CHAPTER 1 SCOPE AND ADMINISTRATION

Section 101.1 Title: These regulations shall be known as the Fire Code of Golder Ranch Fire District (GRFD), hereinafter referred to as "this code".

Section 101.2.1 Appendices: Provisions in the appendices shall not apply unless specifically adopted.

Is hereby **AMENDED** by **ADDING** a new Section: **Section 101.2.1.1 Adopted Appendices**: GRFD hereby adopts the following appendices:

Appendix B

Appendix C

Appendix D

Appendix E

Appendix F

Appendix G

Appendix H

Section 101.2.1.1 is AMENDED by ADDING: Appendix O – Permit Fee Schedule

Section 105.1.2 Types of Permits: Is hereby **AMENDED** with the following **CHANGES:** There shall be two three types of permits as follows: (add)

- Special Event Permit: A Special Event permit is required for any occasion or event including, but not limited to: exhibitions; carnivals; fairs; festivals; or trade shows, which involve any of the following but not limited to: the closing of a street; blocking or restriction of public property; sale/consumption of alcohol; cooking/heating of food; setting up of temporary structures (I.E. stage, tent); any event that is not a normal function of any location or zoning designation; or any event requiring a Special Event permit from another jurisdiction within GRFD.
- Section 105.4.2.1 Fire Protection System Shop Drawings: Is AMENDED by ADDING: Automatic sprinkler system water supply data for hydraulic calculations shall be based on a curve that is 90 percent of the available water supply curve as determined by flow test information. The fire code official shall witness all flow tests performed. Documentation of the results of a flow test shall be submitted to the fire code official.
- Only qualified professionals or Arizona registrants shall design automatic sprinkler and fire alarm systems. A system's design shall be included with the building construction documents submitted for permit review and approval for construction. System designs shall include:

- 1. Consideration for the range of hazards of the project.
- 2. A hazard analysis identifying the hazard classification of the intended occupancy, including any special hazards.
- 3. A determination of the applicable codes, standards, and appropriate engineering practices.
- 4. Ascertaining the availability and adequacy of the water supply for the project.
- 5. Determining the appropriate design density and area of operation for each hazard area.

Section 105.4.5 Amended Construction Documents: Is AMENDED by ADDING: Deviations from the approved plans in the installation of a fire protection system shall have prior approval of the fire code official. When approved field changes have been made during installation, "AsBuilt" plans shall be submitted prior to Certificate of Occupancy issuance. Minor changes can be hand drawn on a copy of the original approved plans and a minimum of three copies submitted for re-approval and re-stamping. Major changes shall be re-drafted and new plans submitted for approval. The fire code official shall have the discretion to establish the level of changes for minor or major alterations.

Section 106.2 Schedule of Permit Fees: A fee for each permit shall be paid as required, in accordance with the schedule, listed in Appendix O, as established by the applicable governing authority.

Section 106.3 Work Commencing before permit issuance: Is **AMENDED** by **ADDING**: Any person who commences work, activity, or operation regulated by this code before obtaining the necessary permits shall be subject to 500 percent of the usual permit fee, which shall be in addition to the required permit fees. See the "Golder Ranch Fire District Permit and Fee Schedule."

Section 109 Board of Appeals: Is hereby AMENDED by REPLACING: Section 109.1 Administrative Appeal: Whenever a violation of this code has been found and the applicant wishes to appeal the decision of the staff because of code interpretation, or unreasonable hardship, an appeal may be filed to the fire code official or an authorized representative, within 14 calendar days of the determination of a violation as follows:

- 1. The appeal will be heard by the fire code official or an authorized representative within 10 working days of the receipt of the appeal.
- The fire code official, or an authorized representative, may use a Hearing
 Committee consisting of such staff as is deemed appropriate to provide advice on a particular
 appeal.
- 3. Adequate information shall be provided by the applicant on the Petition of Appeal to fully describe the condition(s) in question.

- 4. The applicant may, but is not required to, meet with the fire code official, or a designated representative, to discuss the appeal.
- 5. If the appeal is denied, the applicant shall comply with the requirement(s) of the fire code or file an appeal to the Board of Appeals as provided in Section 108.1 of this code within 30 days of the date the appeal is denied.

Section 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, punishable by a fine of not more than \$1000 dollars or by imprisonment not exceeding 365 days, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed as a separate offense.

Section 112.4 Failure to Comply: Is **AMENDED** by **ADDING**: 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 a civil infraction.

CHAPTER 2 DEFINITIONS

Section 202 Definitions: Group E, day care facilities. Is hereby AMENDED by ADDING the following:

A single story Child Care Group Home with up to 10 children defined by Arizona Department of Health Services shall be classified as a Residential Group R-3.

Section 202 Definitions: Is hereby AMENDED by ADDING a definition: Fire Risk Analysis: An analytical process or review conducted by the fire code official in accordance with nationally recognized standards; such as NFPA 101; 101A; 550; 551; or 1142; ICC IUWIC; and ISO evaluation criteria to determine minimum levels of fire protection requirements based upon the risk associated with the subject matter, where not specifically detailed in this code or when an application requesting a reduction or modification to this code is received.

The fire code official shall take into consideration fire scenarios and their probability of occurrence and or potential consequences. Items to consider in the fire risk analysis process or review may include; distances to fire stations; available fire apparatus and first responders; fire protection systems; Wildland interface; building and occupancy types; hazardous materials; water supplies; and other pertinent information detailing the subject matter being considered for modification or reduction of fire code prescriptions.

Section 202 Definitions: Institutional Group I-1. Is hereby AMENDED by REPLACING: "...more than 16 persons," with "...more than 10 persons," in the first sentence.

And is hereby **AMENDED** by **REPLACING** sub-section title:

"Six to sixteen persons receiving care" with "Six to ten persons receiving care":

And this sub-section is hereby **AMENDED** by **REPLACING**:

"...not more than 16 persons", with "... not more than 10 persons"

Section 202 Definitions: Residential Group R-4. Is hereby AMENDED by REPLACING: ...more than 16 persons", with "...more than 10 persons".

ADD definition: Occupancy Hazard Classifications

Critical Hazard Occupancies: Those occupancies that have:

 Vital assets, systems, networks, or structures whose damage or destruction would have a debilitating effect on the community.

(Examples -- power plants; water treatment facilities; public safety buildings; special structures unique to the community...)

High Hazard Occupancies: Those occupancies that have:

- An occupant load of more than 300 persons such as schools, places of assembly
- High life hazard occupancies such as hospitals, nursing homes of more than
 16 persons and adult care facilities
- That use, store or handle hazardous materials in quantities beyond what is customary for maintenance of the occupancy
- Flammable or combustible liquids in reportable quantities
- Compressed gases in reportable quantities
- Multiple fire suppression systems requiring more than an annual maintenance inspection schedule
- A large impact on the community if lost or interrupted by a fire or explosion
- Employ hazardous processes, storage or manufacturing
- Explosive materials in reportable quantities
- High rise occupancies (taller than 75')
- A fire flow requirement of 4000GPM or more

(Examples – Oro Valley Hospital; Securaplane; Honeywell; Home Depot; Walmart...)

Medium Hazard Occupancies: Those occupancies that have:

- An occupant load of 50 to 300 persons
- Medium life hazard occupancies which include residential care facilities of 16 or less persons
- Store, use or handle hazardous materials in less than reportable quantities
- Or use, store or handle flammable or combustible liquids in less than reportable quantities
- Special hazard operations or processes (requiring a permit)
- A fire flow requirement of 3000GPM to 3999GPM
- Multiple manual or automatic fire protection systems

(Examples – Chili's; McDonalds; non-chain restaurants...)

Low Hazard Occupancies: Those occupancies that have:

- A fire flow requirement of less than 3000GPM
- An occupant load of 49 persons or less (other than residential care facilities)
- No hazardous materials
- No special hazard operations or processes
- One or no manual or automatic fire protection system

(Examples – small business or mercantile type occupancies...)

CHAPTER 3 GENERAL REQUIREMENTS

307.3 Extinguishment authority: Is hereby **AMENDED by REPLACING:** When open burning creates or adds to a hazardous situation or a required permit for open burning has not been obtained, the fire code official, fire chief or designated representative is authorized to order the extinguishment of the open burning operation.

Section 308.1.6 Open Flame Devices: Is hereby **AMENDED** by **ADDING**: Torches are prohibited for weed and vegetation abatement in conjunction with residential open burn permits within GRFD.

Section 313.1 General. Is hereby AMENDED by ADDING the following exception: 4. Use of LP-gas-powered equipment in accordance with NFPA 58.

Section 313.2 Group R Occupancies: Is hereby **AMENDED** by **ADDING** the words: Vehicles powered by flammable liquids, Class II combustible liquids or compressed flammable gases shall not be stored, operated or repaired within the living space of Group R buildings.

CHAPTER 4 EMERGENCY PLANNING AND PREPAREDNESS

Section 403.12.1 Fire Watch Personnel: Is hereby **AMENDED** by **REPLACING** with the following subsection:

Whenever, in the opinion of the fire code official, the safety of the public is essential in a place where people congregate, due to the number of persons present or the nature of the performance, exhibition, display, contest or activity, the owner, agent or lessee shall provide one or more fire watch personnel. Fire watch personnel shall comply with Sections 403.12.1.1 and 403.12.1.2 and be subject to the fire code official's orders at all times when so employed, and shall remain on duty during the times such place is open to the public, or at times specified by the fire code official. The duties of the personnel assigned to work under the provisions of this section shall be as prescribed by the fire code official. Standby personnel shall not be required or permitted, while on duty, to perform any duties other than those specified by the fire code official or this section.

When the fire code official has determined that standby personnel will be required to take prompt measures to extinguish any fires that may occur, such standby personnel shall be off duty GRFD firefighters. Compensation of such firefighters shall be as provided by GRFD's Permit Fee Schedule and, upon receipt of a bill therefore, said owner, agent or lessee shall remit to GRFD such amounts as are due in accordance with the Permit Fee Schedule.

CHAPTER 5 FIRE SERVICE FEATURES

Section 503.1 Where required: Is hereby **AMENDED** by **ADDING**, Fire apparatus access roads shall be provided and maintained in accordance with Section 503.1.1 through 503.1.3 and Appendix D.

Section 503.2 Specifications: Is hereby **AMENDED** by **ADDING**, Fire apparatus access roads shall be installed and arranged in accordance with Section 503.2.1 through 503.2.8 and Appendix D.

Section 503.2.1 Dimensions: Is hereby **AMENDED** by **ADDING** an exception:

Exception: The fire code official shall have the authority to approve an increase or decrease in fire apparatus road widths or vertical clearances based upon a Fire Risk Analysis.

Section 503.2.3 Surface: Is hereby **AMENDED** by **ADDING** the words: Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus, at least 82,000 pounds (37.195 metric tons), and shall be surfaced so as to provide all-weather driving capabilities. Surfaces shall be comprised of at least 4" of ABC compacted to 95% or asphalt for grades up to 6%. For grades from 6% to 12%, the surface shall be comprised of asphalt type materials. For grades from 12% to 15% surfaces shall be comprised of concrete with a traction surfacing. Grades shall not exceed 15% without approval from the fire code official.

Section 503.2.7 Grade: Is hereby **AMENDED** by **ADDING** the words: Grades shall not exceed 15% unless approved by the fire code official.

Section 503.3 Marking: Is hereby AMENDED by ADDING the words:

Every fire apparatus access roadway required under the authority of this section shall be posted with signs installed at points not more than one-hundred (100) feet apart along the length of the required fire apparatus access roadway. 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. Construction, installation, and maintenance of the signs shall be done at no expense to the District. Materials and locations of each sign shall be indicated in the plans submitted to the fire district. Fire access signs shall conform to the Manual on Uniform Traffic Control Devices. 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 chief may be posted or identified with the approved sign shown above. Alternative signs may be allowed with sufficient documentation and prior approval. Unauthorized signs shall be removed.

Section 503.6 Security gates:

Add a new subsection: Section 503.6.1 Electric operating gates: Gates that use electric or other means of power to automatically open or unlock shall have a manual override system. Manual override controls shall be located on the entrance side of gate, or when power has failed, the gates(s) shall open and stay open until power restores for normal operations.

Add a new section: Section 503.7 Traffic Control Signaling Devices: Traffic control signaling devices serving fire apparatus roadways shall provide preemptive traffic control devices which are compatible with the fire district's existing STROBECOM II system.

Add a new Section: Section 503.8 Maintenance: The person(s) in possession of the premises on and into which a fire apparatus access roadway is required shall be solely responsible for the maintenance of such roadways and all required signs. No owner, manager or other person(s) in charge of premises served by a required fire-apparatus access roadway shall abandon or close the fire apparatus roadway or any part thereof without permission of the fire code official. The person(s) in possession of the premises shall be responsible for ensuring that fire apparatus roadways are clear of obstructions at all times.

SECTION 505 - PREMISES IDENTIFICATION

Section 505.1 Address identification: Is hereby AMENDED by ADDING the following,

Where required by the fire code official, additional address numbers shall be provided in approved locations to facilitate emergency response. Address identification shall be visible from all travel directions along fire-apparatus access roadways.

Commercial Buildings

Buildings < 50 feet from the curb require 12" numbers displayed on the building Buildings > 50 feet from the curb require 15" numbers displayed on the building Tenant space numbers shall be in accordance with the local building department addressing requirements

Address ranges require 12" numbers on the building

Apartments

Entrance numbers shall be 12"

Building numbers shall be 15"

Number ranges are required on buildings or signage in accordance with the local building department, signage codes

Apartment numbers ranges displayed below building numbers shall be 8"

Apartment numbers ranges displayed on signage near the building shall be in accordance with the local building department, signage codes

Apartment numbers shall be in accordance with the local building department addressing requirements on outside entrances and at least 1" for interior (hallway) entrances

Residential

- < 50 feet from curb requires 4" tall numbers displayed on the building
- > 50 feet from the curb requires 4" tall numbers displayed a minimum of 36" aboveground at the primary access point

RV and Mobile Home Parks

Entrance numbers shall be a minimum of 12" tall Building numbers shall be a minimum of 6" tall Space numbers shall be a minimum of 3" tall

Miscellaneous Information

The complete address shall be displayed on all corner buildings
Addresses shall be displayed and visible from both directions of approaching vehicles
Numbers and letters shall be made of durable material. (Paint is not acceptable)
Numbers and letters shall be of colors contrasting with the background
Numbers and letters shall have a min. proportion ratio of 6:1 (height to width)
Spelled out numbers are prohibited

Address identification shall be maintained in accordance with this code and the local or county building and zoning codes or regulations where properties are respectively located throughout the district

SECTION 506 – KEY BOXES

Section 506.1 Where Required: Is hereby **AMENDED** by **ADDING** the following: A key box shall be located adjacent to the riser room access door on buildings equipped with fire sprinkler systems. The key box shall be mounted on the doorknob side of the riser room access door. Key boxes may be surface mounted on or recessed into the exterior wall.

SECTION 507 - FIRE PROTECTION WATER SUPPLIES

Section 507.1 Required Water Supply: Is hereby **AMENDED** by **ADDING** the following paragraph:

An approved water supply capable of supplying the projected fire flow per Appendix B for fire protection shall be provided for all subdivided property, with or without the creation of public or private streets, for the expressed purpose of providing subdivided parcels for sale or otherwise, permitting separate and/or individual development to occur. Fire flow shall directly serve all subdivided properties. Fire flow shall be delivered through approved fire hydrants installed in accordance with Appendix C.

Section 507.3 Fire flow: Is hereby **AMENDED** by **ADDING/DELETING** the words: Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method Appendix B and/or a Fire Risk Analysis.

Section 507.5 Fire hydrant systems: Is hereby **AMENDED** by **ADDING** the words, Fire hydrant systems shall comply with Section 507.5.1 through 507.5.6 and with Appendix C.

ADD a new subsection:

Section 507.5.7 Fire Hydrant Markings: Reflective raised two-way roadway fire hydrant markers shall be installed for each fire hydrant. Markers shall be located within the roadway in an approved manner. Markers shall be blue four (4) inch (10.160cm) by four (4) inch (10.160cm) STIMSONITE brand or equivalent as approved by the fire code official.

ADD a new subsection:

Section 507.5.8 Fire Hydrants - Out of Service: All fire hydrants placed out of service shall be properly marked or tagged as "Out of Service" with approved markings or tags. Markings and tags shall remain on the fire hydrant until authorized by the water purveyor. The water purveyor shall notify the fire code official of repaired hydrants and then schedule an inspection and flow testing prior to returning it to service.

ADD a new subsection:

Section 509.1.2 Electrical Service Shutoff Access: Where electrical service shutoff controls are located within a building, a door providing direct access from the exterior into the room containing the shutoff controls shall be provided where required by the fire code official.

Section 509.2 Equipment Access: Is hereby AMENDED by adding the words, Approved access shall be provided and maintained for all fire protection equipment to permit immediate safe operation and maintenance of such equipment. Storage, trash and other materials or objects shall not be placed or kept in such a manner that would prevent such equipment from being readily accessible. Fire sprinkler risers, fire pumps and controllers shall be located within buildings inside dedicated rooms and accessible through a door having direct access to the building's exterior in accordance with Section 901.4.6.1.

CHAPTER 6 BUILDING SERVICES AND SYSTEMS

Section 607.1 General: Is hereby **AMENDED** by **ADDING** the words, Commercial kitchen exhaust systems shall comply with the requirements of the International Mechanical Code and the National Fire Protection Association's Standard #96-17 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.

ADD a new subsection:

Section 607.1.2 Installation Requirements: Installation of systems shall be performed only by persons properly trained and qualified to install the specific system being provided. The installer shall provide certification to the authority having jurisdiction that the installation is in agreement with the terms of the listing and the manufacturer's instructions and/or approved design. See section 901.4.

Section 607.3.3.1 Inspection: Is **AMENDED** by **ADDING**: Inspections shall be conducted in accordance with NFPA #96, Chapter 11.

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

No changes

CHAPTER 8 INTERIOR FINISH, DECORATIVE MATERIALS AND FINISHINGS

No changes

CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS

Section 901.4 Installation: Is **AMENDED** by **ADDING**: The layout, calculation, and installation of fire protection systems shall be performed by persons knowledgeable and trained in such systems. Contractors are required to possess a current Arizona License from the Register of Contractors to install fire protection systems. The installer shall follow all manufacturer guidelines for installation, inspection and testing. Contractors shall maintain certification when required by the manufacturer. Contractors shall obtain an L-16 or K-16 license or other appropriate license through the Arizona State Register of Contractors to install fire sprinkler systems.

Section 901.4.6.1 Access: Is **AMENDED** by **ADDING** the words, Automatic sprinkler system risers, fire pumps and controllers shall be located inside buildings in dedicated rooms provided with ready access. Automatic fire sprinkler risers, fire pumps and controller room doors shall be arranged to allow direct access to the exterior of the building. Where located in a fire pump room or automatic sprinkler system riser room, the door shall be permitted to be locked provided that the key is available at all times in an approved after-hours key box per Section 506.2.

Section 903.1 General: Is **AMENDED** by **ADDING:** Where the provisions of the fire code require that a building or portion thereof be equipped throughout with an automatic sprinkler system, sprinkler systems shall be designed and installed throughout in accordance with appropriate standards of the National Fire Protection Association (NFPA). All commercial occupancies, wherever located throughout the District, shall be equipped with automatic fire

sprinkler systems installed and designed in accordance with NFPA 13, "Standard for the Installation of Sprinkler Systems" the latest adopted edition.

When approved in buildings of Group R1, R2 and R4 occupancies, up to and including four stories in height, automatic sprinkler systems may be installed throughout in accordance with NFPA 13R, "Standard for the Installation of Sprinkler Systems In Low-Rise Residential Occupancies" the latest adopted edition.

When approved in buildings of Group R3 occupancies, automatic sprinkler systems installed in one- and two-family dwellings may be installed throughout in accordance with NFPA 13D, "Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes" the latest adopted edition.

Automatic sprinklers shall be installed with due regard to obstructions that will delay activation or obstruct the water distribution pattern. Automatic sprinklers shall be installed in or under covered kiosks, displays, booths, concession stands, or equipment that exceeds 4 feet in width.

Sprinklers shall be installed under exterior roofs and canopies exceeding 4 feet in width. Sprinklers may be omitted, when approved by the fire code official, where the construction is entirely noncombustible. Sprinklers shall be installed under all roofs or canopies over areas where combustibles are stored and handled.

Add a new subsection:

903.2 Where required. FOR EVERY FACILITY, BUILDING OR PORTION OF A BUILDING HEREAFTER CONSTRUCTED WITHIN OR MOVED INTO THE JURISDICTION.

Section 903.2.1 Existing Buildings - Change of Occupancy Group: Approved automatic sprinkler systems, installed in accordance with Section 903.2, shall be provided throughout the fire area of existing buildings when the occupancy group changes to a different occupancy group.

Section 903.2.1.1 Group A-1: Is hereby **AMENDED** to read: An automatic sprinkler system shall be provided throughout all stories of a building 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: **DELETE** the remainder of the section.

Section 903.2.1.2 Group A-2: Is hereby **AMENDED** to read: An automatic fire sprinkler system shall be provided throughout all stories of a building 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: **DELETE** the remainder of the section.

Section 903.2.1.3 Group A-3: Is hereby **AMENDED** to read: An automatic fire sprinkler system shall be provided throughout all stories of a building 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: **DELETE** the remainder of the section.

Section 903.2.1.4 Group A-4: Is hereby **AMENDED** to read: An automatic sprinkler system shall be provided throughout all stories of a building 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: **DELETE** the remainder of the section.

Section 903.2.1.5 Group A-5: Is hereby **AMENDED** to read: An automatic sprinkler system shall be provided for all enclosed Group A-5 amusement park structures in accordance with Section 914.7, stadiums and accessory use areas in excess of 1000 square feet (92 m²).

Section 903.2.2 Ambulatory care facilities: Is hereby **AMENDED** to read: An automatic sprinkler system shall be installed throughout all floors of a building containing an ambulatory care facility. where either of the following conditions exist at any time: **DELETE** the remainder of the section up to the exception. The exception remains.

ADD a new subsection:

Section 903.2.3a Group B: An automatic sprinkler system shall be provided for all floors of a building containing Group B occupancies.

Section 903.2.3 Group E: Is hereby **AMENDED** to read: An automatic sprinkler system shall be provided for all floors of a building containing Group E occupancies. as follows: **DELETE** the remainder of the section.

Section 903.2.4 Group F-1: Is hereby **AMENDED** to read: An automatic sprinkler system shall be provided throughout all stories of a building containing a Group F-1 occupancyies. where one of the following conditions exists: **DELETE** the remainder of the section.

Section 903.2.4.1 Woodworking operations: Is hereby **AMENDED** to read: An automatic sprinkler system shall be provided throughout all Group F-1 occupancy fire areas that contain woodworking operations in excess of 2,500 square feet (232 m²) in area that generate finely divided combustible waste or use finely divided combustible materials.

Section 903.2.5.3 Pyroxylin plastics: Is hereby **AMENDED** to read: An automatic sprinkler system shall be provided in buildings, or portion thereof, where cellulose nitrate film or Pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds (45 kg).

Section 903.2.6 Group I: Is hereby **AMENDED** to read:

Exception 2: An automatic sprinkler system is not required where Group I-4 day care facilities are contained in a building at the level of exit discharge and where every room where care is provided has not fewer than one exterior door.

Exception 3: In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system designed in accordance with Section 903.3.1.4 3 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of exit discharge and all floors below the level of exit discharge other than areas classified as an open parking garage.

Section 903.2.7 Group M: Is hereby **AMENDED** to read: An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancyies. where one of the following conditions exists: **DELETE** the remainder of the section.

Section 903.2.8 Group R: An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area including one- and two-family dwellings and townhouses used as model homes with sales or construction offices and one- and two-family dwellings and townhouses.

Is Amended by ADDING exception:

Exception: Group R-3 occupancies are not required to install automatic sprinkler systems when all of the following exist:

- 1. Group R-3 occupancies providing the required fire flow in accordance with Section B105 and Tables B105.1 (1) and B105.1 (2).
- 2. Group R-3 occupancies within 600 feet (182.880m) of fire hydrants capable of supplying the required fire flow.
- 3. Group R-3 occupancies in compliance with Section D106 and D107.
- 4. Detached garages accessory to a Group R-3 occupancy.

Section 903.2.9 Group S-1: An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancyies. where one of the following conditions exists: **DELETE** the remainder of the section.

Section 903.2.9.1 Repair garages: Is hereby **AMENDED** by **DELETING**, 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: and **DELETING** the remainder of the section.

Section 903.2.9.2 Bulk storage of tires: Is hereby AMENDED by DELETING, Buildings and structures where the area for the storage of tires exceeds 20,000 cubic feet (566m³) shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

Section 903.2.10 Group S-2 Enclosed parking garages: Is **AMENDED** by **DELETING**, 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 where either of the following conditions exist:

- 1. Where the area of the enclosed parking garage exceeds 12,000 square feet (1115m²)
- 2. Where the enclosed parking garage is located beneath other groups. and by **ADDING**, and or the enclosed parking garage is located beneath other groups.

Section 903.2.10.1 Commercial parking garages: Is AMENDED by DELETING, An automatic sprinkler system shall be provided throughout buildings uses for the storage of commercial motor vehicles where the area exceeds 5000 square feet (464 m²).

Section 903.2.10 Group S-2 enclosed parking Garages: Is AMENDED by ADDING a new Subsection 903.2.10.2 Group S-2 Storage Facilities: An automatic sprinkler system installed in accordance with Section 903 shall be provided throughout all buildings classified as Group S-2 Low Hazard Storage Facilities when any of the following conditions exist:

- (a) The total floor area of the building is in excess of 1500 square feet (139.400m²).
- (b) The products being stored are not accessible for fire hose-stream application from the main entrance due to racks or other arrangements of storage.
- (c) The building is of combustible construction.

Section 903.2.11 Specific buildings areas and hazards: Is AMENDED by DELETING the entire section.

Section 903.2.11.1 Stories without openings: Is **AMENDED** by **DELETING** the entire section.

Section 903.2.11.1.1 Openings dimensions and access: Is AMENDED by DELETING the entire section.

Section 903.2.11.1.2 Openings on one side only: Is AMENDED by DELETING the entire section.

Section 903.2.11.1.3 Basements: Is AMENDED by DELETING the entire section.

Section 903.2.11.3 Buildings 55 feet or more in height: Is AMENDED by DELETING the entire section.

Section 903.3.1.1.2 Bathrooms: Is **AMENDED** by **DELETING** the entire section and REPLACING with: Sprinklers shall be provided throughout all square footage areas of bathrooms; including all enclosed toilet rooms in Group R occupancies.

ADD subsection 903.3.1.1.3 Porches and Garages: In Group R occupancies, sprinklers shall not be required in any porches, patios, and similar structures where open on two or more sides or where the covering does not exceed four feet in width. Sprinklers are required in all garages of Group R occupancies.

Sprinklers shall not be required in attic, crawl spaces and other concealed spaces that are not used or intended for living purposes or storage and do not contain fuel-fired equipment. A sprinkler shall protect the direct area of fuel-fired equipment.

Add subsection 903.3.1.3.1 Existing R-3 and R-4 Buildings Fire Area Increase:

An approved NFPA 13D automatic sprinkler system shall be provided throughout an entire fire area of existing Group R-3 and R-4 buildings and townhomes that become greater than 3600 square feet through additions or alterations and the required fire-flow is not available at the rate prescribed by Table B105.1 (2) or delivered through the required number of fire hydrants. When a dwelling, building or townhome under this section is equipped with a compliant fire sprinkler system, Table B105.1 (1) may be applied to determine the required fire flow and number of fire hydrants.

Exception: Existing homes, buildings and townhomes under this section increasing fire areas up to 3600 shall not require the installation of fire sprinkler systems in locations where the required fire flow is not available or impractical to establish. The fire code official determines the minimum levels of fire protection for these circumstances through a fire risk analysis.

Add subsection 903.3.1.3.2 Plan Submittals for NFPA 13D Systems: NFPA 13D automatic sprinkler systems plans shall be submitted to the fire code official for review and approval prior to installation. A minimum of three (3) copies shall be submitted for review purposes, having one copy of plans retained by GRFD for the occupancy file. Plans submitted for projects located within unincorporated areas of Pima and Pinal Counties require two (2) copies of plans for review, having one copy of plans retained by GRFD for the occupancy file.

One set of fire code official approved plans shall be on the job site for each inspection. Automatic sprinkler system plans submitted to the code official for review and approval shall be by qualified persons with experience and manufactures training in residential fire sprinkler systems who maintain a National Institute for the Certification of Engineering Technologies (NICET) Level III certification. A slope legend indicating rise and run for all ceilings shall be added to all plans. All beam depths and special design features shall be noted on the plan. Water meter size shall be contractor verified and the size indicated on the plans. Water meters shall be a full flow type UL listed meter having a minimum size of ¾ inch (19mm) capable of flowing at least 35GPM (132.5LPM).

Section 903.3.5 Water Supplies: Is AMENDED by ADDING: Risers shall be installed within a building. The riser location shall be conspicuously labeled with a permanent sign; letters minimum 1 inch (25mm) with contrasting background. Underground riser supply lines shall be visually inspected, pressure tested, and flushed prior to connection to the riser and overhead piping. Inspections shall be witnessed by the fire code official. All riser assemblies shall contain a minimum of a rubber faced check valve, and a pressure gauge.

The potable water supply shall be protected against backflow. Backflow prevention assemblies are allowed to be installed exterior of the building or to be installed as a portion of the automatic sprinkler system riser inside the building. Backflow prevention assemblies shall be U.L. 1469 Listed. Backflow prevention assemblies shall be installed in an orientation in accordance with its listing. A listed backflow prevention device shall be considered a check valve and an additional check valve shall not be required.

Exterior backflow prevention assembly shutoff valves shall be locked in the open position. Backflow prevention device valves shall be electrically supervised by a tamper switch installed in accordance with NFPA 72.

A means shall be provided to accommodate measured forward flow testing of the backflow prevention device at the sprinkler system demand. Forward flow test piping shall be sized the same as the backflow prevention assembly.

Piping shall terminate to the building exterior and the terminal connection shall be a test header with a 2 ½ inch national standard thread outlet for each 250 gallons of system demand. A metal sign with raised letters at least 1 inch in size shall be mounted on all test headers. Such signs shall read, "TEST CONNECTION" or an approved alternative as applicable.

Section 903.4.1 Monitoring: Is AMENDED by ADDING: Approved audible water-flow alarm notification devices 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. The alarm device shall be provided on the exterior of the building. The water flow alarm is not a building evacuation alarm; however, building owners can choose to react to water flow alarms as evacuation alarms.

Section 903.4.2 Alarms: Is AMENDED by ADDING: In any occupancy having more than one tenant space where more than one fire extinguishing system or detection devices such as duct detection are interconnected into the automatic sprinkler monitoring system approved occupant notification shall be provided in locations approved by the fire code official.

Section 903.5 Testing and Maintenance: Is **AMENDED** by **ADDING**: Fire protection systems shall be maintained in accordance with the original installation standards for that system and NFPA 25 the latest adopted edition. Systems shall be extended, altered, or augmented as necessary to maintain and continue protection whenever the building is altered, remodeled or

incorporates additions. Alterations to fire protection systems shall be in accordance with applicable standards and have prior written approval of the fire code official.

Section 904.1.1 Certification of Service Personnel for Fire Extinguishing Equipment: Is AMENDED by ADDING: ...performed or possess the appropriate contractor's licenses as issued through the State of Arizona Register of Contractors for the type of system and work performed.

Section 905.3.4 Stages: Is **AMENDED** by **DELETING** Class III and ADDING Class I and DELETING the exception.

Section 905.3.4.1 Hose and Cabinet: Is AMENDED by DELETING the entire subsection.

ADD subsection 912.1.2 Fire Department Connection NFPA 13D Systems: NFPA 13D systems which are not supplied from a municipal, public or private water purveyor shall have a single snoot 1½ inch (38mm) fire department connection (FDC) or an automatic temporary backup power supply for the system water pump.

Systems providing protection for homes of more than 5000 square feet (464.5 sq m) of fire area shall be equipped with a single snoot 1½ inch (38mm) FDC.

Section 906.2 General Requirements: Is hereby AMENDED by ADDING an exception –

4. Group B and Group M occupancies classified as low hazard shall not require thirty—day inspections and maintenance shall be allowed to be once every three (3) years for portable drychemical or water fire extinguishers per NFPA #10 Section 1.2.2.

Section 912.2 Location: Is AMENDED by ADDING: NFPA 13 and NFPA 13R systems FDC's shall be installed on the fire department access side of buildings, fully visible and recognizable from the fire department access or as otherwise approved by the fire code official. FDC's shall be located not less than 18 inches (457mm) or more than 48 inches (1219mm) above the level of the adjoining ground, sidewalk, or grade surface. Immediate access to fire department connections shall be maintained at all times and without obstruction by fences, bushes, trees, walls or any other object for a minimum of 36 inches (914mm).

NFPA 13D systems which are not supplied from a municipal or private water purveyor shall have a single snoot 1½ inch (38mm) fire department connection (FDC) or an automatic temporary backup power supply for the system water pump. FDC's shall be installed on the fire department access side of buildings, fully visible and recognizable from the fire department access or as otherwise approved by the fire code official. FDC's shall be located not less than 18 inches (457mm) or more than 48 inches (1219mm) above the level of the adjoining ground, sidewalk, or grade surface. Immediate access to fire department connections shall be maintained

at all times and without obstruction by fences, bushes, trees, walls or any other object for a minimum of 36 inches (914mm).

A metal sign with raised letters at least 1 inch in size shall be mounted on all fire department connections serving fire sprinklers, standpipes or fire pump connections. Such signs shall read, "AUTOMATIC SPRINKLERS" or an approved alternative as applicable.

Fire department connections shall be sized such that a two-way $2\frac{1}{2}$ " National Standard Thread (NST) Siamese connection is provided for all systems with a demand up to 500gpm. A single outlet fire department connection shall be acceptable where piped to a 3" or smaller riser. For systems with a demand of more than 500gpm, an additional $2-\frac{1}{2}$ " NST connection shall be provided for each 250gpm, or portions thereof, of design system flow up to a six-way FDC. If the sprinkler/standpipe system demand exceeds 1,500gpm, then an additional FDC may be required at a location approved by the fire code official. The diameter of the inlet pipe for the FDC shall be no less than the size of the system riser; a minimum of four (4) inches for two- or three-way FDC's; a minimum of six (6) inches for four-, five-, or six-way FDC's.

New FDC's shall have approved KNOX brand locking-caps installed.

On existing buildings, wherever the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" at least 6 inches high and words in letters at least 2 inches high or an arrow to indicate the location. All such signs shall be subject to the approval of the fire code official. Existing FDC's shall have approved locking caps installed when replacing missing caps.

Add a new subsection:

Section 912.2.2.1.1 Fire Department Connection Identification: All fire department connections (FDC) shall be marked as approved by the fire code official. One red street lane reflectors (Stimsonite Model 88ab or similar) shall be installed six inches from the centerline of the fire apparatus access roadway on the side closest to the FDC. Markers shall be parallel to the FDC having the reflective ends of the street markers facing the direction of traffic.

CHAPTER 10 MEANS OF EGRESS

No Changes

CHAPTER 11 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

Add a new subsection:

Add Section 1101.3.1 Modification to Existing Buildings: Existing buildings that undergo a change of use, increase the hazard category of the occupancy type or increase the floor area that are not currently equipped with compliant fire sprinkler systems shall have fire sprinklers installed in accordance with Section 903.1.

Section 1103.5.3 remains with no specified date as there are no I-2 Condition 2 facilities existing without fire sprinklers.

CHAPTER 12 ENERGY SYSTEMS

No Changes

CHAPTER 13 THROUGH 19 RESERVED

CHAPTER 20 AVIATION FACILITIES

No Changes

CHAPTER 21 DRY CLEANING

Section 2108.2 Automatic Sprinkler System: Is AMENDED by DELETING the exceptions.

CHAPTER 22 COMBUSTIBLE DUST-PRODUCING OPERATIONS

No Changes

CHAPTER 23 MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES

No Changes

CHAPTER 24 FLAMMABLE FINISHES

No Changes

CHAPTER 25 FRUIT AND CROP RIPENING

No Changes

CHAPTER 26 FUMIGATION AND INSECTICIDAL FOGGING

No Changes

CHAPTER 27 SEMICONDUCTOR FABRICATION FACILITIES

No Changes

CHAPTER 28 LUMBER YARDS AND AGRO-INDUSTRIAL, SOLID BIOMASS AND WOODWORKING FACILITIES

No Changes

CHAPTER 29
MANUFACTURE OF ORGANIC COATINGS

No Changes

CHAPTER 30 INDUSTRIAL OVENS

No Changes

CHAPTER 31
TENTS, TEMORARY SPECIAL EVENT STRUCTURES
AND OTHER MEMBRANE STRUCTURES

No Changes

CHAPTER 32 HIGH-PILED COMBUSTIBLE STORAGE

Section 3209.2 Automatic Sprinklers: Is **AMENDED** by **ADDING**: Where automatic sprinklers are required by Table 3206.2 or other sections of this code, the building shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.1.1.

CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

No Changes

CHAPTER 34 TIRE REBUILDING AND TIRE STORAGE

No Changes

CHAPTER 35 WELDING AND OTHER HOT WORK

No Changes

CHAPTER 36 MARINAS

No Changes

CHAPTER 37 COMBUSTIBLE FIBERS

No Changes

CHAPTER 38 HIGHER EDUCATION LABORATORIES

Section 3803.1.7 Automatic Fire-Extinguishing Systems: Is **AMENDED** by **DELETING**: New laboratories in new or existing buildings that increase maximum allowable quantities of hazardous materials based on the requirements in this chapter shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

Section 3805 Nonsprinklered Laboratories: Is **AMENDED** by **DELETING** Sections 3805.1 through 3805.4.

CHAPTER 39 PROCESSING AND EXTRACTION FACILITIES

No Changes

CHAPTER 40 THROUGH 49 RESERVED

CHAPTER 50 HAZARDOUS MATERIALS – GENERAL PROVISIONS

No Changes

CHAPTER 51 AEROSOLS

No Changes

CHAPTER 52 RESERVED

CHAPTER 53 CPMPRESSED GASES

Section 5307.3 AMENDED BY DELETING The Word Insulated: (Insulated) Liquid Carbon Dioxide Systems Used In Beverage Dispensing Applications: (Insulated) Liquid carbon dioxide systems with more than 100 pounds (45.4kg) of carbon dioxide used in beverage dispensing applications shall comply with Section 5307.3.1.

CHAPTER 54 CORROSIVE MATERIALS

No Changes

CHAPTER 55 CRYOGENIC FLUIDS

No Changes

CHAPTER 56 EXPLOSIVES AND FIREWORKS

No Changes

CHAPTER 57 FLAMMABLE AND COMBUSTIBLE LIQUIDS

Section 5704.2.9.6.1 is AMENDED by ADDING: Locations where above-ground tanks are prohibited. The storage of Class I and II liquids in above-ground tanks outside of buildings, THAT EXCEED 5,000 GALLONS (18,927 LITERS) IN AGGREGATE VOLUME, is prohibited within the BOUNDARIES OF THE TOWN OF ORO VALLEY limits established by law as the limits of districts in which such storage is prohibited (JURISDICTION TO SPECIFY).

EXCEPTION: FUEL STORAGE FOR PRIVATE AIRCRAFT, WHEN LOCATED NOT LESS THAN 500 FEET FROM A SINGLE FAMILY RESIDENCE, MAY HAVE AN AGGREGATE VOLUME NOT TO EXCEED 10,000 GALLONS (37,854 LITERS).

Section 5706.2.4.4 is AMENDED by ADDING: Locations where above-ground tanks are prohibited. The storage of Class I and II liquids in above-ground tanks EXCEEDING 5,000 GALLONS (18,927 LITERS) IN AGGREGATE VOLUME is prohibited within the BOUNDARIES OF THE TOWN OF ORO VALLEY limits established by law as the limits of districts in which such storage is prohibited [JURISDICTION TO SPECIFY].

EXCEPTION: FUEL STORAGE FOR PRIVATE AIRCRAFT, WHEN LOCATED NOT LESS THAN 500 FEET FROM A SINGLE FAMILY RESIDENCE, MAY HAVE AN AGGREGATE VOLUME NOT TO EXCEED 10,000 GALLONS (37,854 LITERS).

CHAPTER 58 FLAMMABLE GASES AND FLAMMABLE CRYOGENIC FLUIDS

Section 5806.2 is **AMENDED** by **ADDING** and **DELETING:** Limitations. Storage of flammable *cryogenic fluids* in stationary containers outside of buildings is **NOT** prohibited within the limits established by law as the limits of the Golder Ranch Fire d District. s in which such storage is prohibited [JURISDICTION TO SPECIFY].

CHAPTER 59 FLAMMABLE SOLIDS

No Changes

CHAPTER 60 HIGHLY TOXIC AND TOXIC MATERIALS

No Changes

CHAPTER 61 LIQUEFIED PETROLEUM GASES

Section 6104.2 Maximum capacity within established limits. Within the limits established by law restricting BOUNDARIES OF THE TOWN OF ORO VALLEY, the storage of liquefied

petroleum gas **SHALL BE LIMITED TO AN** for the protection of heavily populated or congested areas, the aggregate capacity of any one installation shall not **TO** exceed a water capacity of 2,000 gallons (7570 L) (**JURISDICTION TO SPECIFY**).

(Exception unchanged)

CHAPTER 62 ORGANIC PEROXIDES

No Changes

CHAPTER 63 OXIDOZERS, OXIDIZING GASES AND OXIDOZONG CRYOGENIC FLUIDS

No Changes

CHAPTER 64 PYROPHORIC MATERIALS

No Changes

CHAPTER 65 PYROXYLIN (CELLULOSE NITRATE) PLASTICS

No Changes

CHAPTER 66 UNSTABLE (REACTIVE) MATERIALS

No Changes

CHAPTER 67 WATER REACTIVE SOLIDS AND LIQUIDS

No Changes

CHAPTERS 68 THROUGH 79 RESERVED

CHAPTER 80 REFERENCED STANDARDS

No Changes

APPENDIX B FIRE-FLOW REQUIREMENTS FOR BUILDINGS

Appendix B - Fire Flow Requirements for Buildings: Is hereby **AMENDED** by **ADDING** the sentences: Buildings not capable of providing fire flow shall be required to install an automatic fire sprinkler system in accordance with Section 903.3.1.3. Additions to existing and newly constructed one- and two-family homes may request a complete fire risk analysis to determine the minimum levels of fire protection.

APPENDIX C FIRE HYDRANT LOCATIONS AND DISTRIBUTION

No Changes

APPENDIX D FIRE APPARATUS ACCESS ROADS

Appendix D - Fire Apparatus Access Roads is hereby amended by:

Section D102.1 Access and Loading: Is **AMENDED** by **DELETING** 75,000 and **ADDING** 82,000.

Section D103.2 Grade: Is AMENDED by DELETING 10 and ADDING: 15 percent in grade unless approved by the fire code official.

Section D103.4: Is **AMENDED** by **ADDING** an exception to Table D103.4 Requirements for Dead-End Fire Apparatus Access Roads – Exception: 84-foot diameter cul-de-sacs are allowed where the parking of vehicles in the cul-de-sac is prohibited.

Section D103.6 Signs Exception: Is **AMENDED** by **ADDING**: Signs may be modified as directed by the fire code official.

ADDING a new section: **D103.6.3 Sign Spacing and Visibility**: Signs required by Sections D103.6.1 and D103.6.2 shall be spaced along the roadway at 150 foot intervals. Signs required by Section D103.6.2 shall be mounted back to back to be visible on both sides of the roadway for either directions of travel.

APPENDIX E HAZARD CATEGORIES

No Changes

APPENDIX F

HAZARD RANKING

No Changes

APPENDIX G CRYOGENIC FLUIDS-WEIGHT AND VOLUME EQUIVALENTS

No Changes

APPENDIX H HAZARDOUS MATERIALS MANAGEMENT PLAN (HMMP) AND HAZARDOUS MATERIALS INVENTORY STATEMENT (HMIS) INSTRUCTIONS

No Changes

Appendix Is **AMENDED** by **ADDING**:

APPENDIX O FEE SCHEDULE

O101.1 Fee Schedule: Permit fees are to be based on the most current fee schedule approved by the GRFD Fire Board.