

ORDINANCE NO. 18 – O – 01

**AN ORDINANCE AMENDING THE FIRE PREVENTION CODE
FOR THE COUNTRYSIDE FIRE PROTECTION DISTRICT**

WHEREAS, the Countryside Fire Protection District is a fire protection district duly organized under the laws of the State of Illinois; and

WHEREAS, the Board of Trustees of the District has express power pursuant to 70 ILCS 705/11, to adopt and enforce fire prevention codes and standards parallel to national standards to promote fire prevention; and

WHEREAS, the Board of Trustees of the District also has full power pursuant to 70 ILCS 705/6, to pass all necessary ordinances, and rules and regulations for the proper management and conduct of the business of the Board of Trustees of the District for carrying into effect the objects for which the District was formed; and

WHEREAS, the Fire Protection District Act, 70 ILCS 705/11, (the "Act") empowers and makes it the legal duty and obligation of this Board of Trustees to provide as nearly adequate protection from fire for all persons and property within the District as possible and to prescribe necessary regulations for the prevention and control of fire therein; and

WHEREAS, the District is empowered by the Act to provide reasonable safeguards through Fire Prevention Codes to protect the Public Health and Safety against the hazards of fire in buildings and structures; and

WHEREAS, the Board previously passed an ordinance adopting a fire Prevention Code for the District; and

WHEREAS, the Board of Trustees of the District deem it in the best interest of the District to amend and adopt a new Fire Prevention Code using the 2018 Edition of the International Fire Code as the District's model for the control of fire protection in buildings and structures as herein provided; and each and all of the regulations, provisions, penalties, conditions and terms as amended by the Fire Prevention Codes listed in **Exhibit A** hereto, are hereby adopted and made a part thereof, as if fully set out in this Ordinance, except for the additions, insertions, deletions and changes set forth in **Exhibit A** to this Ordinance; and

WHEREAS, the 2018 Edition of the ICC International Fire Code is a comprehensive compilation of codes designed to meet the needs of the local fire

jurisdictions through model code regulations that prescribe safeguards for the safety and public health of all communities; and

WHEREAS, the ICC (International Code Council) is a result of the consolidation of three previously recognized model code organizations: BOCA (Building Officials & Code Administrators), ICBO (International Conference of Building Officials) and SBCCI (Southern Building Code Congress International; and

NOW, THEREFORE, be it ordained by the Board of Trustees of the Countryside Fire Protection District, Lake County, Illinois, as follows:

SECTION 1: The facts and statements contained in the preamble to this Ordinance are hereby found by the Board of Trustees to be true and correct and are hereby adopted as part of this Ordinance.

SECTION 2: The fire prevention code of the Countryside Fire Protection District (hereinafter referred to as the "Fire Prevention Code") shall hereafter be identical with the provisions of the publication(s) listed in **Exhibit A** hereto, and said publication(s) listed in Exhibit A hereto are hereby incorporated herein by reference as if fully set forth, except as amended in **Exhibit A** to this Ordinance. At least three (3) copies of this Fire Prevention Code shall be placed on file with the District and shall be available for public inspection at all times during regular business hours as provided by law.

SECTION 3: That it shall be unlawful to design, construct, alter, enlarge, repair, demolish, remove, use or maintain any building or structure within the boundaries of the Countryside Fire Protection District in violation of any terms or provisions of this Ordinance.

SECTION 4: That the specific terms and conditions of this Ordinance shall prevail against other existing ordinances of the District to the extent that there might be any conflict.

SECTION 5: Any person, business, firm, corporation, entity or property owner with a proven violation of this Code shall be responsible for all fees, costs and expenses, including but not limited to attorney fees, litigation, adjudication and settlement costs, incurred by the Countryside Fire Protection District in enforcing the provisions of the adopted Code. All persons in violation of the Fire Prevention Code shall be subject to fines as set forth and established in Subsection 109.4, Subsection 111.4, Subsection 907.10.6 and Subsection 3311.3 of the Code. Those Subsections shall be added or amended as follows:

Subsection 109.4 Violation penalties. Amended to read as follows:

Amended: Any person, firm or corporation who shall violate any provision of this Code or shall fail to comply with any of the requirements thereof or shall erect, construct, alter or repair a building or structure in violation of an approved plan or directive from the Code Official, or of a permit or Certificate of Occupancy issued under the provisions of this Code, shall be guilty of a misdemeanor, punishable by a fine of not less than \$150.00 and not more than \$750.00, or by imprisonment not exceeding 180 days, or both such fine and imprisonment. Each day the violation continues after due notice has been served shall be deemed a separate offense.

Subsection 111.4 Failure to comply. Amended to read as follows:

Amended: 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 liable to a fine of not less than \$150.00 dollars or more than \$750.00 dollars for each offense payable to the Countryside Fire Protection District.

Subsection 907.10.6 Penalties. Amended to read as follows:

Amended: Any person who violates any of the provisions of Section 907.10.7 shall be subject to a fine of not more than \$500.00 for each violation. Such fines shall be in addition to any other fee or charge authorized pursuant to the terms of the ordinance codified in this chapter.

Subsection 3311.3 Fines for violations. Amended to read as follows:

Amended: Any person, firm, partnership, association or corporation found violating any of the provisions of this chapter shall be fined not less than one hundred and fifty dollars (\$150.00), but not more than seven hundred and fifty dollars (\$750.00). All fines shall be paid to the Countryside Fire Protection District.

SECTION 6: Future versions of the District's Fire Prevention Code shall be revised by Board approval of additional **Exhibits** hereto that amend the current **Exhibit A**. All such revisions shall be dated and shall be effective upon approval by the Board of Trustees.

SECTION 7: The Board of Trustees of the District hereby declares that should any section, paragraph, sentence or word of this Ordinance or of the Code hereby adopted be declared for any reason to be invalid, it is the intent of said Board of Trustees that it would have passed all other portions of this Ordinance independent of the elimination here from of such portion as may be declared invalid.

SECTION 8: Neither the enactment of this Ordinance nor the repeal of any ordinance or parts of ordinances as provided for herein shall be construed to affect or abate any action or cause of action for violation of said prior ordinance or ordinances.

SECTION 9: That this Ordinance shall be in full force and effect from and after its passage, approval and publication in accordance with the law.

ADOPTED this 15th day of March, 2018 by the following roll call vote:

AYES: Ublowicz, Brown, Hogan

NAYS: 0

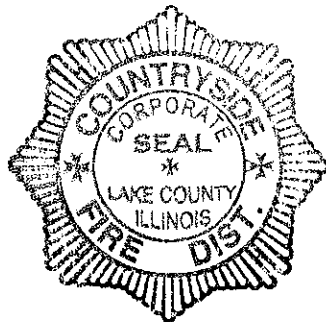
ABSENT: 0

Francis Ublowicz
President, Board of Trustees
Countryside Fire Protection District

ATTEST:

[Signature]
Secretary, Board of Trustees
Countryside Fire Protection District

SEAL



STATE OF ILLINOIS)
)
COUNTY OF LAKE) SS

SECRETARY'S CERTIFICATE

I, **BRUCE BROWN**, the duly qualified and acting Secretary of the Board of Trustees of the Countryside Fire Protection District, Lake County, Illinois, do hereby certify that I am the keeper of its books and records and that the attached hereto is a true and correct copy of an Ordinance entitled:

ORDINANCE NO. 18 – O – 01

**AN ORDINANCE ADOPTING FIRE PREVENTION CODES
FOR THE COUNTRYSIDE FIRE PROTECTION DISTRICT**

which Ordinance was duly adopted by said Board of Trustees at a regular meeting held on the 15th Day of March, 2018.

I do further certify that a quorum of said Board of Trustees was present at said meeting and that the Board complied with all requirements of the Illinois Open Meetings Act.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the District this 15th Day of March, 2018.

SEAL




Bruce Brown, Secretary
Countryside Fire Protection District

EXHIBIT A

COUNTRYSIDE FIRE PROTECTION DISTRICT FIRE PREVENTION CODE

2018 EDITION OF THE INTERNATIONAL FIRE CODE WITH CERTAIN AMENDMENTS

ADOPTION OF THE INTERNATIONAL FIRE CODE 2018 EDITION

The regulations of the 2018 edition of the International Fire Code, as published by the International Code Council is hereby adopted as the regulations governing the safeguard of life and property from the hazards of fire and explosion arising from the storage, handling and use of hazardous substances, materials and devices; and from conditions hazardous to life or property in the use or occupancy of existing or proposed new buildings or premises in the Countryside Fire Protection District with such amendments as are hereafter set forth.

CHAPTER 1 - ADMINISTRATION

SECTION 101 – SCOPE AND ADMINISTRATION

101.1 Title

Delete this section and insert the following:

These regulations shall be known as the Fire Code of the Countryside Fire Protection District, hereafter referred to as "this Code".

SECTION 102 – APPLICABILITY

102.7 Referenced codes and standards

Delete this section in its entirety and insert the following:

The codes and standards referenced in this Code, listed in Chapter 80 and Appendixes B, C and D are hereby incorporated into the Countryside Fire Prevention Code and shall be considered part of the requirements of this Code to the prescribed extent of each such reference. Where differences occur between the provisions of this Code and referenced standards, the more restrictive standard shall apply.

SECTION 103 – DEPARTMENT OF FIRE PREVENTION

103.1 General

Delete this section and insert the following:

A Fire Prevention Bureau is hereby established within the Countryside Fire Protection District under the direction of the Fire Marshal. The function of the Fire Prevention Bureau shall include, but not be limited to the implementation, administration and enforcement of the provisions of this Code along with other duties deemed necessary by the Chief in the interest of Public Safety.

103.2 Appointment

Delete this section and insert the following:

The Chief of the Countryside Fire Protection District shall, by reason of said position, shall appoint personnel of the Countryside Fire Protection District to assist in enforcing this Ordinance. Such appointments shall include, but be not limited to a Fire Marshal, and as many inspectors, investigators, and public safety educators as may be needed. For the purposes of this Code, the Fire Marshal is the same as the Code Official.

SECTION 104 – GENERAL AUTHORITY AND RESPONSIBILITIES

104.8 Modifications

Delete this section and insert the following:

The Chief of the Countryside Fire Protection District may grant a variance regarding any of the provisions of this Code upon application in writing by the owner or lessee of the building or structure, or their duly authorized agent, where there are practical difficulties in the way of carrying out the strict letter of this Code, provided that the spirit of the Ordinance codified in this chapter shall be observed, public safety secured, and substantial justice done. If the Fire Chief decides to grant a variance, he may place conditions thereon. The decision of the Fire Chief in either granting or denying the variance shall be in writing and entered in the records of the Countryside Fire Protection District. A signed copy of the Fire Chief's decision shall be furnished to the applicant.

104.10.2 Reporting hazardous locations

Add as an additional section:

Any person discovering the evidence of spontaneous heating or other abnormal heating of any kind in any building, marine vessel, appliance, apparatus, tank, or open stack or pile, or any person upon discovering or being apprised of an uncontrolled hazardous gas leak or hazardous material or flammable and/or combustible liquid spill, shall immediately notify the Countryside Fire Protection District.

SECTION 105 - PERMITS

105.6 Required

Add wording in this section and insert the following:

Permits shall be obtained from the Countryside Fire Protection District as required in other sections of this Code. Permits shall be valid only for the calendar year they were issued for, or until the expiration date on the permit for temporary permits. A new permit along with the fee set forth in Section 105.8 shall be required each calendar year. Issued permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the Code Official.

105.8 Operational Permit Fees (Annual Permit Fee or Event)

Add as an additional section:

The following fees are established for any operational permits required by this Code, and shall be submitted along with the permit application:

Air-supported structures, temporary	\$25.00
Aerosol products, flammable and combustible	\$50.00
Amusement buildings or events (outdoors) per event	\$25.00
Automotive service station and repair garages	\$50.00
Aviation facilities	\$50.00
Battery Systems	\$50.00
Bowling establishment	\$25.00
Calcium carbide storage	\$25.00
Carnivals and fairs	\$25.00
Cellulose nitrate film	\$25.00
Combustible dust-producing operations	\$25.00
Combustible fibers, except agricultural storage	\$25.00
Compressed gases	\$25.00
Corrosives	\$25.00
Covered mall buildings	\$50.00
Cutting and welding, calcium carbide and acetylene generators	\$25.00
Cryogenic liquids	\$25.00
Day care centers	\$25.00
Dry Cleaning Plants	\$25.00
Dust producing materials, explosion hazards	\$50.00
Education use groups (not for profit)	N/C
Emergency responder radio coverage system	\$25.00
Education use groups (for profit)	\$25.00
Exhibits and trade shows	\$25.00
Explosives, ammunition and blasting agents	\$25.00
Fire hydrants and valves (private)	\$25.00
Fireworks (pyrotechnic display – per job)	\$25.00
Flammable and combustible liquids	\$50.00
Flammable solids	\$50.00
Floor finishing	\$50.00
Fruit and crop ripening	\$25.00
Fumigation and thermal insecticidal fogging (per event)	\$25.00
Licensed group homes	\$25.00
Lumber and woodworking plants with more than 100,000 board ft.	\$50.00
Hazardous materials, storage and handling	\$50.00
Hazardous production material facilities	\$50.00
Health hazard materials, storage and handling	\$50.00
High piled storage	\$50.00
Hot work operations	\$50.00
Industrial ovens	\$50.00
LP-gas, storage, use and handling	\$50.00
Liquefied/gas fueled vehicles or equipment in assembly buildings	\$50.00
Lumber yard and woodworking plants with more than 100,000 board ft.	\$50.00
Magnesium	\$25.00
Marine service and repair garages	\$50.00
Matches, manufacture or storage of	\$25.00
Material storage facilities	\$25.00
Miscellaneous combustible storage	\$25.00
Oil and gas production	\$50.00
Open flames and candles – torches for removing paint, candles, etc.	\$25.00
Open burning (Except recreational fires)	\$50.00

Organic coatings, process	\$25.00
Ovens and furnaces, industrial type processes	\$50.00
Oxidizers, liquid and solid	\$25.00
Pesticides, storage and handling	\$25.00
Places of assembly and education for profit	\$25.00
Places of assembly and education not for profit	N/C
Pyroxylin plastics	\$25.00
Radioactive materials	\$25.00
Recreational and sport vehicle service and repair	\$50.00
Refrigeration Equipment	\$25.00
Rooftop Heliport	\$50.00
Solar photovoltaic power systems	\$25.00
Storage of scrap tires and tire by-products	\$50.00
Temporary membrane structures, tents and canopies	\$25.00
Toxic solids and liquids	\$25.00
Unstable (reactive) chemicals, storage and handling	\$25.00
Waste handling	\$50.00
Water material handling facilities	\$25.00
Water-reactive materials, storage and handling	\$25.00
Welding and cutting operations, electric or gas	\$25.00
Wood Products	\$25.00

Add as additional sections:

105.9 Site development and construction plan review

Each applicant for a building permit involving new construction, additions and/or alterations, subdivision improvements, Planned Unit Developments (PUD's), fire detection/suppression systems or any other item that will affect the Countryside Fire Protection District operation, shall submit to the Code Official for review and approval, three (3) sets of all required plans, documents and a complete description of work to be performed. Only site development and sprinkler system plans and documents will be required for all single family residences. The Code Official shall, within ten (10) days, examine said plans and documents to determine compliance with the applicable codes, standards, ordinances and good fire safety practices. If said plans are approved, the Code Official shall endorse said plans accordingly, and deliver said plans to the applicant and/or Building Official. If said plans are found to be unsatisfactory, then said plans shall be returned to the applicant and/or Building Official with a memorandum listing the specified deficiencies found. A copy of the list of deficiencies shall be delivered to the applicant and/or Building Official with a recommendation to reject said plans until corrected.

105.9.1 Plan review and site inspection fee schedule

Each applicant shall pay the following plan review and site inspection fees for review and site inspection by the Countryside Fire Protection District Fire Prevention Bureau. No part of said fees shall be refundable. Plan review fees shall include re-reviews, along with preliminary site visits up to a total of three (3) inspections for the each category. Contact the Countryside Fire Protection District for the plan review and site inspection fee schedule. Submit three (3) sets of fire sprinkler shop drawings and construction documents for plan review.

Site Plan – New development	\$200.00
New construction and/or large scale remodel > 15,000 sq ft	
Life Safety Review: \$.010 cents per sq ft, minimum	\$300.00
Small scale tenant finish or remodel < 15,000 sq ft	
Life Safety Review:	\$200.00
Custom Mall Kiosks	\$ 75.00
Automatic fire-extinguishing systems	
NFPA 13 or 13R:	\$200.00 plus \$3.00 per sprinkler
NFPA 13D (Single family residences):	\$200.00
Small scale tenant remodel of sprinkler system:	\$150.00
Combination pre-action/clean agent:	\$450.00
Other fire suppression systems (Wet Chemical, Clean Agent, Etc)	\$250.00
Standpipes	\$200.00
Fire pumps and related equipment	\$200.00
Fire alarm systems & related equipment	\$200.00 plus \$5.00 per device
Fire alarm panel replacement	\$250.00
Restaurant Mechanical Hood & Duct Systems	\$250.00
Compressed gases/Flammable & Combustible Liquids	\$100.00
Flammable and combustible liquids	\$100.00
Hazardous Materials	\$100.00
Industrial ovens	\$100.00
LP – gas	\$100.00
Private fire hydrants	\$100.00
Spraying or dipping	\$100.00
Temporary membrane structures, tents and canopies	\$100.00

NOTE: In addition to the review fees listed, the applicant shall pay, prior to the issuance of any permit, the actual costs and expenses incurred by Countryside Fire Protection District for extraordinary reviews of plans or specifications beyond the review customarily involved in the usual course of such plan reviews. Such costs and expenses shall include actual review fees by consultants or outside contractors or time spent by Countryside Fire Protection District staff. Countryside Fire Protection District staff time shall be billed at an hourly rate to be determined by the Fire Chief or designee.

105.9.2 New development contribution fee

The Countryside Fire Protection has adopted a developer contribution fee of \$600 per dwelling unit for new residential developments.

Any future expansion or increase in density, following approval of the preliminary plat, will be subject to the contribution payment schedule. Payment will be due at a time agreed upon by both parties prior to the issuance of any building permits.

Developer contribution fees for commercial buildings will be assessed at a rate of \$.20 per square foot.

In addition to the above referenced fees, each developer will be required to contribute \$100.00 per home or building for the emergency outdoor warning siren system.

The Countryside Fire Protection District may require a capital contribution for buildings or developments that have a profound impact on emergency operations as deemed necessary by the Fire Chief. Such contributions shall include, but not be limited to senior citizen

developments, multi-story buildings, large commercial retail projects, use or storage of hazardous materials, etc. The Fire District only extends property tax and is not a benefactor of sales tax. Full realization from tax revenue is typically not fully collected for three years; therefore this contribution will assist in offsetting full service costs incurred.

SECTION 108 - BOARD OF APPEALS

108.1 Board of appeals established

Delete this section and insert the following:

Whenever the Code Official shall disapprove an application, or refuse to grant permission or when it is claimed that the true intent and meaning of the Ordinance have been misconstrued or wrongly interpreted, the applicant or person affected may appeal the decision of the Code Official to the Chief of the Countryside Fire Protection District by written notice filed in the Countryside Fire Protection District Chief's office within ten (10) days from the date of the decision being appealed. The said Chief shall call a hearing on said appeal within sixty (60) days of said notice of appeal filing, and shall render a decision within (10) days after completing such hearings. Nothing herein shall restrict the Code Official from seeking immediate enforcement of the regulation of this Ordinance in Court where the hazard involved requires such action.

108.1.1 Court of jurisdiction

Any person aggrieved by a decision of the Board, may apply to the appropriate Court of Jurisdiction. Application for review shall be made to the proper court within fifteen (15) days after the filing of the Board's decision in the office of the Secretary of the Board.

SECTION 109 - VIOLATIONS

109.4 Violation Penalties

Delete this section and insert the following:

Any person, firm, or corporation who shall violate any provision of this Code or shall fail to comply with any of the requirements thereof or shall erect, construct, alter or repair a building or structure in violation of an approved plan or directive from the Code Official, or of a permit or Certificate of Occupancy issued under the provisions of this Code, shall be guilty of a misdemeanor, punishable by a fine of not less than \$150.00 and not more than \$750.00, or by imprisonment not exceeding 180 days, or both such fine and imprisonment. Each day the violation continues after due notice has been served shall be deemed a separate offense.

SECTION 111 – STOP WORK ORDER

111.4 Failure to comply

Delete and insert the following:

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 liable to a fine of not less than \$150.00 dollars or more than \$750.00 dollars for each offense payable to the Countryside Fire Protection District.

CHAPTER 3 - GENERAL PRECAUTIONS AGAINST FIRE

SECTION 301 – GENERAL

301.3 Items not specifically covered

Add as an additional section:

Whenever or wherever a condition is found in any building, lot, or premises, that in the opinion of the Code Official is not specifically covered by the provisions of this Chapter, but that requires correction or removal for the protection of the occupants or the public, the Code Official shall order such conditions be corrected or removed and the owner or occupant of such buildings, lots, or premises shall comply with such orders.

SECTION 305 – IGNITION SOURCES

Add as additional sections:

305.1.1 Fuel burning appliances located in garages

Any fuel burning appliance located in a garage area of any occupancy mounted less than six feet above the floor shall be enclosed with a one-hour fire rated enclosure with makeup air taken from the exterior, not the garage area.

Exception: Any fuel burning appliance that is American Gas Association certified, with a safe, sealed combustion chamber (no open flame) designed with an intermittent ignition device and make-up air taken from the exterior not the garage.

305.5 Portable Heaters

Portable heaters shall be designed and located so that they cannot be easily overturned, and heaters shall be designed to shut off if overturned. The Code Official may prohibit the use of portable heaters in occupancies or situations in which such use or operation would present an undue danger to the life or property of others.

305.6 Heating and lighting apparatus

Proper clearance (a minimum of 36 inches) shall be maintained between lighting and heat producing equipment and combustibles so that continuous operation at full capacity will not increase the temperature of the surrounding combustibles to their flash point or ignition temperature.

SECTION 307 – OPEN BURNING, RECREATIONAL FIRES AND PORTABLE OUTDOOR FIREPLACES

307.1.2 Prohibited open burning

Add as additional section:

Pursuant to Public Act 97-0488, (70 ILCS 705/8.20), and as authorized by the Board of Trustees (NOV 17, 2011), the Fire Chief or a designated officer, may prohibit open burning on an emergency basis if it is deemed a fire hazard due to weather or other conditions that create an unreasonable risk.

307.6 Spread of fire

Add as additional section:

No person shall knowingly permit any fire to spread so as to endanger the life or property of another or use or operate any device which may be a source of ignition, unless proper removal of flammable material surrounding the operation is accomplished, or such other reasonable precautions are taken to ensure against the starting or spreading of unfriendly fires.

307.4.3 Portable outdoor fireplaces

Delete the exception

SECTION 308 – OPEN FLAMES

307.4.3.1 – Portable outdoor fireplaces

Add as additional section:

Portable outdoor fireplaces shall be used only on noncombustible surfaces. Fuel for an outdoor fireplace shall consist of only seasoned, dry firewood and shall be ignited with a small quantity of paper.

SECTION 315 MISCELLANEOUS COMBUSTIBLE MATERIAL STORAGE

315.4 Outside storage

Add the following wording to the end of the sentence:

"and within fifteen (15) feet to any structure."

CHAPTER 5 - FIRE SERVICE FEATURES

SECTION 503 - FIRE APPARATUS ACCESS ROADS

503.1.1 Buildings and facilities

Delete exception 1 (Renumber paragraphs No. 2 and 3)

503.1.4 Approval

Add as additional section:

The location of the fire apparatus roads or fire lanes shall be reviewed and approved by the Countryside Fire Protection District.

503.2.1 Dimensions

Delete this section and insert the following:

Fire apparatus access roads shall have an unobstructed width of not less than twenty (20) feet, exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than fifteen (15) feet.

503.2.3 Surfaces

Delete this section and insert the following:

Fire apparatus access roads or fire lanes shall have a solid surface capable of supporting the appropriate fire apparatus. Fire apparatus roads shall be pitched in such a manner as to allow the runoff of water and eliminate the potential of standing water. It shall be the responsibility of the property owner to maintain the surface in a usable condition at all times, including the removal of snow.

Add as additional requirements to this section:

503.6.1 Security Gates

Where gates are used to control access to a subdivision or complex, emergency vehicle pre-emption (EVP) shall be required to be installed on all gate to allow for emergency vehicle access and shall be reviewed and approved by the Countryside Fire Protection District.

Add the following section:

507.7 Adopt IFC Appendix D – Fire Apparatus Access Roads

SECTION 506 - KEY BOXES

Delete this section and insert the following:

506.1 When required

When access to, or within a structure, or an area unduly difficult because of secured openings, or to gain access to fire protection controls, and where immediate access is necessary for life saving or fire fighting purposes, the Code Official shall require a minimum of one key lock box to be installed at a height not to exceed six (6) feet, in an accessible location. All buildings with automatic fire alarm systems and/or automatic fire suppression sprinkler systems shall have installed an approved key lock for access by the Countryside Fire Protection District. The key lock box shall be of an approved type listed in accordance with UL 1037 and shall contain keys to gain access as required by the Code Official.

506.1.1 Locks

Delete this section and insert the following:

The Code Official shall first approve any lock installed on gates or similar barriers.

506.2 Key lock box maintenance

Delete this section and insert the following:

The operator of the building shall immediately notify the Code Official and provide the new key when a lock is changed or re-keyed. The key to such lock shall be secured in the key lock box. The users shall be responsible for the proper installation and maintenance of such key lock boxes, at their expense, and shall agree to indemnify and hold harmless the Countryside Fire Protection District, and their officers, employees and agents from any liability with respect to such key lock boxes.

SECTION 507 - FIRE PROTECTION WATER SUPPLIES

507.1 Required water supply

Add as additional requirements to this section:

507.1.1 General

All water distribution facilities including piping, fittings, hydrants, valves, devices, well pumps, and other needful appurtenances shall be subject to approval of the Code Official and shall be installed according to the standards herein adopted. A water supply system shall be capable of supplying the hydrants prior to the construction of structures. It shall be unlawful to erect, alter, use or occupy any structure that has been deemed to have inadequate water supply.

507.1.2 Water supply demand changes

Area water supplies shall be studied whenever additional demands will be placed on the water supply by new construction, change in use, or changes in hazard or contents. Standard fire flow calculation methods will be used to make determinations. Upon determination by the Code Official that inadequate water supplies exist, the Code Official shall reject any applicable plans and provide the property owner, the water utility, and the Building Official with a memorandum listing said deficiencies.

507.1.3 Rural water supply requirements (Dry Hydrants)

In any subdivision/development, where an adequate water distribution system is not provided, the Code Official shall require the sub-divider, developer, builder and/or the owner to modify storm water control devices, so as to provide a pond within a maximum distance of 2,000 feet of all buildings within the development. It shall conform to the standard of NFPA 1142. The pond must be a minimum depth of five (5) feet and provide a minimum of 500,000 gallons of available water. (See Appendix B for additional rural water supply requirements).

507.3 Fire flow

Add as additional requirement to this section:

507.3.1 Minimum flow requirements

Each fire hydrant shall be provided with an adequate water supply so as to develop a minimum individual supply of not less than one thousand (1,000) gallons per minute (gpm) flow with not less than 20 pounds per square inch residual pressure for a municipal public

water supply system. Non public municipal water supply system the minimum fire flow shall be 500 hundred (500) gallons per minute (gpm) with not less than 20 pounds per square inch (psi).

507.3.2 Adopt Appendix B – Fire Flow for Buildings

507.5 Fire hydrant systems

507.5.1 Where required

Delete this section and insert the following:

The maximum hydrant spacing shall not exceed three hundred (300) feet from the furthest point of any building or structure as measured by an approved access route around the exterior of the facility or building unless otherwise approved by the Code Official. Where the configuration of lots, distances between buildings and lot lines or public utility easements, accessibility to buildings for fire suppression requirements dictate, the Code Official shall increase or decrease hydrant spacing and appropriate supply mains as deemed necessary.

Add the following section:

507.5.1.1 Adopt IFC Appendix C – Fire Hydrant Locations and Distribution

507.5.1.2 General

Additional fire hydrants shall be located within one hundred (100) feet of any Fire Department Connection (FDC). Hydrants shall not be installed on a water main less than six (6) inches in diameter. Dead end water mains shall not to exceed one hundred (100) feet of six (6) inch pipe and six hundred (600) feet of eight (8) inch pipe. It is recommended that a looped water main system with a minimum pipe diameter of eight (8) inches be required for each structure or group of structures.

507.5.7 Identification

Add as additional requirements to this section:

All fire hydrants public or private shall be marked with a number, hydrant flag and painted a color approved by the fire Code Official. At dry fire hydrants, provide signs with the wording "No Parking" with arrows and fire hydrant symbol.

507.5.8 Apartment and cluster type housing

In areas where apartment buildings, town/row houses, condominium buildings, or other types of cluster-type housing are located, the area along the roadway within seven and one-half feet on either side of the fire hydrant shall be designated as "NO PARKING" and either the curb shall be painted yellow or "NO PARKING" signs shall be installed (or both).

507.5.9 Unauthorized use

It shall be unlawful for any person to utilize any device such as a fire hydrant, drafting hydrant, dry hydrant, or other water supply appurtenances designed for fire suppression operations without the express permission of the Code Official.

SECTION 511 - ELEVATORS

511.1 When Required

Add as additional requirements to this section:

Provide elevator service for new multi-level buildings that exceed 1,000 square feet of floor area in accordance with State of Illinois Accessibility Code requirements for elevators.

Exception: One and two-family residences, unless covered elsewhere in this Code.

511.2 – Elevator car requirements

Elevator cars are to accommodate the ambulance stretcher. In the buildings two stories in height or more, at least one elevator shall be of such a size and arrangement to accommodate a 24-inch by 84-inch ambulance stretcher in the horizontal, open position and shall be identified by the international symbol for emergency medical services (Star of Life). The symbol shall not be less than 3 inches high and shall be placed inside on both sides of the hoist way doorframe. The inside hand rail shall be set at the maximum thirty six (36) inch height allowed under ADA standards to better accommodate the stretcher. The cab size is to be minimum a 5' x 7' platform and minimum 2500 lb capacity with a 42" side slide door.

CHAPTER 6 - BUILDING SERVICES AND SYSTEMS

SECTION 609 - COMMERCIAL KITCHEN HOODS

Add as additional sections:

609.4 Required kitchen hood fire suppression systems

All required commercial or other occupancy kitchen exhaust hood and duct system shall be protected with an approved wet chemical fire suppression system installed and maintained per NFPA 17, and UL 300 Standard. Every required automatic fire suppression system, when activated shall transmit a fire alarm signal to the Countryside Fire Protection District main dispatch center via an approved fire alarm system.

609.5 Maintenance

Commercial kitchen exhaust systems shall be cleaned to remove deposits of residue and grease in the system at intervals specified in the cleaning schedule required to be submitted in accordance with the mechanical code listed in Chapter 80. Thorough cleaning of ducts, hoods and fans shall require scraping, brushing or other positive cleaning methods.

609.6 Cleaning Schedule

Where a cleaning schedule is not on file, the Code Official shall require a schedule to be submitted, indicating the method of cleaning and the time intervals between cleanings.

CHAPTER 9 FIRE PROTECTION SYSTEMS

SECTION 903 – Automatic sprinkler systems

903.2 Where required

Delete this section and insert the following:

Approved automatic sprinkler systems in new buildings and structures shall be provided in all Use Groups described in this Code. Automatic sprinkler systems shall be installed in accordance with applicable NFPA standards, manufacturer's recommendations, UL listings, and good fire safety practices. Automatic sprinkler systems shall be maintained in full operating condition at all times. Automatic sprinkler systems shall be provided in all new residential Use Groups including town homes/multi-family dwellings, and one and two family dwellings which are adopted by this Code. All new single family dwellings shall have automatic fire sprinklers installed throughout per NFPA 13D. All new town homes shall have automatic fire sprinklers installed throughout per NFPA 13R or 13D. All new attached garages shall have fire sprinkler protection. The use of dry sidewall or pendant sprinklers is allowed. The area of coverage and placement shall be approved by the fire official.

Exception No. 1: Detached structures which comply with all of the following do not require automatic fire sprinkler protection.

1. Less than one thousand (1000) square feet in floor area
2. Single story
3. Not used as a dwelling
4. Not a High Hazard Use Group
5. Not used for high hazard products or hazardous materials storage
6. No basement level
7. Minimum 20 feet separation between buildings

Exception No. 2: Real estate sales and construction trailers utilized during the development of property when approved by the code official, agriculture storage buildings less than 8,000 square feet.

903.2.1 Through 903.2.11.6 Where required

Delete these sections in their entirety

Add as additional requirements to this section:

903.3.1.4 Warehouse and Storage Buildings

Unknown specification use and occupancy for new warehouse buildings (Use groups S or F) with a ceiling roof height of 25 feet or greater to be protected with ESFR (Early Suppression Fast Response) fire sprinkler system or a hydraulically calculated system for class IV commodities with rack storage calculated to the greatest storage height. All sprinkler systems shall be electronically supervised by a fire alarm system.

903.3 Installation Requirements

Add as additional requirement to this section:

903.3.8 Sprinkler valve/fire pump room

All fire sprinkler valve rooms and fire pump rooms shall be provided with minimum one hour separations from adjacent uses.

903.4.1 Monitoring

Add as additional requirements to this section:

903.4.1.1 Reporting directly to the Fire District Communication Center

Where required by the fire code official to protect from hazards to life and property, the fire alarm system shall connect directly to the Countryside Fire Protection District Communication Center. The method of connection shall be of a type approved by the Chief.

903.4.2 Alarms

Add as additional requirements to this section:

903.4.2.1 Strobe Lights

A strobe light shall be installed on the exterior of all occupancies protected by a fire sprinkler system. The strobe light shall be located directly over the Fire Department Connection and next to the 10-inch exterior bell or in a location approved by the fire code official. In a new multi-occupancy structure, an additional amber strobe light shall be installed at an approved exterior location for each unit. These devices shall activate on a water flow only. The strobe light shall be clearly visible from the Fire Department's normal access route and shall be labeled as "water flow". The type, number of appliances and location of the strobe lights and bells shall be approved by the fire code official.

903.4.2.1.1 Alarm Notification Appliance for all new NFPA 13D fire sprinkler systems for one and two family dwellings.

A strobe light shall be installed on the exterior of new one and two family dwellings for activation of water flow. A minimum of one 10 inch water flow alarm bell shall be installed on the interior of new one and two family dwellings (on the return air supply duct). The type, number of appliances and location of strobe lights and bells shall be approved by the fire code official.

903.4.2.2 Building Notification

Alarm indicating appliances audio visual devices shall be provided, seen and heard in all areas of every building per NFPA 72. All sprinklered buildings shall be provided with occupant notification devices. This will provide full building notification per NFPA 72.

903.4.2.3 Inspector's Test Valve accessibility and Identification

Fire sprinkler system inspectors test valves shall be accessible at all times and located no more than 6 feet above the finished floor unless approved otherwise by the fire code official. On multiple riser systems, test valves shall be marked as to which riser and area it tests.

903.4.3 Floor control valves

Delete this section and insert the following:

In multi story buildings, approved supervised indicating floor control valves with water flow switches shall be provided for each floor at the point of connection to the riser. In large multi tenant buildings, approved control valves with water flow switches shall be provided for each tenant. This will make it easier for the fire department personnel to locate the fire and will eliminate birdcage sprinkler systems where the alarm is for the whole building.

903.4.3.1 Sprinkler control valves

All new and existing sprinkler control valves shall be equipped with electronic supervision (tamper switches) in accordance with NFPA 72. All new tamper switches installed shall have the capability to self restore. All supervisory signals shall be transmitted directly to the Countryside Fire Protection District main dispatch Communication Center.

903.6 Where required in existing buildings and structures

Add as additional sections:

903.6.1 Interior alterations or remodeling

Existing buildings or structures that are remodeled, and that meet any of the criteria listed below, shall provide fire protection as detailed in 903.2:

1. If alteration costs 50% or more of the reproduction cost of the building or structure, the entire building or structure shall comply with the requirements of the construction as defined in this code. The reproduction cost shall be determined by using the recognized standards of an authoritative technical organization. For the purposes of calculating percentages of reproduction cost, the cost of alteration shall be construed as the total actual combined cost of all alterations within any period of 30 months.
2. A project that results in an increase or decrease in the total number of tenant spaces within the building or structure.
3. A project that entails a change in Use Group for any part of the building.

Exception: One - and two - family dwellings.

903.6.2 Increasing existing gross floor area by 25% or more up to 50%

Fire protection for additions that increase the existing gross floor area of a building or structure by 25% or more and up to 50%:

1. Provide fire protection for the entire building or structure as detailed in 903.2 or
2. Provide a UL listed three hour fire separation assembly between the existing building and the new addition. Provide fire protection for the new addition as detailed in 903.2.

Exception: One - and two - family dwellings

903.6.3 Increasing existing gross floor area by more than 50%

Fire protection as detailed in 903.2 shall be required for the entire building or structure for additions that increase the existing gross floor area of a building or structure by more than 50%.

Exception: One - and two dwellings

903.7 Automatic Sprinklers

Where automatic sprinkler provide protection to an area with an approved flow switch interconnected to the fire alarm system, and is easily identifiable as to the location, additional automatic detectors are not required. When a building has numerous rooms protected by the zone sprinkler system, the fire code official may require additional smoke detectors for a more rapid means to identify the location of smoke or fire.

903.8 Hydraulic Nameplate

By each hydraulically calculated area, on each drawing, provide a copy of the hydraulic nameplate. This will make it easier to check the hydraulics of the sprinkler system for future building or storage changes.

903.9 References to NFPA Standards

All listed references to NFPA standards are to be considered part of this code. This will require sprinkler system installations to be installed per NFPA requirements and NFPA recommendations for good engineering practices and installations. The appendixes of all NFPA standards are to be considered as part of each standard and are considered a "shall" requirement and not "should" information. This will require sprinkler system installations to be installed per NFPA requirements and NFPA recommendations for good engineering practices and installations.

903.10 Fire pump test header

Provide an outside test header on all fire pump installations. An OS&Y control valve shall be provided on all fire pump test headers.

903.11 Sprinkler riser and/or fire pump room access door

Provide an outside access door to the sprinkler riser room and/or fire pump room. The door shall be labeled with minimum 4 inch letters.

903.12 Separation of sprinkler riser and/or fire pump room

Provide a minimum one (1) hour fire separation for the sprinkler riser room and/or the fire pump room.

903.13 Hydraulic calculations

Provide a minimum 10% or 5 psi minimum safety factor in the fire protection system hydraulic calculation. The system demand shall be 5 psi minimum below the seasonal low water flow test supply. The safety factor will allow for low pressures in the water supply. By

each hydraulic calculated area, on each drawing, provide a copy of the hydraulic nameplate. This will make it easier to check the hydraulics of the sprinkler system for future building or storage changes.

903. 14 Fire hose valves – Warehouse and/or storage Fire Areas

In all warehouse storage areas exceeding 50,000 square feet, and where storage exceeds twelve (12) feet high, provide inside 2 ½" fire hose valves with 1 ½" reducer to a 1 ½" connection. Locate the valves at each door entrance to the warehouse and/or storage area. Provide additional 2 ½" fire hose valves so that no portion of the warehouse and/or storage area is more than 120' maximum travel distance to a fire hose valve. Show the location of all obstructions and/or racks on the drawings.

Fire hose valves system piping shall be:

1. A separate riser piping system.
2. The 2 ½" valves shall be supplied by a minimum of 4" with 2 ½" drops to each valve.
3. Where system pressures exceed 100 psi, provide Potter reduced pressure field adjustable type valves.

903.15 Large warehouse system check valves

Provide a check valve in each sprinkler riser on large warehouse systems. This will prevent multiple sprinkler system riser flow switches from activating (backwards) when large volumes of water are flowing through another riser.

SECTION 905 – STANDPIPE SYSTEMS

905.3 Required installations

Add the following paragraph to section 905.3:

All required standpipe systems shall be supplied by a separate riser. The supply riser shall be hydraulically designed to supply 2 ½" hose drops. The riser system shall be equipped with a separate control valve and flow switch. The standpipe shall be a 2 ½" gated connection with a 1 ½" reducer and all locations shall be approved by the Code Official. All standpipe and sprinkler risers shall have separate control valves and flow switches per floor.

905.3.1 Building height

Delete this section except for the exceptions and insert the following:

Class III standpipe systems shall be installed throughout buildings or structures (1) in all newly constructed buildings so that all areas in excess of 120 feet from the nearest point of entry to the building shall be covered by a standpipe; (2) in all areas of existing structures which have been remodeled or added to in such a manner that those areas are located in excess of 120 feet from the nearest point of entry to the building; (3) in all newly constructed buildings or structures more than two (2) stories in height or more than two (2) stories below the highest level of fire department vehicle access so that all areas on those floors are within 120 feet of a standpipe; and (4) in all buildings or structures more than two (2) stories in height or more than two (2) stories below the highest level of fire department vehicle access which have been remodeled or added to in such a manner so that those areas are located in excess of 120 feet from the nearest standpipe. The standpipes shall be provided with a 2½" to 1½" reducer and cap with no fire hose. There shall be an approved fire department connection at grade and hose connections located at each floor level.

Exceptions 1 through 5 shall remain

Add as additional sections: 905.12 through 905.14

905.12 Piping design

The riser piping, supply piping and the water service piping shall be sized to maintain a residual pressure of at least 65 psi (448kPa) at the topmost outlet of each riser. The piping size shall be based on the capacity of the automatic water supply system or, where as automatic water supply is neither required nor provided to maintain the residual pressure of 65 psi, the pipe size shall be on a pressure of 150 psi available at the fire department connection.

Exception: The residual pressure of 65 psi is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3 and where the highest floor level is not more than 150 feet above the lowest level of fire department vehicle access.

Exception: One – and two – family dwellings

905.13 Riser sizing

The riser size shall be based on the hydraulic calculations for a minimum flow of 500 gallons per (gpm) (378 L/min.).

Exceptions:

1. Where only 1 ½" valves are provided, the riser(s) shall be sized to provide a minimum flow of 100 gpm (378 L/min.).
2. In buildings where limited area sprinkler systems are supplied with water from a common standpipe riser, the riser shall be sized to satisfy total demand.
3. For occupancies Use Group B, I, R1, or R2 in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3, each riser shall be sized for a minimum flow of 250 gpm (945 L/min.).
4. Risers that are sized in accordance with the pipe schedule requirements of NFPA 14 listed in Chapter 35 are not subject to this requirement.

905.14 System pipe sizing

The system piping, including the horizontal or common feeder lines, shall be sized for a minimum flow of 500 gpm (1892 L/min.). Where more than one standpipe riser is required or provided, all common system piping shall be sized for a minimum flow of 500 gpm (1892 L/min.) for the first riser plus 250 gpm (945 L/min.) for each additional riser, and the total shall not be required to exceed 1,250 gpm (4731 L/min.).

Exception:

1. Where only 1 ½" valves are provided, the supply piping shall be sized for a minimum flow of 100 gpm (378 L/min.) for each riser, and the total shall not be required to exceed 500 gpm (1892 L/min.).
2. In buildings where limited area sprinkler systems are supplied with water from a common standpipe riser, the supply piping shall be sized for a minimum flow of 500 gpm (1892 L/min.) plus the sprinkler demand for first riser, plus 250 gpm (945 L/min.) for each additional riser, and the total shall be required to exceed 1,250 gpm (4731 L/min.).
3. For occupancies in Use Group B, I, R-1, or R2 in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3, all common supply piping shall be sized for a minimum flow of 250 gpm (945 L/min.) for the first riser plus 250 gpm (945 L/min.) for each additional riser, and the total shall not be required to exceed 750 gpm (2838 L/min.).

SECTION 906 – PORTABLE FIRE EXTINGUISHERS

906.1 Where required

Delete the exception in paragraph 1

Add the following paragraphs:

1. Where deemed necessary by the fire code official based on plan reviewing, inspections of occupancies, or protection of processes and/or activities.
2. Fire extinguishers shall be a minimum 10 pound (4A:40-B: C) ABC Dry Chemical type unless approved otherwise by the fire code official. All fire extinguishers shall have location signs and current services tags

SECTION 907 - FIRE ALARM AND DETECTION SYSTEMS

907.1.3 Equipment

Add the following language to the existing section:

New fire alarm control panels shall be addressable unless otherwise approved by the Code Official. The equipment shall be capable of having the audio signal silence without resetting the fire alarm control panel. All fire alarm control panels shall have an approved method of placing the system in trouble mode at the location of the alarm panel.

907.2 Where required – new buildings and structures

Delete wording and insert the following:

An approved manual, automatic, or manual and automatic fire alarm system shall be provided in all Use Groups of new buildings and structures in accordance with sections 907.2.1 through 907.2.23. Fire alarm systems shall be maintained in full operating condition at all times. All fire alarm control panels or full function annunciator panels shall be installed within 10 feet of the main entrance, or in a location approved by the fire code official. Occupant notification shall be in accordance with section 907.5, unless other requirements are provided by another section of this code. Where automatic sprinkler protection is installed in accordance with section 903.3.1.1 or 903.3.1.2 is provided and connected to the building fire alarm system, automatic heat detection required by this section shall not be required. An approved automatic fire detection system shall be installed in all Use Groups, not provided with an automatic sprinkler system, in accordance with the provisions of this code and NFPA 72. Devices, combinations of devices, appliances and equipment shall comply with Section 907.1.2. The automatic fire detectors shall be smoke detectors, except that an approved alternative type of detector shall be installed in spaces such as boiler rooms where, during normal operation, products of combustion are present in sufficient quantity to actuate a smoke detector. If the alteration costs 50 percent or more of the reproduction cost of the building or structure, the entire building or structure shall comply with the requirements of new construction as defined in this code. For the purpose of calculating percentages of reproduction cost, the cost of alteration shall be construed as the total actual combined cost of all alterations made within any period of 30 months.

Exception: One and two family residences, unless specified elsewhere in this Code.

907.2.1 Group A

Delete this section and insert the following:

A manual fire alarm shall be installed in accordance with NFPA 72 in Group A occupancies.

907.2.1.3 Group A-2

Delete this section and insert the following:

An automatic fire alarm detection system shall be installed in accordance with NFPA 72 in Group A-2 occupancies that have an occupant load of 50 or more persons.

907.2.2 Group B

Delete this section and insert the following:

A manual fire alarm system shall be installed in accordance with NFPA 72 in group B occupancies.

907.2.3 Group E

Delete this section and insert the following:

A manual fire alarm system shall be installed in group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

907.2.4 Group F

Delete this section and insert the following:

A manual fire alarm system shall be installed in accordance with NFPA 72 in group F occupancies.

907.2.5 Group H

Delete this wording and section and insert the following:

A manual fire alarm system shall be installed in Group H occupancies. An automatic detection system shall be installed for highly toxic gases, organic peroxides and oxidizers in accordance with Chapters 37, 39 and 40 respectively.

907.2.6 Group I

Delete this section and insert the following:

A manual fire alarm system and automatic fire detection system shall be installed in group I occupancies. An electrically supervised, automatic smoke detection system shall be provided in waiting areas that are open to corridors.

907.2.6.1

Delete this section

907.2.6.3 Group I-3 occupancies

Delete this section and insert the following:

All required fire protective signaling systems shall transmit alarm, supervisory, and trouble signals directly to the Countryside Fire Protection District main dispatch Communication Center in accordance with NFPA 72 via a two-way radio transmitter. Future methods of connection shall be determined by the Chief.

Exceptions:

1. Smoke detectors in buildings of groups R-3 and R-4.
2. Single-station smoke detectors as required by 907.2.9.
3. Smoke detectors in building group I-3.
4. Smoke detectors in patient sleeping areas of group I-2.

907.2.7 Group M and S

Delete this section and insert the following:

A manual fire alarm system shall be installed in accordance with NFPA 72 in group M and S occupancies.

907.2.7.1 Delete this section

907.2.8 Group R-1

Delete this section and insert the following:

A manual fire alarm system and an automatic fire detection system shall be installed in group R-1 occupancies.

Exceptions:

1. A manual fire alarm system is not required in buildings over two stories in height where all individual guestrooms and contiguous attic and crawl spaces are separated by at least one-hour fire partitions and each individual guestroom has an exit directly to a public way, exit court or yard.
2. An automatic fire detection system is not required in buildings that do not have interior corridors serving guestrooms and where guestrooms have a means of egress door opening directly to an exterior exit access that leads directly to the exits.
3. A separate fire alarm detection system is not required in buildings that are equipped throughout with an approved supervised automatic sprinkler system and a manual fire alarm system.

907.2.9 Group R-2

Delete this section and insert the following:

A manual and automatic fire detection system shall be installed and maintained in common areas in all occupancies in use group R-2 such as corridors, hallways, stairwell, boiler or furnace rooms, laundry rooms, community rooms, meeting rooms, offices, attics and all other similar common areas within buildings. The automatic fire detection system must include occupant notification.

907.2.9.1

Delete this section

907.2.11 Single and multiple station smoke alarms

Add the following wording after NFPA 72:

“, The current State of Illinois Smoke Detector Act (425 ILCS 60/1, et. seq.) ” and all the rules and regulations of the Illinois State Fire Marshal”.

907.2.11.1.1 Group R-1

Add the following location requirements for smoke detector placement:

4. Within 15 feet outside of any sleeping area
5. At the top of every stair
6. Within 15 feet of any furnace

907.2.11.1.2 Group R-2, R-3, R-4 and I-I

Add the following location requirements for smoke detector placement:

4. Within 15 feet outside of any sleeping area
5. At the top of every stair
6. Within 15 feet of any furnace

907.2.11.4 Power source

Delete this section and insert the following:

In new construction, required smoke alarms shall receive there [their] primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for over-current protection.

Exceptions:

1. Smoke alarms are not required to be equipped with battery backup in group R-1 where they are connected to an emergency electrical system.
2. Group R-3 smoke alarms are to be 120-volt with a battery backup.

907.2.4.1

Add as additional section:

In existing buildings or structures, required smoke alarms shall receive their [their] primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for over-current protection. If the alteration costs 50 percent or more of the reproduction cost of the building or structure, the entire building or structure shall comply with the requirements of new construction as defined in this code. For the purpose of calculating percentages of reproduction cost, the cost of alteration shall be construed as the total actual combined cost of all alterations made within any period of 30 months.

Exceptions:

1. Smoke alarms are not required to be equipped with battery backup in group R-1 where they are connected to an emergency electrical system.
2. Group R-3 smoke alarms are to be 120-volt with a battery backup.

Add as additional sections:

907.3.5 Single and multiple station smoke alarms

Listed single-and multiple-station smoke alarms shall be installed in accordance with the provisions of this Code and the household fire warning equipment provisions of NFPA 72. When a system is installed within a dwelling unit it shall comply with UL 217.

907.3.6 Where required in existing one and two family dwellings

All existing one and two family residences shall have installed therein smoke detectors in accordance with Illinois Smoke Detector Act. Every single-family residence shall have at least one smoke detector installed on every story, including basements, but not including unoccupied attics. Smoke detectors shall be installed in each room used for sleeping purposes and within fifteen (15) feet of the entrances of all rooms used for sleeping purposes. The signal shall be clearly audible within each room used for sleeping purposes over background noise levels with all intervening doors closed. In single-family residences with split-levels, a smoke detector installed on the upper level shall suffice for the adjacent lower level if the lower level is less than one full story below the upper level. However, if there is an intervening door between the adjacent levels, a smoke detector shall be installed on each level.

907.3.7 Alterations, repairs, and additions

When interior alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be provided with smoke alarms located as required for new dwellings; the smoke alarms shall be interconnected and hard-wired.

Exceptions:

1. Smoke alarms in existing areas shall not be required to be interconnected and hard-wired where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space, or basement available which could provide access for hard wiring and interconnection without the removal of interior finishes.
2. Repairs to the exterior surfaces of dwellings are exempt from the requirements of this section.

907.3.8 Mounting of detectors

All smoke detectors shall be mounted on the ceiling at least six (6)" from the wall, or on the wall six (6) to twelve (12)" from the ceiling, except that all smoke detectors in interior common stairwells shall be on the uppermost ceiling.

907.3.9 Responsibility for installation

In single family and two family residences, it shall be the responsibility of the owner of the building or structure to supply and install all required smoke detectors. The owner shall be responsible for making reasonable efforts to test and maintain smoke detectors in interior common stairwells.

907.3.10 Maintenance of detectors

It shall be the responsibility of the tenant to test and provide general maintenance for the smoke detectors within the tenant's dwelling unit and to notify the owner or an authorized agent of the owner, in writing, of any deficiencies, which the tenant cannot correct. The owner shall be responsible for providing the tenant with written information regarding smoke detector testing and maintenance.

907.3.11 Battery replacement

The tenant shall be responsible for replacement of any required batteries in the smoke detectors in the tenant's dwelling unit, except that the owner shall ensure that such batteries are in operating condition at the time the tenant takes possession of the dwelling unit. The tenant shall provide the owner or the authorized agent of the owner with access to the dwelling unit to correct any deficiencies in the smoke detector(s), which have been reported in writing to the owner or authorized agent of the owner.

907.3.12 Low-voltage system

At the option of the owner of the building or structure, a low-voltage, standard central smoke detection system may be installed in a single-family residence or two-family residence in lieu of battery-powered smoke detectors or hard-wired smoke detectors, provided that such low-voltage standard central smoke detection system meets the requirements for such a system set forth in the Ordinance codified in this Chapter or is otherwise approved by the Code Official.

907.3.13 Existing Multi-family (three or more dwelling units) buildings

All multi-family buildings whether existing or constructed hereafter, shall have installed therein hard-wired smoke detectors as provided in this subsection.

907.3.13.1 Smoke detector locations

1. Each room used for sleeping purposes.

Exception: Existing multi-family buildings and structures have the option to install battery powered smoke detectors in lieu of hard-wired in sleeping areas. Hard-wire smoke detectors with battery back up is preferred.

2. In the immediate vicinity (minimum of 15 feet) of all entrances to rooms used for sleeping purposes.
3. Within 15 feet of any furnace.
4. A smoke detector shall be installed in each interior common stairwell (at the top of the stairs).
5. A smoke detector shall be installed in each interior common corridor or hallway at intervals of not more than thirty (30) feet.
6. A smoke detector shall be installed within each laundry room, boiler, electrical and other service room, and each tenant and building maintenance storage room. The Code Official is authorized to require an approved alternative type of detector be installed where, during normal operation, products or combustion or other conditions are present in sufficient quantity to actuate a smoke detector.

907.3.13.2 Access for maintenance

The tenant shall provide the owner or authorized agent of the owner with access to the dwelling unit to check, clean, test, maintain, repair and replace all smoke detectors therein.

907.3.13.3 Low voltage standard smoke detection system locations

The low-voltage, standard central smoke detection system shall be installed in all interior common stairwells, interior common corridors or hallways, laundry rooms, boiler, electrical and other service rooms, and tenant and building maintenance and storage rooms. The smoke detection devices connected to the low-voltage, standard central smoke detection system shall be located as provided in 907.3.9.1.

907.3.13.4 Hard wired smoke detector locations

A hard-wired smoke detector with battery back-up shall be installed in each room used for sleeping purposes. When more than one smoke detector is installed, all smoke detectors shall be so wired so that the actuation of one detector shall activate all the detectors in the dwelling unit.

907.3.13.5 Annunciator and panel control box

Each smoke detection device connected to the low-voltage, standard central smoke detection system shall be connected to an annunciator and a panel control box.

1. The annunciator shall have a visual indicator of alarm location and be installed in the entrance or on the exterior of each building or structure at the entrance, in a waterproof enclosure, as directed by the Code Official.
2. There shall be American with Disability Act (ADA) compliant horn/strobes installed in the interior common corridors, hallways, and stairwells leading to the dwelling units, which are clearly audible within such dwelling units over background noise levels with all intervening doors closed.

907.3.13.6 Fire alarm supervision

All new low-voltage, standard central smoke detection system installations shall be connected directly to the Countryside Fire Protection District dispatch Communication Center via a two-way radio transmitter at the time the system is placed into operation.

907.3.13.7 Responsibility Maintenance

In multi-family buildings or structures it shall be the responsibility of the owner of the building or structure or authorized agent of the owner thereof to install, maintain, repair, and replace, if necessary, the low-voltage, standard central smoke detection system required hereby.

907.3.13.8 Maintenance and testing

The owner or authorized agent of the owner shall also be responsible for the continuous maintenance of such system through no less than an annual inspection and testing thereof performed under a written maintenance agreement with a reliable firm actively engaged in the servicing of such systems. A copy of each maintenance agreement shall be accompanied by a written report and a copy of such report shall be promptly delivered to the Countryside Fire Protection District. Further, the current maintenance agreement and latest report shall be made available at all reasonable times for inspection by duly authorized personnel of the Countryside Fire Protection District Bureau of Fire Prevention.

907.3.13.9 Power source for existing multifamily buildings

Smoke alarms are not required to be equipped with battery backup where they are connected to an emergency electrical system.

907.3.13.10 Heat detection device

Where a heat detection device or combination heat and smoke detection device will be more effective than a smoke detector as a result of conditions within the area in which the device is located, the heat detection device or combination heat and smoke detection device shall be installed in place of a smoke detector at the direction of the Code Official. The combination heat and smoke detection device shall bear the testing label of a nationally recognized, independent testing laboratory and shall meet the requirements of NFPA 72.

907.3 Fire Safety functions

907.3.1

Delete this section and insert the following:

Duct Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is required by Section 907.2. Activation of a duct smoke detector shall initiate an approved signal and shall perform the intended fire safety function in accordance with this code and the International Mechanical Code. Duct smoke detectors shall not be used as a substitute for required open area detection. Duct detectors shall be installed inside the building in a temperature controlled environment.

907.4.2 Manual fire alarm boxes

Add the following wording to this section:

Manual fire alarm boxes shall be installed in each Use Group described in this Code; they shall be installed in accordance with Sections 907.2.1 through 907.4.2.5.

Exception: Manual fire alarm boxes shall not be required in Group E occupancies where the building is equipped throughout with an approved automatic sprinkler system, the notification appliances will activate on sprinkler water flow and manual activation is provided from a normally occupied location.

907.5.2.1 Audible alarms

Delete this section and insert the following:

Audible alarm notification appliances shall be provided and sound a distinctive sound that is not used to be used for any purpose other than that of a fire alarm. The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or five dBA above the maximum sound level having duration of at least 60 seconds, whichever is greater, in every space within the building. The minimum sound pressure levels shall be: 70 dBA in occupancies in group R and I-1; 90 dBA in mechanical equipment rooms; and 60 dBA in other occupancies. The maximum sound pressure level for audible alarm notification appliances shall be 120 dBA at the minimum hearing distance from the audible appliance. Where the average ambient noise is greater than 105 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72 and audio alarm appliances shall not be required.

Exception: Visible alarm notification appliances shall be allowed in lieu of audible alarm notification appliances in critical care areas of group I-2.

907.5.2.3 Visible alarms

Delete this section and insert the following:

Visible alarm notification appliances shall be provided in accordance with sections 907.5.2.3.1 through 907.5.2.3.4.

907.5.2.3.5 Visible Alarms - Multi-tenant Use Group M, F and S buildings

Add as an additional section:

Multi-tenant Use Group M, F and S buildings will be "ring by tenant" activated by a fire sprinkler system flow switch for that space or automatic fire detection and shall include a weatherproof clear outside strobe over the entrance to each tenant space as directed by the fire code official. All outside strobes shall be 75 candela minimum.

907.5.2.6 Separate zones

Add as an additional section:

Manual fire alarm boxes, audio/visual devices and detectors are to be on separate zones per floor unless approved otherwise by the fire code official.

907.6.5 Monitoring

Delete this section and insert the following:

All required fire protective signaling systems located within the Countryside Fire Protection District shall transmit alarm, supervisory, and trouble signals directly to the Countryside Fire Protection District main dispatch Communication Center via a two-way radio transmitter. Future methods of connection shall be determined by the Chief.

Exceptions:

1. Single- and multi-station smoke detectors are required by Section 907.2.11.
2. Smoke detectors in buildings of Use Group I-3 occupancies.
3. Automatic sprinkler systems in one- and two-family dwellings.

Add the following sections:

907.10 False fire alarm activation

False fire alarm: Any alarm signal which indicates the existence of an emergency situation, when in fact no such emergency exists, and shall include any alarm signal generated by any fire protection system by whatever means, but shall not include alarms from the following causes:

1. Fire which causes structural damage to the protected premises.
2. Earthquake causing structural damage to the protected premises.
3. Tornado winds causing structural damage to the protected premises.
4. Flooding to the protected premises due to overflow of natural drainage.
5. Lightning causing physical damage to the protected premises.
6. Telephone line malfunction verified in writing by an authorized telephone company supervisor within seven calendar days of the occurrence.

7. Electrical service interruption verified in writing by an authorized local power company supervisor within seven calendar days of the occurrence.

907.10.1 False fire alarm service charge

For false fire alarms, an alarm user shall be charged a service charge of \$100.00 for each false alarm in excess of three (3) in any calendar year. All false fire alarm service charges shall be remitted to the Countryside Fire Protection District by the alarm user upon receipt of the statement for such service charge.

907.10.2 Newly installed fire alarm allowance

Special consideration will be given to fire alarm users should false fire alarms occur during the first three months after the user's alarm service was commenced.

907.10.3 Local government allowance

Units of local government such as schools and park districts may receive special consideration for alarms caused by circumstances listed in Section 907.10.

907.10.4 Liability

The Countryside Fire Protection District assumes no liability for:

1. Any defects in the operation of an alarm system.
2. Any failure or neglect to respond appropriately upon receipt of an alarm.
3. Any failure or neglect of any person in connection with the installation, operation, or maintenance of any alarm system.
4. The transmission of alarm signals, prerecorded alarm messages, or the relaying of such signals and messages.

907.10.5 Intentional false alarms

No person shall intentionally turn in a fire alarm when, in fact, such person knows that no fire exists. No person shall activate any fire alarm system or any fire suppression system for purposes other than emergency, maintenance, or prescribed testing.

907.10.6 Penalties

Any person who violates any of the provisions of section 907.10 shall be subject to a fine of not more than \$500.00 for each violation. Such fines shall be in addition to any other fee or charge authorized pursuant to the terms of the ordinance codified in this chapter.

SECTION 912 FIRE DEPARTMENT CONNECTIONS

912.7

Add as an additional section:

All fire department connections shall be a 2 ½" X 2 ½" Siamese NST connection.

CHAPTER 10 **MEANS OF EGRESS**

SECTION 1005 EGRESS WIDTH

1006.6.3 Illumination emergency power

Add new paragraph No.6:

6. All rooms containing the building fire sprinkler riser(s), fire pump(s) and fire alarm control panel(s) shall be provided with approved emergency lighting.

CHAPTER 56 EXPLOSIVES AND FIREWORKS

SECTION 3302 - DEFINITIONS

Add wording to the Fireworks definition section:

The following words and terms shall, for the purpose of this Chapter and as stated elsewhere in this Code, have the meanings shown herein.

Fireworks: The term "fireworks" shall mean and include any explosive composition, or any substance or combination of substances, or article prepared for the purpose of producing a visible or audible effect of a temporary exhibitional nature by explosion, combustion, deflagration or detonation, and shall include blank cartridges, toy cannons, in which explosives are used, the type of balloons which require fire underneath to propel the same, firecrackers, torpedoes, sky-rockets, Roman candles, bombs, or other fireworks of like construction and any fireworks containing any explosive compound, or any tablets or other device containing any explosive substance, or containing combustible substances producing visual effects, provided, however, that the term "fireworks" shall not include trick noise makers known as "party poppers", "booby traps", and "snappers"; toy pistols, toy canes, toy guns, or other devices in which paper or plastic caps containing twenty-five hundredths of grains or less of explosive compound are used, providing they are so constructed that the hand cannot come in contact with the cap when in place for the explosion; and toy pistol paper or plastic caps which contain less than twenty hundredths grains of explosive mixture.

Note: Devices such as sparklers, snake or glow worm pellets, trick matches, etc. that require an open flame, such as a match or lighter, to ignite are not permitted.

SECTION 3304 - EXPLOSIVE MATERIALS STORAGE AND HANDLING

Delete this section and insert the following:

3304.1 – Explosive materials storage and handling

The storage of explosive materials is prohibited within the Countryside Fire Protection District.

Delete sections 3304.2 through 3304.10.7

SECTION 3305 – MANUFACTURE, ASSEMBLY AND TESTING OF EXPLOSIVES, EXPLOSIVE MATERIALS AND FIREWORKS

3305.1 General

Delete this section and insert the following:

The manufacturing, assembly and testing of explosives, ammunition, blasting agents and fireworks is prohibited in the Countryside Fire Protection District.

Delete sections 3305.2 through 3305.9

SECTION 3308 - FIREWORKS DISPLAY

3308.2 Permit application

Delete this section and insert the following:

A permit shall be required for the possession, display or discharge of fireworks or pyrotechnical displays. The permit application shall include the applicant's name, address, and age; the date and place of the proposed discharge of fireworks or pyrotechnical display; the nature and quantities of fireworks to be discharged or displayed; and the applicant's experience, if any, in discharge of fireworks or pyrotechnical displays. Also included shall be plans for the display, inspections of the display site, and demonstrations of the display operation. Such permit shall be applied for a minimum of fifteen (15) days prior to the proposed date of display.

Upon receipt of the application, the Code Official, or designee, shall inspect the location of the proposed discharge of fireworks or pyrotechnical display. If, in the judgment of the Code Official, or designee it would not be hazardous to any property or persons to allow such discharge of fireworks or pyrotechnical displays, given the resources of the Fire Department available for the requested date, the Code Official shall approve the application and issue a permit for the discharge of fireworks or pyrotechnical display. Fees in accordance with Section 105.8 shall apply.

A representative of the Countryside Fire Protection District shall standby on site from the time fireworks product arrives on site through the post display final safety check. In addition, a fire engine with a crew of two (2) firefighters will be required for standby at the display. Standby personnel shall be reimbursed at a rate of \$75.00 per hour. The fire engine standby personnel will be reimbursed a minimum of two (2) hours. Payment is due at the time the permit is issued.

A permit granted hereunder shall not be transferable, nor shall any such permit be extended beyond the dates set out therein.

Add as additional section:

SECTION 3310 – FIREWORKS VIOLATIONS

3310.1 General

A person shall not possess, manufacture, store, offer or expose for sale, sell at retail or discharge any fireworks within the Countryside Fire Protection District.

Exception: Where approved for the supervised display of fireworks in accordance with Section 3308 of this Code.

3310.2 Bond for display

The permit holder shall furnish a bond in an amount approved by the code official for the payment of all potential damage caused either to the person or property due to the permitted display, and arising from any acts of the permit holder or agent of the permit holder. In lieu of a bond, the permit holder may provide a certificate of insurance, in an amount acceptable to the Code Official as an additional insured and execute an agreement holding the Countryside Fire Protection District harmless from any damage to persons or property caused by the permitted display.

3310.3 Fines for violations

Any person, firm, partnership, association or corporation found violating any of the provisions of this chapter shall be fined not less than one hundred and fifty dollars (\$150.00), but not more than seven hundred and fifty dollars (\$750.00). All fines shall be paid to the Countryside Fire Protection District.

CHAPTER 80 REFERENCED STANDARDS

Delete International Plumbing Code and insert the Illinois State Plumbing Code

This change affects all references to the International Plumbing Code in the entire code.

NFPA

Change or add the standards with the edition listed.

NFPA 10 - 2018	NFPA 11 – 2016	NFPA 12 – 2015	NFPA 12A – 2015
NFPA 13 – 2016	NFPA 13D – 2016	NFPA 13R – 2016	NFPA 14 – 2016
NFPA 15 – 2017	NFPA 16 – 2015	NFPA 17 – 2017	NFPA 17A – 2017
NFPA 20 – 2016	NFPA 22 – 2018	NFPA 24 – 2016	NFPA 25 – 2017
NFPA 30 – 2018	NFPA 30A – 2018	NFPA 30B – 2015	NFPA 32 – 2016
NFPA 33 – 2016	NFPA 34 – 2015	NFPA 35 – 2016	NFPA 40 – 2016
NFPA 45 – 2015	NFPA 51 – 2018	NFPA 51A – 2018	NFPA 58 – 2017
NFPA 61 – 2017	NFPA 70 – 2017	NFPA 72 – 2016	NFPA 80 – 2016
NFPA 85 – 2015	NFPA 96 – 2017	NFPA 99 – 2018	NFPA 101 – 2018
NFPA 110 – 2016	NFPA 111 – 2013	NFPA 120 – 2015	NFPA 204 – 2015
NFPA 253 – 2015	NFPA 265 – 2015	NFPA 409 – 2016	NFPA 654 – 2017
NFPA 655 – 2017	NFPA 664 – 2017	NFPA 701 – 2015	NFPA 704 – 2017
NFPA 720 – 2015	NFPA 1123 – 2018	NFPA 1124 – 2017	NFPA 2001 – 2015

APPENDIX B

SECTION B103 MODIFICATIONS

Add as additional sections:

B 103.4 Dry hydrants

In any subdivision / development, where a water distribution system is not provided, the Countryside Fire Protection District may require the owner to modify storm water control devices, so as to provide a pond with a minimum depth of five (5) feet and to install a dry hydrant that conforms to the standard of NFPA 1142 and with the approval of the Code Official with a suction pipe from the middle of the pond. The dry hydrant shall be installed on the right of way of a street proposed to be installed within the subdivision/development and shall meet the standards established by the Countryside Fire Protection District. Where a pond is not practical, a tank system with adequate water storage capacity may be required. It shall be unlawful to erect any structure in any subdivision / development prior to completion of any required water supply equipment as required by this Ordinance.

B-103.4.1 Where the configuration of lots, distance between buildings and lot lines or public utility easements, accessibility to building or fire suppression requirements dictate, the Code Official shall require additional hydrants as deemed necessary.

B-103.4.2: The total gallons per minute, which dry hydrants shall be required to produce, shall be determined by the structure being served by the hydrant. In no case shall the hydrant produce less than 1,000 gallons per minute.

B-103.4.3: The precise location of and specifications for dry hydrant(s) shall be subject to the review and approval by the Code Official prior to the installation of the system.

B-103.4.4: The dry hydrant plan submitted for review may be subject to review by an outside engineer or code consultant. The submitted party will incur all associated costs.

B-103.4.5: It shall be unlawful for any person to utilize any device such as drafting pits, dry hydrants or other water supply appurtenances designed for fire fighting operations without the express permission of the Countryside Fire Protection District.

B-103.4.6: All dry hydrants shall be maintained free from obstructions. The access to any area surrounding the dry hydrant shall be properly cleared of obstacles, which may hide or impede the use of the dry hydrant. Furthermore, the hydrant shall be maintained in working order at all times, capable of delivering the minimum required flow. Responsibility of maintaining, repairing, replacing and / or dredging all hydrants within a subdivision shall be the responsibility of the appropriate homeowner's association. In the absence of a homeowners association, each dry hydrant will be addressed on an individual basis.

B-103.4.7: The Countryside Fire Protection District may require the property owner or his agent to install "No Parking – Fire Hydrant", or other signs as needed.

B-105.1: Delete the exception

B-105.2: Delete the exception

APPENDIX B

FIRE-FLOW REQUIREMENTS FOR BUILDINGS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance or legislation of the jurisdiction.

User note:

About this appendix: Appendix B provides a tool for the use of jurisdictions in establishing a policy for determining fire-flow requirements in accordance with Section 507.3. The determination of required fire flow is not an exact science, but having some level of information provides a consistent way of choosing the appropriate fire flow for buildings throughout a jurisdiction. The primary tool used in this appendix is a table that presents fire flow based on construction type and building area based on the correlation of the Insurance Services Office (ISO) method and the construction types used in the International Building Code®.

SECTION B101 GENERAL

B101.1 Scope. The procedure for determining fire-flow requirements for buildings or portions of buildings hereafter constructed shall be in accordance with this appendix. This appendix does not apply to structures other than buildings.

SECTION B102 DEFINITIONS

B102.1 Definitions. For the purpose of this appendix, certain terms are defined as follows:

FIRE FLOW. The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for fire fighting.

FIRE-FLOW CALCULATION AREA. The floor area, in square feet (m²), used to determine the required fire flow.

SECTION B103 MODIFICATIONS

B103.1 Decreases. The fire code official is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

B103.2 Increases. The fire code official is authorized to increase the fire-flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall be not more than twice that required for the building under consideration.

B103.3 Areas without water supply systems. For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the fire code official is authorized to utilize NFPA 1142 or the International Wildland-Urban Interface Code.

SECTION B104 FIRE-FLOW CALCULATION AREA

B104.1 General. The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified in Section B104.3.

B104.2 Area separation. Portions of buildings that are separated by fire walls without openings, constructed in accordance with the International Building Code, are allowed to be considered as separate fire-flow calculation areas.

B104.3 Type IA and Type IB construction. The fire-flow calculation area of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

Exception: Fire-flow calculation area for open parking garages shall be determined by the area of the largest floor.

SECTION B105 FIRE-FLOW REQUIREMENTS FOR BUILDINGS

B105.1 One- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. The minimum fire-flow and flow duration requirements for one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.1(1) and B105.1(2).

B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.2 and B105.1(2).

B105.3 Water supply for buildings equipped with an automatic sprinkler system. For buildings equipped with an approved automatic sprinkler system, the water supply shall be capable of providing the greater of:

1. The automatic sprinkler system demand, including hose stream allowance.
2. The required fire flow.

APPENDIX B

TABLE B105.1(1)
REQUIRED FIRE FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
0-3,600	No automatic sprinkler system	1,000	1
3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate
0-3,600	Section 903.3.1.3 of the <i>International Fire Code</i> or Section P2904 of the <i>International Residential Code</i>	500	1/2
3,601 and greater	Section 903.3.1.3 of the <i>International Fire Code</i> or Section P2904 of the <i>International Residential Code</i>	1/2 value in Table B105.1(2)	1

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/min.

TABLE B105.1(2)
REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute) ^a	FLOW DURATION (hours)
Type IA and IB ^a	Type IIA and IIA ^a	Type IV and V-A ^a	Type IB and IIB ^a	Type V-B ^a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	4
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
---	---	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
---	---	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
---	---	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
---	---	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
---	---	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
---	---	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
---	---	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
---	---	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/min, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the *International Building Code*.

b. Measured at 20 psi residual pressure.