locations, as follows:~~

~~Section 903.2.14 Other Sprinkler System Required Locations. Notwithstanding the previously dictated required locations, automatic fire sprinkler systems shall also be required in:~~

- ~~1. Commercial buildings greater than 5,000 square feet.~~
- ~~2. Commercial buildings greater than three stories in height.~~
- ~~3. Buildings and structures within Traditional Neighborhood Districts.~~

~~When there are practical difficulties in complying with this provision, alternate methods and materials complying with the intent of the code may be considered by the code official. Refer to Section 104.8.~~

~~Amend Section 905, Standpipe Systems, by adding new Section 905.3.8, Other Standpipe Systems Required Locations, as follows:~~

~~Section 905.3.8 Other Standpipe Systems Required Locations. Notwithstanding the previously specified required locations, approved standpipe systems shall also be required in:~~

- ~~1. Commercial buildings greater than two stories in height.~~

~~CHAPTER 33, IFC, Explosives and Fireworks~~

~~Amend Section 3301.2.4 Financial responsibility, by deleting and substituting "A \$1,000,000 bond in lieu of a \$100,000 bond."~~

~~Amend Section 3308, Fireworks Display, by adding new Section 3308.2.3, Permit Cancellations, as follows:~~

~~Section 3308.2.3 Permit Cancellations. Outdoor fireworks displays will not be permitted and any previously issued permits will be automatically rescinded when the Fire Danger Rating for the Flagstaff Area of the Coconino National Forest reaches Very High or greater.~~