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BILL NO. 8-15-23-1

SUMMARY – An ordinance to amend Title 13, Chapter 13.04 of the Clark County Code relating to the installation of automatic fire sprinkler systems; amend 13.04.090 subsection 503.1.1, amend 13.04.115 subsection 903.2, delete 13.04.330 section 22.38 of NFPA 13, delete 13.04.340 section 8.4 of NFPA 13D and add new section 8.4, amend 13.04.340 subsection 10.2.1.1, amend 13.04.340 subsection 10.4.3.1, delete 13.04.350 section 7.5 of NFPA 13R, amend 13.04.520 subsection D105.2 and providing for other matters properly related thereto.

ORDINANCE NO. _____
(of Clark County, Nevada)

AN ORDINANCE TO AMEND TITLE 13, CHAPTER 13.04 OF THE CLARK COUNTY CODE, RELATING TO THE INSTALLATION OF AUTOMATIC SPRINKLERS SYSTEMS; AMEND 13.04.090 SUBSECTION 503.1.1; AMEND 13.04.115 SUBSECTION 903.2; DELETE 13.04.330 SECTION 22.38 OF NFPA 13; DELETE 13.04.340 SECTION 8.4 OF NFPA 13D AND ADD NEW SECTION 8.4; AMEND 13.04.340 SUBSECTION 10.2.1.1; AMEND 13.04.340 SUBSECTION 10.4.3.1; DELETE 13.04.350 SECTION 7.5 OF NFPA 13R; AMEND 13.04.520 SUBSECTION D105.2 AND PROVIDING FOR OTHER MATTERS PROPERLY RELATED THERETO.

THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF CLARK, STATE OF NEVADA, DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Title 13, Chapter 13.04 of the Clark County Code is amended and adopted to read as follows:

13.04.090 – Fire service features. A subsection designated “503.1.1 Buildings and facilities” is hereby amended as follows:

503.1.1 Buildings and facilities.

Exceptions.

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1.2 Where the building is protected with an approved upgraded automatic sprinkler system in accordance with the minimum requirements for the upgraded sprinkler system design, the fire apparatus roads shall extend to within 350 feet (106,680 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building. For the purposes of this section, an upgraded sprinkler system shall be in accordance with the following table:

1.2 Table (effective October 1, 2023)

Minimum Code-Required System	Upgraded System for 350 feet from fire apparatus lanes
NFPA 13D	NFPA 13R <u>See NFPA 13D Section 8.4</u>
NFPA 13R	NFPA 13, Light Hazard
NFPA 13, Light Hazard	NFPA 13, Ordinary Hazard Group 1, with quick-response sprinklers
NFPA 13, Ordinary Hazard Group 1	NFPA 13, Ordinary Hazard Group 2
NFPA 13, Ordinary Hazard Group 2	NFPA 13, Extra Hazard Group 1
NFPA 13, Extra Hazard Group 1	NFPA 13, Extra Hazard Group 2
NFPA 13, Extra Hazard Group 2	As approved by the <i>fire code official</i>

13.04.115 – Fire Protection Systems. A subsection, designated “903.2 Where required.” is amended to read as follows:

903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided throughout all buildings and structures, regardless, of occupancy type and including buildings and structures, in accordance with the International Residential Code, which meet one of the following requirements, and additionally in locations described in Section 903.2.1 through 903.2.12.

2. For buildings and structures constructed in accordance with the International Residential Code, approved automatic sprinklers systems are required. [~~where the living space exceeds 5,000 square feet (464 m²).~~]

13.04.330 - NFPA 13.

Section 22.38 of NFPA 13 titled “Protection Matrix for IBC Group R Division 3 Occupancies and buildings built under the IRC” is hereby deleted in its entirety.

13.04.340 – NFPA 13D.

Section 8.4 of NFPA 13D titled “Protection Matrix for Group R Division 3 Occupancies and buildings built under the IRC” is hereby deleted in its entirety.

Section 8.4 is hereby added to read as follows:

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8.4 Protection Matrix for Group R Division 3 Occupancies and buildings built under the IRC

Table 8.4

Protection Matrix for Group R Division 3 Occupancies and buildings built under the IRC⁴

<u>Fire Lane Distance per IFC 503.1.1</u>	<u>Building Area SIZE RANGE⁶</u>	<u>Mitigation Residential SYSTEM TYPE^{1,3}</u>	<u>SEPARATE SPRINKLER LEAD-IN REQUIRED⁵</u>	<u>MINIMUM UNDERGROUND PIPE SIZE⁵</u>	<u>MINIMUM WATER METER SIZE⁷</u>	<u>SPRINKLERS REQUIRED IN AREAS SUBJECT TO FREEZING</u>
<u><350 ft</u>	<u><10,000 sq. ft.</u>	<u>Enhanced NFPA 13D^{1,2}</u>	<u>No</u>	<u>1"</u>	<u>¾"</u>	<u>No</u>
	<u>>10,000 sq. ft.</u>	<u>Enhanced NFPA 13D 4 hd calculation^{1,2,8}</u>	<u>No</u>	<u>1.5"</u>	<u>1"</u>	<u>No</u>
<u>>350 ft</u>	<u>Any size</u>	<u>Enhanced NFPA 13D 4 hd calculation^{1,2,8}</u>	<u>No</u>	<u>1.5"</u>	<u>1"</u>	<u>No</u>

N/A I= Not Applicable

1. This mitigation constitutes a building “protected with an approved fire sprinkler system” per the IFC.
2. Domestic demand of 5 gpm is required to be added to the sprinkler demand in the hydraulic calculations.
3. Free-standing detached buildings with one or more sleeping rooms shall be protected by a minimum Enhanced NFPA 13D system.
4. Excluding Group Care Homes
5. U.G. lead-in shall be the minimum size required hydraulically as proven by the sprinkler contractor and shall be hydrostatically tested and flushed, witnessed by the fire department.
6. Building area is defined as all areas under roof except for porches patios balconies, carports and porte cocheres.
7. Water meters used for residential sprinkler systems shall be residential fire service meters or other meters approved by the water purveyor.
8. Enhanced 13D 4-head calculation design requires the hydraulic design area to include all sprinklers within a compartment, up to a maximum of four sprinklers.

8.4.2.1 Where required: When an Enhanced 13D design is required, sprinklers shall be installed throughout the structure except where omissions are permitted by the following:

1. Unheated attic spaces.
2. Floor/ceiling spaces.
3. Concealed combustibile spaces with no access for storage or living purposes.
4. Exterior overhangs, porches, and carports.
5. Showers, saunas, steam rooms or other areas that would necessitate the installation of corrosion proof heads.
6. Unconditioned spaces such as storage rooms or exterior accessible spaces that are subject to freezing.

Subsection 10.2.1.1 is hereby adopted to read as follows:

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10.2.1.1 Where the ceiling height exceeds the 24 feet limitation in Section 10.2.1, the count of fire sprinklers included in the hydraulic calculations as specified in Section 10.2.1 and mitigation matrix Section 8.4, shall be increased by 50%. Heads of pendant and upright orientation are required to have a minimum K-factor of 4.9, and heads of sidewall orientation are required to have a minimum K-factor of 4.2.

Subsection 10.4.3.1 is hereby adopted to read as follows:

10.4.3.1 System piping shall be designed to ensure the required system pressure is a minimum of ten (10) psi below the available supply pressure.

Exception: The pressure safety factor of Section 10.4.3.1 shall not be required where a water flow switch is incorporated into the supply riser assembly and connected to the Smoke Alarm circuit to activate all alarms upon waterflow. Waterflow switch selection, by means of both minimum rated flow and minimum retard time to alarm, shall ensure that false activation of smoke alarms due to toilet connection is avoided.

13.04.350 – NFPA 13R.

Section 7.5 “Protection Matrix for Group R Division 3 Occupancies” is hereby deleted in its entirety.

13.04.520 – Appendix D Civil Improvement Plans.

A subsection, designated “D105.2 Dead ends” is hereby amended to read as follows:

D105.2 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45,720 mm) in length shall be provided with approved provisions of the turning around of fire apparatus. Dead-end streets up to [~~500~~] 600 feet long, measured from the curb face of the intersecting street to the curb face of the dead-end (cul-de-sac, hammerhead), shall use the approved cul-de-sac dimensions provided in the Clark County Regional Transportation Commission (RTC) standard drawings RTC 212 or RTC 212.1.S.1 as follows. Dead-end streets in excess of [~~500~~] 600 feet must use one of the Clark County Fire Department approved fire apparatus turn around designs DFPB 1, 2, 3 or 4.

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SECTION 2. If any provision, section, paragraph, sentence, clause or phrase of this ordinance or portion thereof is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such holding shall not invalidate the remaining parts of this ordinance. It is the intent of the County Commission in adopting this ordinance that no portion or provision thereof shall become inoperative or fail by reason of any invalidity or unconstitutionality of any other portion or provision, and to this end all provisions of this ordinance are declared to be severable.

SECTION 3. All ordinances, parts of ordinances, chapters, sections, subsections, clauses, phrases, or sentences contained in the Clark County Code in conflict with this ordinance herewith are hereby repealed.

SECTION 4. This ordinance shall take effect and be in force on March 5, 2024 after the publication thereof by title only, together with the names of the County Commissioners voting for or against its passage, in a newspaper published in and having a general circulation in Clark County, Nevada at least once a week for a period of two (2) weeks.

PROPOSED on the 15th day of August, 2023

PROPOSED BY: Commissioner Tick Segerblom

PASSED on the _____ day of _____, 2023

AYES: _____

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NAYS:

ABSTAINING:

ABSENT:

BOARD OF COUNTY COMMISSIONERS
CLARK COUNTY, NEVADA

By:

JAMES B. GIBSON, Chair

ATTEST:

LYNN MARIE GOYA, County Clerk

This ordinance shall be in force and effect from and after the 5th day of March, 2024.