

University of Arizona

AMENDMENTS TO THE
INTERNATIONAL FIRE CODE
2018 EDITION

The following provisions of the International Fire Code, 2018 Edition, as published by the International Code Council, Inc. are hereby revised as follows:

CHAPTER 1
SCOPE AND ADMINISTRATION

[A] Section 101.1 Title. Revise as follows:

Insert: [NAME OF JURISDICTION] as, "**University of Arizona**"

[A] Section 104.10 Fire investigations. Revise as follows:

Change the paragraph, "The fire code official, the fire department or other responsible authority shall have the authority to investigate the cause, origin and circumstances of any fire, explosion or other hazardous condition. Information that could be related to trade secrets or processes shall not be made part of the public record except as directed by a court of law." To read, "**The fire code official shall have the authority to investigate the cause, origin and circumstances of any fire, explosion or other hazardous condition. Information that could be related to trade secrets or processes shall not be made part of the public record except as directed by a court of law.**"

[A] Section 104.10.1 Assistance from other agencies. Revise as follows:

Change, "Police and other enforcement agencies" to read, "**The University Police Department, the responding fire department and other enforcement agencies**".

[A] SECTION 109 BOARD OF APPEALS. Revise as follows:

Delete this section, and all subsequent subsections, (in its entirety) and replace with:

"[A] SECTION 109 BOARD OF APPEALS.

The Arizona State Fire Marshal shall hear and decide appeals of orders, decisions or determinations made by the fire code official relative to the application and interpretation of this code."

[A] Section 110.4 Violation Penalties. Revise as follows:

Insert: [SPECIFY OFFENSE] as, "**civil offense**". Insert: [AMOUNT] as, "**not more than one thousand**". Delete the sentence "**or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment**". At the end of the paragraph add, "**Per ARS§ 37-1391**".

[A] Section 112.4 Failure to comply. Is hereby **DELETED** (in its entirety) and **REPLACED** with:

"[A] Section 112.4 Failure to comply. Any person, who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be guilty of violating ARS§ **37-1391**."

CHAPTER 2
DEFINITIONS

Section 202 General Definitions.

FIRE CODE OFFICIAL. Revise as follows:

Delete this definition (in its entirety) and replace it with:

“The University of Arizona Fire Marshal, or a duly authorized representative.”

“QUALIFIED PERSON. One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated to the AHJ his/her ability to solve or resolve problems relating to the subject matter, the work, or the project.”

CHAPTER 3 GENERAL REQUIREMENTS

Section 307.3 Extinguishment authority. Revise as follows:

After, “fire code official,” add “or responding fire department fire chief.”

Section 311.5 Placards. Revise as follows:

Change, “Any vacant or abandoned buildings or structure determined to be unsafe pursuant to Section 110 of this code shall be marked as required by Sections 311.5.1 through 311.5.5.”, to read: “When determined by the fire code official, any vacant or abandoned buildings or structure determined to be unsafe pursuant to Section 110 of this code shall be marked as required by Sections 311.5.1 through 311.5.5.”

Section 313.1 General. Revise as follows:

Add to **Exceptions:**

4. “Use of LP-gas-powered equipment in accordance with NFPA 58.”

Section 313.2 Group R occupancies. Revise as follows:

Change “Vehicles powered by flammable liquids, Class II combustible liquids, or compressed flammable gases shall not be stored within the living space of Group R buildings.” To read, “Vehicles powered by flammable liquids, Class II combustible liquids, or compressed flammable gases shall not be stored or repaired within the living space of Group R buildings.”

CHAPTER 4 EMERGENCY PLANNING AND PREPAREDNESS

Section 403.12.1.2 Duties. Revise as follows:

Add to duties:

“4. Fire watch personnel shall not be required or permitted, while on duty, to perform any duties other than those specified by the fire code official.”

CHAPTER 5 FIRE SERVICE FEATURES

Section 503.2.1 Dimensions. Revise as follows:

Change, “an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).” To read, an unobstructed vertical clearance of not less than 15 feet (4572 mm).

Section 503.2.3 Surface. Revise as follows:

Change, “Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.” To read, “Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus, per Section D102.1, and shall be surfaced so as to provide all-weather driving capabilities”.

Section 505.1 Address numbers. Revise as follows:

Delete section (in its entirety) and replace with:

“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. Address numbers shall be 6” on all R-3 and R-4 occupancies, 12” on all other structures less than 50’ from the near edge of the street or road, 15” on structures more than 50’ from the near edge of the street or road. Address numbers shall be placed on the building or on a pedestal sign approved by the fire code official, visible from both directions of travel along the fire apparatus access road. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response.”

Section 507.3 Fire flow. Revise as follows:

Change, “Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method.” To read, “**Fire flow requirements for buildings or portions of buildings and facilities shall be in accordance with Appendix B**”.

Section 507.5.1.1 Hydrant for standpipe systems. Revise as follows:

Delete this section (in its entirety) and replace with the following:

“**Section 507.5.1.1 Hydrant for standpipe systems.** Buildings equipped with a standpipe system installed in accordance with Section 905 or where the automatic fire sprinkler system is equipped with a fire department connection, shall have a fire hydrant within 100 feet (30 m) of the fire department connections.

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

Add the following section:

“**Section 507.5.7 Reflective pavement markers.** Fire hydrants shall be identified by the installation of approved blue reflective pavement markers.”

CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS

Section 901.4 Installation. Revise as follows:

Change, “Required systems shall be extended, altered, or augmented as necessary to maintain and continue protection whenever the building is altered, remodeled or added to. Alterations to fire protection systems shall be done in accordance with applicable standards.” To read, “**Fire protection systems shall be extended, altered,** or augmented as necessary to maintain and continue protection whenever the building is altered, remodeled or added to. Alterations to fire protection systems shall be done in accordance with applicable standards.”

SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

Section 903.2 Where required. Revise as follows:

Change, “*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.” To read, “*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, **and in all new construction and major renovations, alterations and additions, as defined in the University of Arizona Construction and Renovation Permitting Procedure (adopted: July 2011), unless approved by the fire code official. In all new construction, major and minor renovations, alterations and additions, where the fire code official has determined the public safety of an existing or proposed activity, building or structure, or for the safety of the occupants thereof, that are not specifically provided for by this code, shall be determined by the fire code official in accordance with section 102.9 of this code.**”

Section 903.3.1.3 NFPA 13D sprinkler system. Revise as follows:

Add the following at the end of the paragraph:

“Automatic sprinkler systems shall provide coverage for attached garages and under the horizontal projections of any part of the roof enclosed on 3 sides and greater than 4 feet in depth.”

Add the following section:

“**Section 903.4.4.** Provide electronic pressure monitoring of the supply and system sides of the fire sprinkler system using 24VDC ¼”NPT 4-20ma transducers that provide a range of 0-300psi with a burst rating of at least 400psi. They shall be installed in the same location as the system and supply pressure gauges. Each pressure transducer shall be monitored.”

Section 904.12.2 System interconnection. Add the following to the end of the first sentence: “...and to all electrical receptacles located within the perimeter of the protected exhaust hood.”

SECTION 907 – FIRE ALARM AND DETECTION SYSTEMS

907.2 Where required—new buildings and structures. Add the following sentence to the end of the first paragraph: “*Class A fire alarm systems shall be installed in all new buildings, structures, and renovation projects where the scope of demolition and construction covers at least any single floor of a building. Concurrent small renovations on multiple floors of a building where the cumulative scope of work in square feet is greater than the largest single floor of the building shall also install a Class A fire alarm system.*”

907.5.2.2 Emergency voice/alarm communication systems. Revise as follows: before the last sentence of the first paragraph, add, “Emergency voice/alarm systems shall be installed in all new buildings, structures, and renovation projects where the scope of demolition and construction covers at least any single floor of a building. Concurrent small renovations on multiple floors of a building where the cumulative scope of work in square feet is greater than the largest single floor of the building shall also install an emergency voice/alarm system.”

CHAPTER 10 MEANS OF EGRESS

SECTION 1010 DOORS, GATES AND TURNSTILES

[B] Section 1010.1.9.8.1 Delayed egress locking system, #6.3. Revise as follows:

Add the following at the end of the paragraph: “Lettering shall be at least 1 inch (25 mm) in height and shall have a stroke of not less than 1/8 inch (3.2 mm), on a contrasting background.”

[BE] Section 1010.1.9.9 Access-controlled egress doors, #4. Revise as follows:

After the words, “PUSH TO EXIT” in the second sentence add, “Lettering shall be at least 1 inch (25 mm) in height and shall have a stroke of not less than 1/8 inch (3.2 mm), on a contrasting background.”

[BE] Section 1010.1.10.1 Installation. Revise as follows:

Add the following:

“5. Panic or fire exit hardware shall be the only locking device on the door except where otherwise permitted in this code.”

CHAPTER 31 TENTS, TEMPORARY SPECIALEVENT STRUCTURES AND OTHER MEMBRANE STRUCTURES

SECTION 3103 – TEMPORARY TENTS AND MEMBRANE STRUCTURES

Section 3103.8 Access, Location and Parking. Revise as follows:

Change this section by adding, “when required by the fire code official”. To the end of the paragraph.

3103.12.4 Doors. Revise as follows:

Change the first sentence, “Exit doors shall swing in the direction of exit travel.” To read, “Exit doors shall swing in the direction of exit travel and shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.”

CHAPTER 35 WELDING AND OTHER HOT WORK

SECTION 3503 – GENERAL REQUIREMENTS

SECTION 3503.2 Hot work program permit. Revise as follows:

Delete this section (in its entirety) and replace with the following:

“SECTION 3503.2 Hot work program permit. Hot work permits shall be issued by the University of Arizona permit program, unless authorized by the fire code official.”

Section 3504.2.6 Fire extinguisher. Revise as follows: Add the following sentence at the end of the section: “The fire extinguisher(s) shall be readily accessible without climbing stairs or ladders.”

CHAPTER 56 EXPLOSIVES AND FIREWORKS

Section 5604.5.3.3 Use. Revise as follows:

Change the second sentence, “Where two Type 3 magazines are located at the same blasting site, one magazine shall be used solely for the storage of detonators.” To read, “Where two Type 3 magazines are located at the same blasting site, one magazine shall be used solely for the storage of detonators.”

SECTION 5704 STORAGE

Section 5704.2.13.1.3 Out of service for one year. Revise as follows:

Change, “Underground tanks that have been out of service for a period of one year shall be removed from the ground in accordance with Section 5704.2.14 or abandoned in place in accordance with Section 5704.2.13.1.4.” To read, “Underground tanks that have been out of service for a period of one year shall be removed from the ground in accordance with Section 5704.2.14 or when approved by the fire code official, abandoned in place in accordance with Section 5704.2.13.1.4.”

Section 5704.3.3.3 Clear means of egress. Revise as follows:

Change, “Storage of any liquids, including stock for sale, shall not be stored near or be allowed to obstruct physically the route of egress.” To read, “Storage of any liquids, including stock for sale, shall not be stored within 10 feet of an exit door or be allowed to obstruct physically the route of egress.”

SECTION 5706 SPECIAL OPERATIONS

Section 5706.5.4.5 Commercial, industrial, government or manufacturing. Revise as follows:

Add the following subsections:

- “26. Prior to removal of the fuel cap, the bond wire cable shall be securely clamped to the vehicle being fueled.
- 27. At no time shall the fueling hose extend across a trafficable lane without florescent traffic cones conspicuously placed so that all vehicle traffic is blocked. Vehicles shall not drive over any delivery hose.
- 28. Fuel expansion space shall be provided in each motor vehicle tank to prevent overflow.
- 29. The fuel cap of the vehicle being fueled shall be replaced prior to disconnecting the bonding cable.”

Section 5706.6 Tank vehicles and vehicle operation. Revise as follows:

Delete this section (in its entirety) and replace with the following:

“**Section 5706.6 Tank vehicles and vehicle operation.** Tank vehicles shall be utilized and operated in accordance with the following:

- 1. The tank vehicle shall be road worthy, licensed by the Department of Motor Vehicles, and meet Arizona Department of Transportation requirements.
- 2. To ensure proper operation, a daily inspection of the tank vehicle shall be conducted by appropriately qualified and trained personnel. Any equipment or devices found to be defective shall be taken out-of-service immediately and repaired or replaced.
- 3. The tank vehicle shall be equipped with a readily accessible, operational emergency shut-off valve.
- 4. Sections 5706.6.1 through 5706.6.4.”

The following Appendix Requirements are adopted with the following exceptions:

**APPENDIX B
FIRE-FLOW REQUIREMENTS FOR BUILDINGS**

Add the following section:

“**Section B104.1.1 Residential.** The fire-flow calculation area for single family residences shall be the total floor area of all floor levels within exterior walls, and under the horizontal projections of any part of the roof enclosed on 3 sides and greater than 4 feet in depth.”

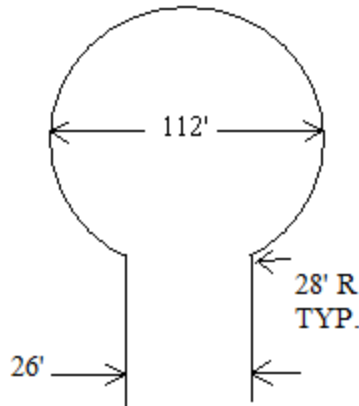
Section B105.2 Building other than one- and two-family dwellings. Revise as follows: Change, “**Exception:** A reduction in required fire-flow of up to 75 percent, as approved,” to read: “**Exception:** A reduction in required fire-flow of 75 percent, as approved,”

**APPENDIX C
FIRE HYDRANT LOCATIONS AND DISTRIBUTIONS**

**APPENDIX D
FIRE APPARATUS ACCESS ROADS**

Figure D103.1 DEAD-END FIRE APPARATUS ACCESS ROAD TURNAROUND Revise as follows:

Add the following:



“112-FOOT DIAMETER CUL-DE-SAC”

Section D103.6 Signs. Revise as follows:

Delete this section (in its entirety) and replace with the following:

“**Section D103.6 Signs.** Every fire apparatus access roadway required under this section shall be posted with signs installed at points not more than one-hundred fifty (150) feet apart along the length of the required fire apparatus access roadway or as approved by the Fire Marshal. The bottom of every such sign shall not be less than seven (7) feet or more than ten (10) feet from the ground surface level. Signs shall be posted to face the direction of travel. Materials and locations of each sign shall be indicated in the plans submitted to the Fire Marshal for approval prior to installation.

The required sign shall be the international NO PARKING sign with a standard sign size (width and height) of 12 x 18 inches (300 x 450 mm), on a white reflective background. The international NO PARKING symbol shall be a black P, six inches high. Underneath the NO PARKING symbol, in one-and-five-eighths inch high and one-quarter inch stroke, in red lettering it shall read:

FIRE ACCESS
TOW-AWAY



Only fire apparatus access roadways required under the authority of this section or as approved by the fire marshal may be posted or identified with the approved sign shown above. Unauthorized signs shall be removed at the owner’s expense.”

Add the following section:

Section D103.6.3 Dead-end fire apparatus access road turnarounds.

“NO PARKING signs are required at the end of fire apparatus access road turnarounds.

Exception: If 112-Foot Diameter Cul-de-sac is utilized, NO PARKING signs are not required to be posted.”

**APPENDIX I
FIRE PROTECTION SYSTEMS – NONCOMPLIANT CONDITIONS**

**APPENDIX L
FIRE PROTECTION SYSTEMS – NONCOMPLIANT CONDITIONS**