

**ORDINANCE NO. 2023-0411**

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

**WHEREAS**, the Plainfield 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 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

**WHEREAS**, the pursuant to its statutory authority, the Board previously determined it to be in the best interest of the District to adopt a fire prevention code 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 are provided in Ordinance No. 16-1024B.

**WHEREAS**, the 2021 Edition of the ICC (International Code Council) 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 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 2021 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

**WHEREAS**, a copy of the 2021 International Fire Code has been on file with the District for thirty (30) days and has, during that time, been available for public use, inspection and examination.

**NOW THEREFORE**, be it ordained by the Board of Trustees of the Plainfield Fire Protection District, Will and Kendall Counties, 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 Plainfield Fire Protection District (hereinafter referred to as the "Fire Prevention Code") is hereby amended to delete and repeal the present language in its entirety.

**SECTION 3:** The Fire Prevention Code of the Plainfield Fire Protection District is hereby amended to be identical with the provisions of the publication marked and designated as the *International Fire Code*, 2021 edition, as published by the International Code Council. Each and all of the regulations, provision, penalties, conditions, and terms of the aforesaid document are hereby referred to, adopted, and made a part hereof, as if fully set out in this Ordinance, with the additions, insertions, deletions, and changes, if any, prescribed in **Exhibit A** of this Ordinance.

**SECTION 4:** 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 5:** That is shall be unlawful to design, construct, alter, enlarge, repair, demolish, remove, use, or maintain any building or structure within the boundaries of the Plainfield Fire Protection District in violation of any terms or provisions of this Ordinance.

**SECTION 6:** That Ordinance No. 21-0511 of the Plainfield Fire Protection District entitled An Ordinance Adopting Fire Prevention Codes for the Plainfield Fire Protection District and all other ordinances or parts of ordinances in conflict herewith are hereby repealed. 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 7:** All persons in violation of the Fire Prevention Code shall be subjected to fines as set forth and established in the Codes and all otherwise applicable Ordinances.

**SECTION 8:** 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 9:** 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 of such portion as may be declared invalid.

**SECTION 10:** 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 11:** 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 11 day of April, 2023, by the following roll call vote:

AYES: 5

NAYS: 0

ABSENT: 0

  
\_\_\_\_\_  
President, Board of Trustees  
Plainfield Fire Protection District

ATTEST:

  
\_\_\_\_\_  
Secretary, Board of Trustees  
Plainfield Fire Protection District

**EXHIBIT A**

**PLAINFIELD FIRE PROTECTION DISTRICT  
FIRE PREVENTION CODE**

**AMENDMENTS TO THE  
2021 EDITION OF THE INTERNATIONAL FIRE CODE**

## **CHAPTER 1 – ADMINISTRATION**

Section 101.1 is amended to insert the following:

### **Section 101.1:**

These regulations shall be known as the *Fire Code* of Plainfield Fire Protection District, hereinafter referred to as “this code.”

Section 104.9.1 Modifications is added to read as follows:

### **Section 104.9.1 Modifications:**

The Board of Trustees of the Plainfield 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 Board decides to grant a variance, it may place conditions thereon. The decision of the Board in either granting or denying the variance shall be in writing and entered in the records of the Plainfield Fire Protection District. A signed copy of the Board’s decision shall be furnished to the applicant.

Section 107.7 Fees is added to read as follows:

### **Section 107.7 Plan Review and Acceptance Test/Inspection Fees:**

Each applicant shall pay the following fee by the Plainfield Fire Protection District. No part of said fees shall be refundable. Plan review comment letters cannot be released and final occupancy cannot be issued until all fees are paid in full. Such costs and expenses shall include fees by consultants or outside contractors or time spent by Plainfield Fire Protection District staff. To the extent that the District needs to utilize the services of an outside agency/consultant, the applicant shall pay all fees charged by the outside agency/consultant.

#### ***Site/Utility Plan***

\$200.00 for the first four hours than \$50.00 an hour for each additional hour.

#### ***Fire Sprinkler Systems***

New fire sprinkler system installation - \$200.00 plus \$0.50 for every sprinkler head exceeding 100.

New fire sprinkler system acceptance test - \$150.00 per hydrostatic/acceptance test and inspection.

New underground flush acceptance inspection - \$150.00 per test.

Existing underground flush acceptance inspection - \$75.00 per test.

Existing fire sprinkler system modification or new installation of 20 fire sprinkler heads or less - \$100.00.

Existing fire sprinkler system modification or new installation of 20 fire sprinkler heads or less acceptance test/inspection - \$75.00 per hydrostatic/acceptance test and inspection.

New fire pump acceptance test/inspection - \$250.00 per test.

Existing fire pump test/inspection - \$125.00 per test.

### ***Automatic Fire Extinguishing Systems***

All automatic fire extinguishing systems - \$200.00

New automatic fire extinguishing system acceptance test/inspection - \$150.00 per test.

Existing automatic fire extinguishing system acceptance test/inspection - \$75.00 per test.

### ***Fire Alarm Systems***

New Construction or remodels greater than 15,000 square feet - \$200.00

New construction fire alarm system acceptance test/inspection - \$150.00 per test.

Tenant finish/build-out or remodel 15,000 square feet or less - \$150.00

Tenant finish/build-out or remodel or existing fire alarm system acceptance test/inspection – \$75.00 per test.

### ***Life Safety Review***

New construction or large scale remodels greater than 15,000 square feet - \$250.00 for the first four hours than \$50.00 an hour for each additional hour.

Small scale tenant finish or remodel 15,000 square feet or less - \$100.00

Special event inspection - \$200.00 per event.

Fireworks inspection and monitoring - \$200.00 per event.

### ***Section 111.5 is added to read as follows:***

#### **111.5 Board of Appeals:**

In order to hear and decide appeals of orders, decisions or determinations made by the *fire code official* relative to the application and interpretation of this code, the person affected may appeal the decision of the *fire code official* to the Fire

Chief of the Plainfield Fire Protection District by written notice filed in the Plainfield Fire Protection District Chief's office within ten (10) days from the date of the decision being appealed with the Board of Appeals. The Chief shall call a hearing on said appeal within sixty (60) days of said notice of appeal filing, and shall render a decision within ten (10) days after completing such hearings.

Section 112.4 Violation Penalties is amended to insert the following:

**Section 112.4 Violation Penalties:**

Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the *approved construction documents* or directive of the *fire code official*, or of a permit or certificate used under provisions of this code, shall be guilty of a violation of this article, punishable by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment not exceeding 7 days, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section 112.4.2 Violation Penalties is added to read as follows:

**Section 112.4.2 Reinspection Fees:**

Reinspections will be conducted by a fire code official upon notification that the corrections have been completed or at the time specified for a reinspection. The fire code official will reinspect violations for corrections twice. If more reinspections are required, the reinspection fees will be as follows:

3 <sup>rd</sup> reinspection	\$100.00
4 <sup>th</sup> reinspection	\$150.00
5 <sup>th</sup> reinspection	\$200.00
6 or more reinspections	\$250.00 each

Section 113.4 Failure to Comply is amended to insert the following:

**Section 113.4 Failure to Comply:**

Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to a fine of not less than one hundred dollars (\$100.00) or more than one thousand dollars (\$1,000.00).



## **CHAPTER 5 – FIRE SERVICE FEATURES**

### **CHAPTER 5 – Section 505 PREMISES IDENTIFICATION**

*Section 505.1 is amended to read as follows:*

#### **Section 505.1: Address Identification**

Exterior doors, exits, and overhead doors shall be labeled on the exterior of the door in accordance with the Plainfield Fire District Exterior Door Marking Policy present in **Exhibit B**.

### **CHAPTER 5 – Section 506 KEY BOXES**

*Section 506.1 Location is amended to read as follows:*

#### **Section 506.1: Where Required**

The placement of Key boxes shall be coordinated with the local fire official. When the building's footprint (size of building at grade level) exceeds 100,000 square feet or when required by the local fire official, a key box shall be provided in all of the following locations:

1. Fire Sprinkler and/or Fire Pump Rooms with exterior access
2. Rooms containing the Fire Alarm Control Panel with exterior access
3. Primary Entrance
4. Adjacent to door most remote to the Primary Entrance and other key boxes

### **CHAPTER 5 – Section 507 FIRE PROTECTION WATER SUPPLIES**

*Section 507.5.1 is amended to read as follows:*

#### **Section 507.5.1 Where Required:**

Hydrants in areas zoned for one- or two-family dwellings shall be spaced no more than 350 feet apart. Hydrants in areas zoned multi-family, commercial, industrial, or mixed occupancy shall be spaced no farther than 300 feet apart. Spacing shall be measured as normal roadway travel between hydrants on an adjacent, all weather, public road. All hydrants shall be located within sixteen (16) feet of the paved portion of an all-weather public roadway with a minimum setback from curbs or edges of pavement. Variances may be required at the discretion of the Board of Trustees. No hydrant should be located closer than fifty (50) feet from any existing or anticipated exposing structure in commercial and manufacturing areas. Exceptions 1 and 2 are deleted.

Section 507.5.1.2 is added to read as follows:

**Section 507.5.1.2:**

Additional fire hydrants shall be located within 75 to 100 feet of any Fire Department Connection (FDC).

Section 507.5.1.3 is added to read as follows:

**Section 507.5.1.3:**

Hydrants shall be of the type adopted by the municipality as standard or an equal acceptable to the Plainfield Fire Protection District and the municipality.

Hydrants shall have two 2-½ inch hose connections and one 4-½ inch steamer connection. Hydrants shall be installed with the top of the hydrant no more than 4 feet above finished grade. The center of the lowest outlet shall be not less than 18 inches above finished grade.

## **CHAPTER 5 – Section 510 EMERGENCY RESPONDER COMMUNICATION COVERAGE**

Section 510.1.4 is added to read as follows:

**Section 510.1.4. Preliminary Survey:**

For buildings over 100,000 square feet a preliminary survey of Emergency Responder Communication signal levels shall be conducted prior to enclosure of the structure. The report and a design intent shall be submitted for review to the local fire official.

Section 510.5.4.9 is added to read as follows

**Section 510.5.4.9 Witnessing of Testing:**

Emergency Responder Communication System initial acceptance testing shall be witnessed by the local fire official unless otherwise approved.

Section 510.5.4.9 is added to read as follows

**Section 510.5.4.9 Witnessing of Testing:**

Emergency Responder Communication System testing shall be conducted annually or whenever there has been a significant change to the building. All testing shall be witnessed by the local fire official unless otherwise approved.

Section 510.5.4.9 is added to read as follows

**Section 510.4.2.2 is added to read as follows:**

Testing criteria will include a quantitative coverage test based on bit error rate of less than 3% and an RSSI signal strength testing of -95db or better. This includes the passing of a DAQ test as well. All quantitative, signal strength, and DAQ testing will be witnessed by the local fire official unless otherwise approved.

## **CHAPTER 6 – BUILDING SERVICES AND SYSTEMS**

*Section 604.8 is added to read as follows:*

### **Section 604.8 Elevator car requirements:**

Elevator cars are to accommodate the ambulance stretcher. In 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 a minimum 5' x 7' platform and minimum 2500 lb capacity with a 42" side slide door.

## **CHAPTER 9 – FIRE PROTECTION SYSTEMS**

### **SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS**

*Section 903.2.1.1 Group A-1 Item Number 1 is amended to state:*

#### **903.2.1.1 Group A-1 Item Number 1:**

The *fire area* exceeds 2,000 square feet.

*Section 903.2.1.2 Group A-2 Item Number 1 is amended to state:*

#### **903.2.1.2 Group A-2 Item Number 1:**

The *fire area* exceeds 2,000 square feet.

*Section 903.2.1.3 Group A-3 Item Number 1 is amended to state:*

#### **903.2.1.3 Group A-3 Item Number 1:**

The *fire area* exceeds 2,000 square feet.

*Section 903.2.1.4 Group A-4 Item Number 1 is amended to state:*

#### **903.2.1.4 Group A-4 Item Number 1:**

The *fire area* exceeds 2,000 square feet.

*Section 903.2.13 is added to read as follows*

#### **903.2.13 Vanilla Box Warehouse.**

Buildings that contain Storage Occupancies with an unknown use (a shell building being built with an unknown tenant) and equipped with a fire sprinkler system shall be designed to accommodate the storage of high piled Group A plastics.

Section 903.2.3 Group E Item Number 1 is amended to state:

**903.2.3 Group E Item Number 1:**

The fire area exceeds 2,000 square feet.

Section 903.2.4 Group F-1 Item Number 1 is amended to state:

**903.2.4 Group F-1 Item Number 1:**

The fire area exceeds 2,000 square feet.

Section 903.2.4 Group F-1 Item Number 3 is amended to state:

**903.2.4 Group F-1 Item Number 3:**

Where the combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 2,000 square feet.

Section 903.2.4.1 is amended to state:

**Section 903.2.4.1 Woodworking Operations:**

An automatic sprinkler system shall be provided throughout all Group F-1 occupancy fire areas that contain woodworking operations in excess of 2,000 square feet in area that generate finely divided combustible waste or use finely divided combustible materials.

Section 903.2.4.3 is amended to state:

**Section 903.2.4.3 Upholstered Furniture or Mattresses:**

An automatic sprinkler system shall be provided throughout a Group F-1 fire area that exceeds 2,000 square feet used for the manufacture of upholstered furniture or mattresses.

Section 903.2.4.4 Group F-2 is added to read as follows:

**903.2.4.4 Group F-2:**

An automatic sprinkler system shall be provided in all Group F-2 occupancies where the fire area exceeds 2,000 square feet or the fire area is located more than three stories above grade.

Section 903.2.7 Group M Item Number 1 is amended to state:

**903.2.7 Group M Item Number 1:**

The fire area exceeds 2,000 square feet.

Section 903.2.6 Group M Item Number 3 is amended to state:

**903.2.7 Group M Item Number 3:**

The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 2,000 square feet.

Section 903.2.7.2 Group M Upholstered Furniture or Mattresses is amended to state:

An automatic sprinkler system shall be provided throughout a Group M fire area where the area used for the display and sale of upholstered furniture or mattresses exceeds 2,000 square feet.

Section 903.2.9 Group S-1 Item Number 1 is amended to state:

**903.2.9 Group S-1 Item Number 1:**

The Group S-1 fire area exceeds 2,000 square feet.

Section 903.2.9 Group S-1 Item Number 3 is amended to state:

**903.2.9 Group S-1 Item Number 3:**

The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 2,000 square feet.

Section 903.2.9 Group S-1 Item Number 4 is amended to state:

**903.2.9 Group S-1 Item Number 4:**

A Group S-1 fire area used for the storage of commercial motor vehicles where the fire area exceeds 2,000 square feet.

Section 903.2.9.1 Item Number 1 is amended to state:

**903.2.9.1 Repair Garages Item Number 1:**

Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 2,000 square feet.

Section 903.2.9.1 Item Number 2 is amended to state:

**903.2.9.1 Repair Garages Item Number 2:**

Buildings not more than one story above grade plane, with a fire area containing a repair garage exceeding 2,000 square feet.

Section 903.2.9.1 Item Number 4 is amended to state:

**903.2.9.1 Repair Garages Item Number 4:**

A Group S-1 fire area used for the repair of commercial motor vehicles where the fire area exceeds 2,000 square feet.

903.2.9.4 Group S-1 Upholstered Furniture and Mattresses is amended to state:

An automatic sprinkler system shall be provided throughout a Group S-1 fire area where the area used for the storage of upholstered furniture or mattresses exceeds 2,000 square feet.

Section 903.2.10 Group S-2 Parking Garages Item Number 1 is amended to read as follows:

**903.2.10 Group S-2 Parking Garages Item Number 1:**

Where the fire area of the enclosed parking garage, in accordance with Section 406.6 of the *International Building Code*, exceeds 2,000 square feet.

Section 903.2.10 Group S-2 Parking Garages Item Number 3 is amended to read as follows:

**Section 903.2.10 Group S-2 Parking Garages Item Number 3:**

Where the *fire area* of the open parking garage, in accordance with Section 406.5 of the *International Building Code*, exceeds 2,000 square feet.

Section 903.2.10.1 Commercial Parking Garages is amended to read as follows:

**Section 903.2.10.1 Commercial Parking Garages:**

An *automatic sprinkler system* shall be provided throughout buildings used for storage of commercial motor vehicles where the *fire area* exceeds 2,000 square feet.

Section 903.2.11.7 Group B is added to read as follows:

**Section 903.2.11.7 Group B:**

An automatic sprinkler system shall be provided throughout buildings used for Group B where the fire area exceeds 2,000 square feet.

Section 903.3.1.2.3 is amended to read as follows:

**Section 903.3.1.2.3 Item Number 3 is amended as follows:**

Where located in a building of Type III or Type IV construction designed in accordance with Section 510.2 or 510.4 of the *International Building Code*, attics not required by Item 1 to have sprinklers shall comply with one of the following if the roof assembly is located more than three stories in height from the lowest level of fire department vehicle access needed to meet the provisions in Section 503:

- 3.1. Provide *automatic sprinkler system* protection.
- 3.2. Construct the attic using noncombustible materials.
- 3.3. Construct the attic using fire-retardant-treated wood complying with Section 2303.2 of the *International Building Code*.
- 3.4. Fill the attic with noncombustible insulation.

The height of the roof assembly shall be determined by measuring the distance from the lowest required fire vehicle access road surface adjacent to the building to the eave of the highest pitched roof, the intersection of the highest roof to the exterior wall, or the top of the highest parapet, whichever yields the greatest distance. For the purpose of this measurement, required fire vehicle access roads shall include only those roads that are necessary for compliance with Section 503.

**Section 903.3.1.2.3 Item Number 3.5 is added to read as follows:**

Sprinkler protection shall be provided for attics where the building is of Type V construction.

**Section 903.3.1.2.3 Item Number 4.6 is added to read as follows:**

Sprinkler protection shall be provided for attics where the building is of Type V construction.

Section 903.3.1.2 Item Number 4 is added to read as follows:

**Section 903.3.1.2 Item Number 4:**

In the downtown Plainfield area zoned as the "Business Transition District," (BTD) residential structures that are required to install fire sprinkler protection due to a change to commercial use or a commercial use renovation in accordance with Section 903.6.1 shall be allowed to install an NFPA 13R sprinkler system to meet the fire sprinkler requirement.

## **SECTION 905- STANDPIPE SYSTEMS**

Section 905.3.1 is to read as follows:

Class I standpipe systems shall be installed throughout new constructed buildings two (2) stories in height or more above or below the level of the fire district vehicle access.

Section 905.3.9 is to read as follows:

**Storage and Factory Occupancies.** In Storage and Factory occupancies whose total area exceed 50,000 square feet, shall be provided with a Class I standpipe system.

Section 905.12 is to read as follows:

**Standpipe Identification.** Standpipe hose valves shall be marked and identified except hose valves located on the exterior wall in accordance with the Plainfield Fire District Standpipe Marking and Identification Policy present in **Exhibit B**.

## **SECTION 906- PORTABLE FIRE EXTINGUISHERS**

Section 906.11 is added to read as follows:

**Fire Extinguisher Identification.** Fire extinguishers shall be marked and identified in accordance with the Plainfield Fire District Fire Extinguisher Marking and Identification Policy present in **Exhibit B**.

## SECTION 907- FIRE ALARM AND DETECTION SYSTEMS

Section 907.2.1 Group A is amended to read as follows:

### **Section 907.2.1 Group A:**

An automatic and manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in accordance with NFPA 72 and NFPA 70 in all Group A occupancies.

Section 907.2.2 Group B is amended to read as follows:

### **907.2.2 Group B:**

An automatic and manual fire alarm system shall be installed in accordance with NFPA 72 and NFPA 70 in all Group B occupancies.

Section 907.2.4 Group F is amended to read as follows:

### **907.2.4 Group F:**

An automatic and manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in accordance with NFPA 72 and NFPA 70 in all Group F occupancies.

Section 907.2.5 Group H is amended to read as follows:

### **907.2.5 Group H:**

An automatic and manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in accordance with NFPA 72 and NFPA 70 in all Group H occupancies and in occupancies used for the manufacture of organic coatings. An automatic smoke detection system shall be installed for highly toxic gases, organic peroxides and oxidizers in accordance with Chapters 60, 62 and 63 respectively.

Section 907.2.7 Group M is amended to read as follows:

### **907.2.7 Group M:**

An automatic and manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in accordance with NFPA 72 and NFPA 70 in all Group M occupancies.

Section 907.2.8 Group R-1 is amended to read as follows:

### **907.2.8 Group R-1:**

An automatic and manual fire alarm system shall be installed in accordance with NFPA 72 and NFPA 70 in all Group R-1 occupancies.

Section 907.2.9 Group R-2 is amended to read as follows:

### **907.2.9 Group R-2:**

An automatic and manual fire alarm system shall be installed in accordance with NFPA 72 and NFPA 70 in all Group R-2 occupancies.



Section 907.2.10 Group S is amended to read as follows:

**907.2.10 Group S:**

An automatic and manual fire alarm system shall be installed in accordance with NFPA 72 and NFPA 70 in all Group S occupancies.

Section 907.2.24 is amended to read as follows:

**Attic Heat Detection.** Multi-story buildings (two stories or less) with combustible construction attics that do not require a fire sprinkler system in the attic space shall be provided with automatic heat detection via linear heat detection, spot detection, or other commercially listed fire detection equipment as approved by the local fire official.

## **Section 912 FIRE DEPARTMENT CONNECTIONS**

Section 912.8 Fire Department Connections is added to read as follows:

**Section 912.8 Fire Department Connections:**

The fire department connection shall be a five-inch storz with a 30-degree elbow. A fire hydrant shall be located within 75 to 100 feet of the fire department connection.

Section 1103.5.3 Group I-2, Condition 2 is amended to read as follows:

**Section 1103.5.3 Group I-2, Condition 2:**

In addition to the requirements of Section 1103.5.2, existing buildings of Group I-2, Condition 2 occupancy shall be equipped throughout with an *approved automatic sprinkler system* in accordance with Section 903.3.1.1. The *automatic sprinkler system* shall be installed as established by the adopting ordinance of December 31, 2022.

Section 1103.5.6 Sprinkler Systems is added to read as follows:

**Section 1103.5.6 Sprinkler Systems:**

Existing buildings or structures that have more than 50% of the fire area remodeled/rehabbed, or have a change in use, shall provide fire sprinkler protection as required by other Sections of this Ordinance and the Fire Code. Remodeling conducted in stages or phases will be considered one overall project for the determination of 50%.

Section 1103.7.8 Fire Alarm Systems is added to read as follows:

**Section 1103.5.6 Fire Alarm Systems:**

Existing buildings or structures that have more than 50% of the fire area remodeled/rehabbed, or have a change in use, shall provide a fire alarm system as required by other Sections of this Ordinance and the Fire Code. Remodeling conducted in stages or phases will be considered one overall project for the determination of 50%.

### **315.8 Storage of lithium metal or lithium-ion Batteries.**

Areas associated with the collection or storage of lithium metal or lithium-ion batteries shall comply with this chapter.

**Exceptions:** The following areas shall be exempt from the requirements of this chapter:

1. Areas within a facility that are operated in accordance with procedures that provide for the state of charge of the lithium metal or lithium-ion batteries to be 30 (40) percent or less. Procedures and test reports documenting how the 30 (40) percent or less state of charge is established and how fire protection levels are determined shall be provided to the fire code official for review and approval
2. Areas where fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the batteries in storage will be limited to the design area of an automatic sprinkler system installed in accordance with NFPA 13 and will not adversely impact occupant egress from the building or adversely impact adjacent stored materials or the building structure.
3. Batteries in original retail packaging that are rated at 300 watt-hours or less for lithium-ion batteries or contain 25 grams or less of lithium metal for lithium metal batteries.

**315.8.1 Collection.** All areas located indoors in any occupancy where used lithium metal or lithium-ion batteries are collected from employees or the public shall be provided with open-top noncombustible containers or containers designed to preclude the release of contents resulting from battery thermal runaway or containers approved for battery collection activities.

1. Containers shall not exceed 1 ft<sup>3</sup> (0.03 m<sup>3</sup>) in size. (Or 55 gallons (113.6 L))
2. Containers shall have a minimum of 3 ft (0.9 m) of open space from other battery collection containers and combustible materials and shall be located a minimum of 5 ft (1.5 m) from exits from the room, space, or building.
3. Where combustible materials are located within the space between collection containers, the containers shall be spaced a minimum 10 ft (3 m) apart.

### **315.8.2 Collection and Storage Locations.**

Batteries collected or stored other than those in collection containers complying with Section 315.8.1 shall be stored in accordance with one or more of the following methods provided for in accordance with one or more of the following

methods. Battery terminals shall be protected either through battery design methods or a protective packaging method to prevent short circuit of the battery.

1. In rooms or spaces separated from the remainder of the building areas by fire barriers with a 3-hour fire resistance rating and with horizontal assemblies with a 3-hour fire resistance rating constructed in accordance with the local building code. The room or space shall be protected by a radiant energy detection system installed in accordance with NFPA 72 and shall be protected by an automatic sprinkler system designed and installed in accordance with NFPA 13.

2. Batteries shall be permitted to be stored in approved prefabricated portable buildings or containers that are constructed with 3-hour fire resistance ratings and provided with radiant-energy detection system installed in accordance with NFPA 72 and an approved automatic fire suppression system installed in accordance with NFPA 13.

3. In metal drums storage containers with batteries separated from each other by vermiculite or other approved material packaged to prevent damage that could lead to a thermal event or in containers approved for battery collection and storage activities.

- 3.1. Each area containing such metal drums or approved containers shall not exceed 900 ft<sup>2</sup> (83.61 m<sup>2</sup>) in area and shall be separated from other battery storage areas by a minimum of 10 ft (3 m).

- 3.2. The collection and storage area shall be protected by a radiant-energy detection system installed in accordance with NFPA 72 and an approved automatic fire suppression system installed in accordance with NFPA 13.

4. In containers approved for use in transportation or approved by the *fire code official* that will prevent an event from propagating beyond the container.

- 4.1. Each area containing the approved transportation containers shall not exceed 900 ft<sup>2</sup> (83.61 m<sup>2</sup>) in area and shall be separated from other battery storage areas by a minimum of 10 ft (3 m).

- 4.2. The storage area shall be protected by a radiant energy detection system installed in accordance with NFPA 72 and an approved automatic fire suppression system installed in accordance with NFPA 13.

**315.8.3 Prevention and Mitigation** A plan that provides for the prevention of fire incidents and includes early detection mitigation measures shall be provided to the *fire code official* for review and approval. The owner is required to file the plan annually.

**315.8.4 Explosion Control.**

The potential for a deflagration involving the off gassing of flammable gases during a thermal runaway shall be analyzed and explosion protection shall be installed in accordance with Section 911 if the potential exists. A written hazard analysis prepared by a fire protection engineer shall be submitted to the *fire code official* for review and approval.

**315.8.5 Outdoor Storage Location.**

Outdoor storage locations for lithium metal or lithium-ion batteries shall comply with the following:

1. Individual pile sizes shall be limited to 900 ft<sup>2</sup> (83.61 m<sup>2</sup>) in area separated from other piles by 10 ft (3 m).
2. Batteries shall be stored in non-combustible containers or approved containers designed for storage of the batteries.
3. Piles located outdoors shall be separated by a minimum 20 ft (6.1 m) from the following exposures:
  - 3.1. Lot lines
  - 3.2. Public ways
  - 3.3. Buildings
  - 3.4. Other storage
  - 3.5. Hazardous materials
  - 3.6. Other exposure hazards

**Exception:** Clearances shall be permitted to be reduced to 3 ft (0.9 m) when a 3-hour freestanding fire barrier, suitable for exterior use, and extending 15 ft (4.57 m) 5 ft (1.5m) above and extending 15 ft (4.57 m) 5 ft (1.5m) beyond the physical boundary of the pile is provided to protect the exposure.

**315.8.5.1 Weather Protection.**

Where weather protection is provided for sheltering outdoor battery storage areas, such areas shall be considered outdoor storage where the weather protection structure complies with 1 through 3.

1. Walls shall not obstruct more than one side of the structure.

**Exception:** Walls shall be permitted to obstruct portions of multiple sides of the structure, provided that the obstructed area is not greater than 25 percent of the structure's perimeter.

2. The distance from the structure to buildings, lot lines, public ways or means of egress to a public way shall be not less than the distance required for an outside hazardous material storage or use area without weather protection.
3. The overhead structure shall be of approved noncombustible construction with a maximum area of 1,600 square feet (148.6 m<sup>2</sup>).

#### **1207.6.6 Thermal Runaway Detection System.**

**1207.6.6.1 When required.** A thermal runaway detection system shall be provided for lithium-ion battery storage systems with an energy capacity greater than 20 kWh.

**1207.6.6.2 Approvals.** Devices designed to detect the thermal runaway of a lithium-ion cell containing a flammable or combustible liquid shall be listed in accordance with UL 2075, Gas and Vapor Detectors and Sensors.

**1207.6.6.3 Performance.** The thermal runaway detector shall activate upon detection of gas vapors produced by flammable or combustible liquid in a lithium-ion cell at the start of a thermal runaway event. Upon detection of a thermal runaway event the detection system shall shutdown the ESS rack releasing flammable or combustible gas vapors and transmit a fire alarm signal. Detection of a thermal runaway event shall activate the mechanical ventilation when it is provided as method of explosion control.

Thermal runaway detectors shall operate independently of the ESS Energy Storage Management System.

**1207.6.6.4 Annunciation.** The thermal runaway detector shall be capable of identifying the ESS rack where thermal runaway occurred.

Chapter 80:

Notwithstanding anything in Chapter 80 to the contrary, this Code hereby references the latest edition of all NFPA standards available on the adoption date of this Fire Code Ordinance

**EXHIBIT B**

**PLAINFIELD FIRE PROTECTION DISTRICT  
FIRE PREVENTION CODE**

**STANDPIPE, FIRE EXTINGUISHER, AND DOOR MARKING POLICIES**

## **PLAINFIELD FIRE PROTECTION DISTRICT STANDPIPE MARKING SYSTEM**

Standpipe hose valves in warehouses and factories exceeding 50,000 square feet shall be marked as follows.

- Freestanding vertical columns where a fire department standpipe connection runs shall bear a 8-10' red strip, visible from all sides of the column. The stripe's height shall not be less than 10' from the base of the column and floor but not obscure any column or aisle identifiers. The stripe shall be of a contrasting color to the vertical column for easy identification.
- In aisles where fire department connections are installed on columns within racking, the aisle endcaps shall have a sign installed indicating "Standpipe" or "Fire Department Connection". Signage is subject to Fire District approval.
- Connections shall not be obstructed by product or racking. Discharges shall be positioned no more than 90 degrees but not less than 45 degrees to the floor. Valves shall be positioned with a minimum of 4 inches of clearance to accommodate a firefighter's gloved hand.

## **PLAINFIELD FIRE PROTECTION DISTRICT FIRE EXTINGUISHER MARKING SYSTEM**

Fire Extinguishers in warehouses and factories exceeding 50,000 square feet shall be marked as follows.

- Free-standing vertical columns where a fire extinguisher is hung shall bear a 24" red stripe, visible from all sides of the column. The stripe's height shall not be less than 10' from the base of the column and floor. The stripe shall be of a contrasting color to the vertical column for easy identification.

## **PLAINFIELD FIRE PROTECTION DISTRICT DOOR MARKING SYSTEM**

Exterior man doors, exits, and overhead doors shall be labeled on the interior and exterior of the door with reflective material and a minimum of 6 inches in height. The door marking shall be on both sides of the doors and shall be positioned no less than 12" below the top of the door; centered. The main entrance door can use a 4-inch number.

- Mandoor/exitdoor labeling – Will begin with #1 starting at the front door and going clockwise around the building.
- Overhead door labeling – Will begin with #001 starting with the overhead door closest to the front door and going clockwise around the building.

