

## Title 13 FIRE AND FIRE PREVENTION

**Chapters:**

### Chapter 13.04 THE FIRE CODE OF CLARK COUNTY<sup>1</sup>

**Sections:**

#### **13.04.010 Short title.**

This chapter shall be known as the "Fire Code of Clark County" and may be cited as such. Where the designation "International Fire Code" or the abbreviation "IFC" appears in this chapter, it shall be construed as referring to the International Fire Code as adopted in and amended by this chapter.

(Ord. No. 3922, § 1, 12-21-2010)

#### **13.04.020 Adoption.**

That certain document, three copies of which are on file in the Office of the County Clerk in the Clark County Government Center, being marked and designated as the "International Fire Code, 2018 edition" published by the International Code Council, together with all tables of contents, definitions, articles, tables, indices, examples and the following appendices: Appendix B Fire-Flow Requirements for Buildings; Appendix C Fire Hydrant Locations and Distribution; Appendix D Civil Improvement Plan; Appendix H Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS) Instructions; Appendix O Proprietary (Self) Monitoring, Appendix P Fire Protection Systems; Appendix Q Southern Nevada Fire Chiefs Association Approved Guideline for Consumer Fireworks—Impairments and Systems out of Service; is hereby designated as the Fire Code of Clark County and by this designation and reference is adopted and made a part of this chapter, the same as if it were fully set forth herein.

That certain document, three copies of which are on file in the office of the County Clerk of Clark County, being marked and designated as the "Southern Nevada Consensus Fire Code Amendments Adapted to the 2018 IFC including various NFPA Standards," together with all tables of contents, definitions, articles, tables, indexes, examples and appendices, is hereby adopted and made a part of this chapter, the same as if it were fully set forth herein, except as amended by this chapter.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019)

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<sup>1</sup>Editor's note(s)—Ord. No. 3922, § 1, adopted Dec. 21, 2010, amended Ch. 13.04 in its entirety, in effect repealing and reenacting said chapter to read as herein set out. The former Ch. 13.04, §§ 13.04.010—13.04.620, pertained to similar subject matter and derived from Ord. 1802 §§ 1—3, 5, 1996; Ord. 2289 §§ 1, 2, 5, 1999; and Ord. 3285 (part), 2005.

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### **13.04.030 Establishment of bureau of fire prevention.**

The International Fire Code shall be enforced by the bureau of fire prevention of the Clark County fire department, which is established, and which shall be operated under the supervision of the chief of the fire department. The fire chief shall participate in recommending any proposed modifications to the International Fire Code to the board of county commissioners.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4095, § 2, 4-2-2013; Ord. No. 4889, § 2, 10-5-2021)

### **13.04.050 Citations for violations.**

The chief of the Clark County fire department and members of the bureau of fire prevention may prepare, sign and serve written citations on persons accused of violating any provision of this title. Any designated employee issuing a citation pursuant to this section shall comply with the provisions of NRS 171.1773.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4095, § 3, 4-2-2013; Ord. No. 4889, § 2, 10-5-2021)

### **13.04.060 Amendments to International Fire Code.**

Certain parts, articles, divisions, sections and subsections of the 2018 International Fire Code are supplemented, modified, amended and deleted as provided in the following sections of this chapter. Notwithstanding anything to the contrary contained in the International Fire Code, the terms "chief" or "fire code official" as used in that Code shall be the chief of the Clark County fire department or designee.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4095, § 4, 4-2-2013; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019; Ord. No. 4889, § 2, 10-5-2021)

### **13.04.070 Scope and administration.**

A subsection, designated "101.1 Title," is amended to read as follows:

**101.1 Title.** These regulations shall be known as the Fire Code of Clark County, hereinafter referred to as "this code."

A subsection, designated "101.6 Supplemental Rules and Regulations," is amended to read as follows:

**101.6 Supplemental rules and regulations.** The fire code official is authorized to render interpretations of this code and to make and enforce rules and supplemental policies, regulations and guidelines in order to carry out the application and intent of its provisions. Such interpretations, rules, policies, regulations, and guidelines shall be in conformance with the intent and purpose of this code and shall be available to the public during normal business hours.

A subsection, designated "102.8 Subjects not regulated by this Code." is added to read as follows:

**102.8 Subjects not regulated by this code.** Where applicable standards or requirements are not set forth in this code, or are contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of the National Fire Protection Association, FM Global Property Loss Prevention Data Sheets or other nationally recognized fire safety standards, as approved, shall be deemed prima facie evidence of compliance with the intent of this code. Nothing herein shall derogate from the authority of the fire code official to determine compliance with codes or standards for those activities or installations within the fire code official's jurisdiction or responsibility.

A subsection, designated "104.9 Alternative materials and methods," is amended to read as follows:

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**104.9 Alternative materials and methods.** The provisions of this code are not intended to prevent the installation of any material or to prohibit any method of construction not specifically prescribed by this code, provided that any such alternative has been approved. The *fire code official* is authorized to approve an alternative material or method of construction where the *fire code official* finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purposes intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety. The *fire code official* is authorized to require design submittals to be prepared by, and bear the stamp of, a Nevada registered design professional.

A new subsection, designated "104.13 Citations," is amended to read as follows:

**104.13 Citations.** The fire code official is authorized to issue a citation to persons operating or maintaining an occupancy, premises or vehicle subject to this code who allow a hazard to exist or fail to take immediate action to abate a hazard on such occupancy, premises or vehicle when ordered or notified to do so.

A subsection, designated "105.1.1 Permits required," is amended to read as follows:

**105.1.1 Permits required.** Any property owner or authorized agent who intends to conduct an operation or business, or install or modify systems and equipment which is regulated by this code, or to cause any such work to be done, shall first make application to the fire code official and obtain the required permit. Permit fees shall be assessed in accordance with Section 106.

A subsection, designated "105.1.3 Multiple permits for the same location," is amended to read as follows:

**105.1.3 Multiple permits for the same location.** When more than one permit is required for the same location, the fire code official is authorized to consolidate such permits into a single permit provided that each provision is listed in the permit. Where multiple individual permits are combined, the associated permit fees per Section 106 shall be accumulated to derive the required permit fee.

A new subsection, designated "105.1.4 Certificate of Insurance," is deleted in its entirety.

A subsection, designated "105.2 Application," is amended to read as follows:

**105.2 Application.** Application for a permit required by this code shall be made to the fire code official in such form and detail as prescribed by the fire code official. Applications for permits shall be accompanied by such plans as prescribed by the fire code official.

Applications shall be filled out by the owner, contractor, or representative thereof. The application type, service delivery requested, the property description, and applicant information shall be provided on approved forms. For the full permit fee schedule, see Section 106.

Submittals shall include a minimum of three copies of plans and supporting documentation, unless the associated guideline allows less than three copies. Such plans and documentation shall show compliance with this code, as amended and adopted in this jurisdiction. All plans and submittal shall be clear, legible and readable.

A subsection, designated "105.3.1 Expiration," is amended to read as follows:

**105.3.1 Expiration.** An operational permit shall remain in effect until reissued, renewed, or revoked or for such a period of time as specified in the permit. Construction permits shall automatically become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced, as evidenced by failure to request an inspection. Before such work recommences, the permit shall be first renewed and the fee to recommence work, if any, shall be one-half the amount required for the original permit for such work, provided no changes have been made or will be made in the original construction documents for such work, and provided further that such suspension or abandonment has not exceeded one year. Permits that have expired or been abandoned for a period exceeding one year may only

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be renewed with approval from the fire code official and with the payment of a fee equal to the original permit fee for such work. Permits are not transferable and any changes in occupancy, operation, tenancy or ownership shall require a new permit to be issued.

A subsection, designated "105.3.1.1 Renewal of Expired Permits." is added to read as follows:

**105.3.1.1 Renewal of Expired Permits.** Renewal of Permits. Upon the expiration of a permit, before work can be recommenced, a permit renewal shall be obtained. The permit renewal fee shall be one-half the amount required for an initial permit for such work, provided no changes have been made or will be made in the original approved construction documents. After one year (365 days) following the last approved inspection or since the issue date of the permits(s), the permit applicant must file an application for a new permit(s). Renewal of a permit issued prior to the current code cycle will only be allowed when authorized by the fire code official.

A subsection, designated "105.6.6 Combustible dust-producing operations" is amended to read as follows:

**105.6.6 Combustible dust-producing operations.** An operational permit is required to operate a grain elevator, flour starch mill, feed mill, or a plant pulverizing aluminum, coal, cocoa, magnesium, spices or sugar, or other operations producing combustible dusts as defined in Chapter 2.

**Exception:** Woodworking operations that occupy less than 5,000 square feet and where the dust-producing equipment requires an aggregate dust collection flow rate of less than 1,500 cfm are exempt from a permit.

A subsection, designated "105.6.13 Exhibit and trade shows," is amended to read as follows:

**105.6.13 Exhibit and trade shows.** An operational permit is required to operate exhibits and trade shows with an occupant load of 300 persons or greater.

A subsection, designated "105.6.16(6)" is amended by adding an exception to read as follows:

6. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and *combustible liquids* are produced, processed, transported, stored, dispensed or used.

**Exception:** Commercial cooking oil

A subsection, designated "105.6.23(2)" is amended to read as follows:

2. Use of portable hot work equipment inside, upon, or within 10 feet of a structure.

**Exception:** Work that is conducted under a construction permit.

A subsection, designated "105.6.32 Open flames and candles" is amended to read as follows:

A subsection, designated "105.6.27 LP-gas" is added to read as follows:

**105.6.27 LP-gas.** An operational permit is required for:

1. Storage and use of LP-gas

**Exceptions:**

1. An operational permit is not required in Group R-3 occupancies and buildings constructed in accordance with the IRC.

2. An operational permit is not required for individual containers with a 30-gallon (113.6 L) water capacity or less or multiple containers having an aggregate quantity not exceeding 30 gallons (113.6 L).

3. Operation of cargo tankers that transport LP-gas.

4. An operational permit is not required for LP-gas used in accordance with IFC Section 319, Mobile Food Preparation Vehicles.

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**105.6.32 Open flames and candles.** An operational permit is required to use open flames or candles in connection with assembly areas, dining areas of restaurant or drinking establishments. Annual permits for open flames and candles that are periodically used at facilities are acceptable where the permit application provides all conditions surrounding the use of the particular open flames or candles. This annual permit allows a facility to use preapproved open flames and candles repeatedly throughout the year.

**Exception:** Alcohol based food-warming devices do not require a permit.

A subsection, designated "105.6.34 Places of Assembly," is amended to read as follows:

**105.6.34 Places of assembly.** An operational permit is required to operate a place of assembly with an occupancy load of 300 persons or greater.

A subsection, designated "105.6.43 Repair and motor fuel dispensing facilities" is amended to read as follows:

**105.6.43 Repair garages facilities.** An operational permit is require for operation of repair garages.

A subsection, designated "105.6.49 Fire Pumps," is hereby deleted in its entirety.

A subsection, designated "105.6.50 Fire Suppression and Extinguishing Systems," is hereby deleted in its entirety.

A subsection, designated "105.6.56 Smoke Control System," is hereby deleted in its entirety.

A subsection, designated "105.6.57 Smoke Removal Systems," is hereby deleted in its entirety.

A new subsection, designated "105.6.58 Radioactive Materials," is amended to read as follows:

**105.6.58 Radioactive Materials.** An operational permit is required to store or handle at any installation any amount of radioactive material for which a specific license from the Nuclear Regulatory Commission and/or Nevada State Health Division Radiation Control is required.

A new subsection, designated "105.6.59 Flame Effects" is amended to read as follows:

**105.6.59 Flame effects.** An operational permit is required to produce combustion through the use of flammable solids, liquids, or gases to produce thermal, physical, visual, or audible phenomenon for entertainment, exhibition, demonstration or simulation. See NFPA 160.

A new subsection, designated "105.6.61 Asbestos removal," is deleted in its entirety.

A new subsection, designated "105.6.62 Battery Systems," is added is deleted in its entirety.

A subsection, designated "105.7 Required construction permits," is amended to read as follows:

**105.7 Required construction permits.** The fire code official is authorized to issue construction permits for work as set forth in Section 105.7.1 through 105.7.16.

Where both an operational permit per Section 105.6 and a construction permit per 105.7 of the same title are required, a single submittal covering both the operational and construction permit requirements shall be acceptable.

A subsection, designated "105.7.19 Private Fire hydrants and associated piping" is amended to read as follows:

**105.7.19 Fire hydrants and associated piping.** A construction permit is required for the installation or modification of fire hydrants and associated piping including fire service mains, sprinkler system laterals and temporary hydrants. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

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**Exception:** Public utility fire hydrants do not require fire prevention installation permits where the installation is inspected by the water purveyor.

A subsection, designated "105.7.20 Smoke control, smoke removal or smoke exhaust systems control panels" is amended to read as follows:

**105.7.20 Smoke control, smoke removal or smoke exhaust systems control panels.** Construction permits are required for installation of or alteration to smoke control, smoke removal or smoke exhaust systems control panels. Maintenance performed in accordance with this code is not considered to be an alteration and does not require a permit.

A subsection, designated "105.7.23 Smoke Control System Control Panel," is deleted in its entirety.

A subsection, designated "105.7.24 Smoke Removal System Control Panel," is deleted in its entirety.

A subsection, designated "105.7.28 Refrigeration systems," is hereby deleted in its entirety.

A subsection, designated "105.7.31 Fire apparatus access road" is added to read as follows:

**105.7.31 Fire apparatus access road plan.** A construction permit is required for the installation of or modification to a fire apparatus access road required for access to a protected premise. See Chapter 5 and Appendix C.

A subsection, designated "105.7.32 heliports, Helistops and Emergency Landing Pads" is added to read as follows:

**105.7.32 Heliports, Helistops, and Emergency Landing pads.** A construction permit is required for the installation of or modification to a heliport, helistop, and/or emergency landing pad. See Chapter 20 and NFPA 418.

A new subsection, designated "105.7.33 Radioactive Materials" is added to read as follows:

**105.7.33 Radioactive Materials.** A construction permit is required to store or handle at any installation any amount of radioactive material for which a specific license from the Nuclear Regulatory Commission and/or Nevada State Health Division Radiation Control is required.

A subsection, designated "106.6 Permit and Service Fee Schedule," is amended to read as follows:

**106.6 Permit and Service Fee Schedule.** Fees for permits, inspections and other services shall be as set forth in the Permit and Service Fee Schedule, as adopted and amended from time to time by the Commission of Clark County. Permits, plan reviews and other services shall be charged the fees identified in Table 106-A through Table 106-G.1.

A subsection, designated "106.6.1 Permit & Service Fee Payment." is added to read as follows:

**106.6.1 Permit & Service Fee Payment (effective July 1, 2023)** The fees for issuance and plan review of each type of permit shall be as set forth in this section. The plan review fee is integrated into the permit fees, as calculated. Applicant shall pay half of the estimated permit fee at the time of submitting the application for review. The remaining balance of the permit fee shall be paid prior to the issuance of the permit.

A subsection, designated "106.6.2 Express Plan Processing," is added to read as follows:

**106.6.2 Express Plan Processing.** The fire code official may establish an express plan review program with rules and regulations, subject to workload and staff availability, for providing express services without adversely impacting normal plan review activities. Additional fees shall be charged for express plan review services as established in Table 106-G.

A subsection, designated "106.6.3 Fee Refunds," is added to read as follows:

**106.6.3 Fee Refunds.** The fire code official may authorize the refunding of any fee imposed by this Chapter, which was erroneously paid or collected. The fire code official shall not authorize the refunding of any fee paid except upon written application filed by the original permit holder and not later than 180 days after the date of fee payment. Limits placed on refunds include:

(A) Not more than 80 percent of the permit fee paid at the time of application submittal when no work in reviewing the applications has been done under a permit application prior to the issuance of the permit in accordance with this Chapter; or,

(B) Not more than 80 percent of the permit fee paid at the time of permit issuance when no work has been done under a permit issued in accordance with this Chapter; or,

(C) The fire code official may authorize credit towards the purchase of replacement permits for work destroyed during construction by a natural or manmade catastrophe of up to one-half of the original permit fee paid. The amount of the credit shall be pro-rated based on the number of required inspections completed before destruction.

(D) The fire code official may authorize a 100% refund in the event that an error has been made by the Department, as determined by the fire code official. The refund amount is limited to the fees collected in error. In the event the Department requires an incorrect permit type to be void, the fire code official may authorize a credit from fees paid to be applied to the correct replacement permit.

A subsection, designated "106.6.4 Affordable Housing Fee Reduction," is added to read as follows:

**106.6.4 Affordable Housing Fee Reduction.** Pursuant to the Resolution No. 3-16-21-4 approved by the Board of County Commissioners on March 16, 2021, certain affordable housing development projects are entitled to the reduction in development fees assessed in section 106.6 of this Code as follows:

(A) Affordable housing projects that meet a criteria of a deed restricted sales or rent targeting between 61-80% of AMI may receive a reduction in fees of 50%.

(B) Affordable housing projects that meet a criteria of a deed restricted sales or rent targeting 60% of AMI or below may receive a reduction in fees of 75%.

(C) Affordable housing projects that offer a blend of rental rates or sales prices, may qualify for a calculated fee reduction on the blended rates.

Only projects issued an Affordable Housing Certificate by Clark County Community Resource Management will be eligible for the discounted fees as stated under this section.

**Table 106-A**

<b>Minimum Permit Fee is \$90 unless otherwise noted in 106.6</b>
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**Table 106-B (effective July 1, 2023)**

<b>\$90 per count of components</b>	
<b>Permit Name</b>	<b>Explanation of Escalation</b>
Access Gates	Escalation per gate (automatic or manual)
Amusement Buildings	Escalation per amusement building
Covered mall buildings - Kiosks	Escalation per kiosk
Explosives - Storage	Escalation per fireworks stand bunker or magazine
Hot-work operations	Escalation per location, mobile, fixed, combination
Industrial Ovens	Escalation per oven

Open Flames and Candles	Escalation per each separate type of device/assembly, not per device count, i.e. candles, portable stoves, etc.
Pyrotechnic special effects materials - July 4 Sales Booth	Escalation per each booth
Special Activity Lot	Escalation per activity, i.e. Christmas Tree Lot, Pumpkin Patch, Hay-Ride Lot, etc.
Spraying or dipping	Escalation per booth/spray area/dipping area

**Table 106-C(a)**

<b>Fee of \$90 per Range Unit, as Determined by Volume of Material per Table 113-C(b)</b>	
<b>Permit Name</b>	
Aerosol Products - excess of 500 lbs.	Flammable and combustible liquids -Aboveground Storage/Use
Compressed gas/Medical gas	Hazardous Materials and/or HPM Facilities
Cryogenic Fluids	LP gases (Commercial aggregate, over 4,000 gallons)
Dry cleaning plants (Classes I, II, IIIA, IIIB)	Organic coatings
Flammable and combustible liquids - Underground Storage/Use	Refrigeration equipment

**Table 106-C(b)**

<b>PERMIT CALCULATION TABLES - FEE IS \$90 TIMES THE RANGE</b>	
<b>Liquids in Gallons × 3.785 for L</b>	<b>Range</b>
0	0
>0 - <54	1
54 - <500	2
500 - <946	3
946 - <1,836	4
1,836 - <4500	5
4,500 - <15,180	6
15,180 - <65,681	7
65,681 - <70,000	8
70,000 - <75,000	9
75,000 - <80,000	10
80,000 - <85,000	11
85,000 or greater	12
<b>Solids by Pounds × 0.4536 for kg</b>	<b>Range</b>
0	0
>0 - <499	1
499 - <1,000	2
1,000 - <2,000	3
2,000 - <3,000	4
3,000 - <4,000	5
4,000 - <5,000	6
5,000 - <10,000	7
10,000 - <11,000	8



11,000 - <12,000	9
12,000 - <13,000	10
13,000 - <14,000	11
14,000 or greater	12
<b>Gases by Cubic Feet × 0.028 for m<sup>3</sup></b>	<b>Range</b>
0	0
>0 - <199	1
199 - <1,999	2
1,999 - <3,600	3
3,600 - <6,800	4
6,800 - <16,400	5
16,400 - <35,000	6
35,000 - <54,000	7
54,000 - <74,000	8
74,000 - <80,000	9
80,000 - <85,000	10
85,000 - <90,000	11
90,000 or greater	12

**Table 106-D**

<b>SQUARE FOOTAGE TABLES</b>	
<b>FEE IS \$90 TIMES THE RANGE</b>	
<b>SF</b>	<b>RANGE</b>
Permit Threshold - 14,999 sf	1
15,000 sf - 74,999 sf	2
75,000 sf - 149,999 sf	3
150,000 sf and greater	4
<b>Permit Name</b>	
Aviation Facilities, Aircraft repair hangar	High pile storage
Combustible dust-producing operations	Places of Assembly
Exhibits and trade shows*	Temporary outdoor membrane structures and tents

\* A single temporary event permit is allowed for separate rooms that are used for the same event/use, provided the rooms are located on the same floor level and are within 250 feet of each other, as measured along egress routes

**Table 106-E**

<b>FIREWORKS/PYROTECHNICS</b>	
<b>FEE IS \$90 TIMES THE RANGE</b>	
<b>DEVICE COUNT</b>	<b>RANGE</b>
0 - 500 device	1
501 - 1,500 devices	2
1,501 - 2,500 devices	3
2,501 or more devices	4
<b>Permit Name</b>	

Explosives - Fireworks/Pyrotechnics	Pyrotechnic special effects materials - Fireworks/Pyrotechnics
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**Table 106-F**

<b>FIRE PROTECTION SYSTEMS</b>		
<b>MINIMUM FEE IS \$90, fee calculated based on</b>		
<b>Permit Type</b>	<b>Fee</b>	<b>Comments</b>
Civil Underground	\$45/Acre	
Fire Alarm	\$1.00/100 s.f.	
Fire Pumps	\$3.00/1,000 s.f.	\$540 minimum permit fee
Automatic Fire Sprinkler, <20 heads	\$6.00/1,000 s.f.	
Automatic Fire Sprinkler, >20 heads	\$20.00/1,000 s.f.	
Wet Chemical Suppression	\$130.00/100 s.f.	
Dry Chemical Suppression	\$16.00/100 s.f.	
Standpipe	\$2.00/1,000 s.f.	
Water Supply Storage Tank	\$15.00/1,000 gallons	

**Table 106-G**

<b>FEEES FOR OTHER SERVICES</b>		
<b>SERVICE</b>	<b>FEE</b>	<b>COMMENTS</b>
Minimum Permit Fee	\$90	
Reinspection fees	\$90 per hour, per person	Minimum one hour, to include travel time. Applies to 2nd reinspection for same deficiencies.
Overtime Inspection and plan review fees (Outside of regular work hours)	\$90 per hour, per person	Minimum three hours, to include travel time for inspectors. Inspections and/or plan review requested outside of regular business hours.
Overtime Inspection fees (Extension of work day)	\$90 per hour, per person	Actual time worked. Minimum one hour, to include travel time.
Same-Day Inspection Fee	\$270	Also responsible for inspector's overtime.
Complaint Inspection fee	\$90 per hour, per person	Minimum one hour, to include travel time. Applies to 3rd inspection visit, and each subsequent re-inspection visit for the same deficiencies.
Inspections or service for which no fee is specifically indicated	\$90 per hour, per person	Actual time worked. Minimum one hour, to include travel time. Fee is assessed for inspections and services for any building, structure or premises which is not covered by an existing valid permit or for other situations where requested by the customer, for work to be

		conducted at the option of the fire code official.
Dedicated Staff Fee	\$150 per hour, per person	For major projects that request that the fire code official assign one or more inspectors to be available on-site to perform inspections on call, or assign one or more plans reviewers to perform plans review on an expedited fashion. This service is subject to available resources, and requires a preapproved and executed agreement prior to commencement.
Additional plan review fees	\$90 per hour	Minimum one hour. Rounded to next half-hour.
Sprinkler Design Flow Test	\$90	To establish basis for fire sprinkler system design
Express Plan Review	2 × permit fee	Please note this service is subject to staff availability and required pre-approval.
Letters of Agreement and other reviews	\$90 per hour	Combustible load-in policy, phased system installation, TCO approval letters, evacuation plans, smoke control/removal recertification reports etc.
Customer-requested reviews	\$90 per hour	Reviews requested by customers not otherwise required by codes
Fire Protection Report - tenant improvement/remodel	\$90 per hour	Per report
Fire Protection Report - Full facility, alternate methods, TCO	\$180, or \$90 per hour, whichever is greater	Per report
Technical Opinion and Report	\$180, or \$90 per hour, whichever is greater	Per report. Includes review of documents for Emergency Planning and Preparedness.
Returned Check Fee	\$25	
Address change	\$90 per hour for additional plan review (revision). \$45 (half minimum permit fee) for permit reprint only no plan changes.	Minimum one hour. Rounded to next half-hour
Renewable permit late fee	\$90 per each 30-day period past the renewable due date	
Extension of unexpired construction permit	\$45 for each extension of time for an unexpired construction permit	Maximum of 1 extension of additional 180 days permitted if request is made prior to expiration of the permit
Apparatus Standby (with 4 fire personnel)	\$500 per hour	Minimum of 4 hours per apparatus, applied and payable to the Fire Department.

		All apparatus standby, fire personnel and equipment rates may be subject to an amount not to exceed a 3% increase at the beginning of each fiscal year.
Nuisance Alarm Fee	\$500	Payable to the Fire Department
Any additional services provided by Fire Prevention not specified herein	\$90 per hour	
Work Without Permits	Permit fee required for immediate plan review, plus 3x hourly rate for inspection of scope of unpermitted work, per person, 3 hour minimum per person	Fee whenever any work for which a permit is required has been commenced without first obtaining a permit, or where work has been found to exceed the scope of a valid permit.
Emergency Responses	Actual fire personnel and equipment using rates as defined in the table	At the fire chiefs discretion, the fire department may charge die property owner or permit holder for any resources utilized to respond to an emergency in which a preventable hazardous condition caused the emergency response. This includes, but is not limited to, building, health, and fire code violations, insufficient on-site resources, or an insufficient safety plan.

**Table 106-G.1**  
**Fire Personnel and Equipment Rates**  
Public Safety Staffing, including, but not limited to, Special Events

<b>FIRE PERSONNEL</b>	<b>Fee</b>	<b>Comments</b>
Battalion Chief	\$150 per hour	Minimum of 4 hours per fire personnel and/or fire equipment to staff an event; all fees shall be applied and payable to the Clark County Fire Department. All apparatus standby, fire personnel and equipment rates may be subject to an amount not to exceed a 3% increase at the beginning of each fiscal year.
Emergency Medical Services (EMS) Coordinator	\$125 per hour	
Fire Captain	\$115 per hour	
Fire Engineer	\$100 per hour	

Fire Investigator	\$100 per hour
Logistic Officer	\$100 per hour
Fire Fighter	\$90 per hour
Engine Unit or Utility Vehicle (with 4 fire personnel)	\$500 per hour
Utility Vehicle (with 3 fire personnel)	\$400 per hour
Rescue Unit or Utility Vehicle (with 2 fire personnel)	\$300 per hour

A subsection, designated "109 Board of Appeals," is amended to read as follows.

**SECTION 109 BOARD OF FIRE CODE APPEALS**

**109.1 Board of fire code appeals, established.** 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, there shall be and is hereby created a board of fire code appeals. The board of fire code appeals shall be appointed by the governing body and shall hold office at its pleasure. The *fire code official* shall be the secretary of said board but shall have no vote on any matter before the board. The board shall adopt rules of procedure for conducting its business, and shall render all decisions and findings in writing to the appellant with a duplicate copy to the *fire code official*.

**109.2 Limitations on authority.** An application for appeal shall be based on a claim that the intent of this code or the rules legally adopted hereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent method of protection or safety is proposed. The board shall have no authority to waive requirements of this code.

**109.3 Qualifications.** The board of fire code appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to hazards of fire, explosions, hazardous conditions or fire protection systems and are not employees of the Fire Prevention Bureau.

**109.4 Members.** The members shall be qualified by training and experience to decide matters pertaining to building construction and building service equipment. The members shall not be employees of the Fire Prevention Bureau. The members of the Board shall consist of the following:

1. One (1) Fire Protection Engineer registered by the State of Nevada;
2. One (1) Civil Engineer registered by the State of Nevada;
3. One (1) fire sprinkler contractor licensed by the State of Nevada;
4. One (1) fire alarm contractor licensed by the State of Nevada;
5. One (1) representative of the exhibit and trade industry;
6. One (1) specialist, as identified in Section 104.7.2, in fire safety;
7. One (1) specialist, as identified in Section 104.7.2, in hazardous materials;
8. One (1) layperson; and
9. The Fire Chief of Clark County Fire Department.

The members of the Board of Fire Code Appeals shall be appointed for terms of four years by the Board of County Commissioners and may be removed from office at any time by the Board of County Commissioners.

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**109.5 Procedures.** The Board of Fire Code Appeals shall adopt rules and procedures for conducting its investigations and hearings. A person (the appellant) who wishes to appeal a determination of the Fire Code Official to the Board shall submit a written request for appeal to the Fire Code Official within 15 business days of the original determination by the Fire Code Official. The Fire Code Official shall provide to the appellant a copy of the guidelines for preparing appeals and a copy of the Board's rules and procedures. The appellant will be responsible to prepare a written appeal in compliance with the guidelines. The Fire Code Official will schedule a hearing before the Board. The Fire Prevention Division may submit information and evidence in support of the Fire Code Official's determination. The Board shall issue a written decision based on the evidence presented at the hearing. The decision shall be signed by the Chairman of the Board, and shall be filed with the Fire Code Official. A copy of the decision will be delivered to the appellant by U.S. certified mail.

**109.6 Limitation and Scope of Authority.** The Board of Fire Code Appeals shall have no authority relative to interpretation of the administrative provisions of this Chapter or the administrative provisions of the technical codes nor shall the Board be empowered to waive requirements of either this Chapter or the technical codes.

**109.7 Liability.** Neither the Board of Fire Code Appeals nor any member thereof shall be liable for, and the Board and each member thereof is hereby relieved from all personal liability for any damage that may accrue to persons or property as a result of any good faith act or by reason of any good faith act or omission in the discharge of any duty specified herein. Any suit brought against the Board or any member thereof resulting from such act or omission performed by them as members of the Board in the performance of their duties shall be considered an act of Clark County and shall be subject to its liability insurance coverage.

**109.8 Tests and Research.** Appellants shall cause to be made at their own expense any tests or research necessary to support their claims before the Board of Fire Code Appeals.

A subsection, designated "110.4 Violation penalties," is amended to read as follows:

**110.4 Violation penalties.** Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the building official, or of a permit or certificate used under the provisions of this code, shall be guilty of a misdemeanor, and upon conviction thereof, be punished by a fine of not more than one thousand dollars and/or imprisonment in the county jail for not more than six months, or any combination of such fine and imprisonment. Every day of such violation shall constitute a separate offense.

A new subsection, designated "110.5 Administrative Citations," is added to read as follows:

**110.5 Administrative Citations.** Any person violating any of the provisions, or failing to comply with any of the requirements, of Chapter 13.04 of the Clark County Code, may be issued a civil administrative citation by the building official, or their designated representative authorized to issue misdemeanor citations, or other civil notices, for such violations. The fines schedule for such administrative citation shall be as follows:

- (a) For a first violation, a fine not exceeding \$250.00 plus costs borne by the County
- (b) For subsequent offences within one year of the first offense, a fine not exceeding \$500.00 plus costs borne by the County.

A new subsection, designated "110.6 Administrative Procedures," is added to read as follows:

**110.6 Administrative Procedures.** The Administrative Procedures outlined in Title 1. Chapter 1.14.020-1.14.030 shall be same procedures applicable to Chapter 13.04 of the Clark County. For administrative provisions outlined in Title 1. Chapter 1.14.040-1.14.130 which refer to the "Chief of Code Enforcement," the term "Chief of Code Enforcement" shall be replaced with the term "Building Official."

A subsection, designated "112.4 Failure to comply," is amended to read as follows:

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**112.4 Failure to comply.** Any person who shall continue any work after being served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be guilty of a misdemeanor, and upon conviction thereof, be punished by a fine of not more than one thousand dollars and/or imprisonment in the county jail for not more than six months, or any combination of such fine and imprisonment. Every day of such violation shall constitute a separate offense.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4261, § 1, 12-2-2014; Ord. No. 4365, § 1, 5-2-2016; Ord. No. 4664, § 1, 1-22-2019; Ord. No. 4811, § 1, 10-6-2020; Ord. No. 5010, § 1, 1-3-2023)

### **13.04.075 Definitions.**

A subsection, designated "DECOMMISSIONING," is added to read as follows:

**DECOMMISSIONING.** Planned shut-down which may or may not include removal of a building, system, in whole or part, operation, or use.

A subsection, designated "HIGH-RISE BUILDING," is amended to read as follows:

**HIGH-RISE BUILDING.** A building with an occupied floor located more than 55 feet (16 764 mm) above the lowest fire department vehicle access. This definition shall apply throughout this code and throughout all referenced codes and standards as stated in Section 102.7 and all applicable standards or requirements that are not set forth in this code as stated in Section 102.8.

A subsection, designated "CARE FACILITIES WITHIN A DWELLING," is amended to read as follows:

**Care facilities within a dwelling.** Care facilities for 11 or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the International Residential Code.

In facilities that have three or more residents who have difficulty perceiving danger or moving to safety in the event of a fire, the facility must be equipped with a NFPA 13R fire sprinkler system.

(Ord. No. 4664, § 1, 1-22-2019)

### **13.04.080 General requirements.**

A subsection, designated "308.1.4 Open-flame cooking devices," is amended to read as follows:

**308.1.4 Open-flame cooking devices.** Charcoal burners and other open-flame cooking devices, including electric barbecues that produce open flames, shall not be located above the first story, operated on combustible balconies or within 10 feet (3048 mm) of combustible construction.

**Exceptions:**

1. One- and two-family dwellings
2. Where buildings, balconies and decks are protected by an automatic sprinkler system, open flame cooking devices utilizing natural gas installed under a construction permit issued by the building code official.

A subsection, designated "308.1.6.2 Portable fueled open-flame devices," is deleted in its entirety.

A subsection, designated "315.7 Outdoor pallet storage," is amended to read as follows:

**315.7 Outdoor pallet storage.** Pallets stored outdoors shall comply with Section 315.7 through 315.7.10. Pallets stored within a building shall be protected in accordance with Chapter 32.

A subsection, designated "315.7.2 Distance to lot line," is amended to read as follows:

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**315.7.2 Distance to lot line.** Pallet storage shall not be located within 10 feet (3048 mm), or a distance equal to the stack height, whichever is greater, of a lot line.

A subsection, designated "315.7.3 Distance to lot line," is amended to read as follows:

**315.7.3 Storage height.** Pallet storage shall not exceed a height of 15 feet (4572 mm) or any height restriction set by other ordinances of the jurisdiction, whichever is lower.

A subsection, designated "315.7.8 Fire flow," is added to read as follows:

**315.7.8 Fire Flow.** The minimum required fire flow in pallet storage yards shall not be less than 2,000 gpm (7571 L/m). For storage yards with stable piles greater than 6,200 square feet (576 m<sup>2</sup>) the required fire flow will follow the requirements of Appendix B, Table B105.1 for Type V-B construction. Pallet storage yards shall not exceed the available fire hydrant flow and spacing.

A subsection, designated "315.7.9 Fire hydrants," is added to read as follows:

**315.7.9 Fire Hydrants.** Fire hydrants required for fire flow purposes for pallet storage array(s) shall be provided within 300 feet (91 440 mm) of hose lay to all pallets.

A subsection, designated "315.7.10 Fire Department access," is added to read as follows:

**315.7.10 Fire Department Access.** Fire apparatus access roads in accordance with Section 503 shall be located within 150 feet (45 720mm) of all portions of the pallet storage array(s). Permanent delineation of on-site fire apparatus access roads shall be provided as required by the *fire code official*.

A subsection, designated "320.2.1 Automatic Sprinklers," is amended to read as follows:

**320.2.1 Automatic Sprinklers.**

**320.2.1.1** Exhibit Booths exceeding 1,500 square feet are not permitted in nonsprinklered buildings.

**320.2.1.2** Single-level exhibit booths exceeding 1,000 sq. ft. (93 m<sup>2</sup>) and covered with a ceiling shall be protected by automatic fire sprinklers installed within the booth.

**Exception:** Where the booth is used in an event with duration less than 7 calendar days and does not contain vehicles, open flame or hot works, automatic fire sprinklers are not required, provided the aggregate area of unsprinklered booths within the room does not exceed 30% of the room size.

**320.2.1.3** Each level of multi-level exhibit booths shall be protected by an automatic fire sprinkler system installed within the booth where the accessible floor area of the upper walking level(s) is greater than 1000 sq ft. (93 m<sup>2</sup>).

**Exception:** Where the booth is used in an event with duration less than 7 calendar days and does not contain vehicles, open flame or hot works, automatic fire sprinklers are not required, provided the aggregate area of unsprinklered booths within the room does not exceed 30% of the room size.

**320.2.1.4** The water supply and piping for the fire sprinkler protection for exhibit booths shall be an approved temporary means provided by an existing standpipe system or an existing fire sprinkler system.

**320.2.1.5** Hydraulic calculations shall be provided to the Authority Having Jurisdiction when the sprinklers required by Section 320.2.1.1 and 320.2.1.2 are supplied by the standpipe system or in a hydraulically most remote location as defined by the currently adopted edition of Standard for the Installation of Sprinklers, NFPA 13.

A subsection, designated "321.6.2 Water Supply," is amended to read as follows:

**321.6.2 Water supply.** The special activity lot shall be located within 750 feet of a fire hydrant.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4261, § 1, 12-2-2014; Ord. No. 4664, § 1, 1-22-2019)



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### 13.04.085 Emergency planning and preparedness.

A subsection, designated 401.2 Approval, is amended to read as follows:

**401.2 Approval.** Where required by this code, fire safety plans, emergency procedures and employee training programs shall be approved by the fire code official.

Submittals shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the fire code official. The cover sheet of the submittal shall include a signature line by the preparer with the following statement:

"I have prepared this report and by personal knowledge and on-site observation certify that this plan, to the best of my knowledge, complies with the requirements of the code."

A new subsection, designated "401.9 Fees for false alarms and nuisance alarms," is added to read as follows:

**401.9 Fees for false alarms and nuisance alarms.** In the case of any two false or nuisance alarms, or combination thereof, within a thirty day period, the fire code official may issue warning notices to the owners or occupants of the building and to the alarm business or businesses responsible for the service, maintenance and monitoring of the system. This notice shall indicate that any additional false or nuisance alarms within a thirty day period will be subject to the fees prescribed in this code. When the owner or occupant fails to correct the fire protection system that initiates the false alarm and/or nuisance alarms within thirty calendar days from the issue date on a Notice of Violation prepared by the Fire Prevention Bureau, additional inspection fees shall apply.

A subsection, designated "403.2 Public safety plan," is deleted in its entirety.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4095, § 5, 4-2-2013; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019)

### 13.04.090 Fire service features.

A subsection, designated "503.1.1 Buildings and facilities," is amended to read as follows:

**503.1.1 Buildings and facilities.** Approved fire apparatus roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility. The use of section and half-section public streets in meeting the apparatus access requirements of this section for commercial buildings exceeding 500 total occupant load shall be approved by the fire chief. Where fire apparatus roads and pedestrian walkways are specifically approved to intermingle, a minimum of 5 feet (1524 mm) of pedestrian walkway shall be added on both sides of the fire apparatus road.

**Exceptions:**

1. The *fire code official* is authorized to increase the dimension of 150 feet (45,720 mm) where any of the following conditions occur:

- 1.1. The building, except for a Group H and/or high-pile storage occupancy, is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3. Where the building is protected with an approved automatic sprinkler system in accordance with minimum requirements, the fire apparatus roads shall extend to within 250 feet (76,420 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building.

- 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	See NFPA 13D Section 8.4
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>

- 1.3 Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or similar conditions, and an approved alternative means of fire protection is provided

- 1.4 There are not more than two Group R-3 or Group U occupancies or single-family dwellings built under the IRC

- 1.5 For buildings constructed in accordance with high-rise provisions, fire access along two adjoining sides of the building shall be permitted.

2. Where approved by the fire code official, fire apparatus access roads shall be permitted to be exempted or modified for solar photovoltaic power generation facilities

4. For buildings constructed in accordance with high-rise provisions, fire access along two adjoining sides of the building shall be permitted.

A subsection, designated "503.2.1 Dimensions," is amended to read as follows:

**503.2.1 Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than 24 feet (7,315 mm), exclusive of shoulders, except for approved access gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4,115 mm).

**503.2.1.1 Parallel Parking Permitted on Both Sides.** Where parallel parking is permitted on both sides of the fire apparatus access road, the minimum clear width of the fire apparatus road shall be shall be 36 feet (10 972 mm), measuring 37 feet (11 277 mm) from back-of-curb to back-of-curb for L curbs, 38 feet (11 852 mm) from back-of-curb to back-of-curb for R curbs, and 39 feet (11 887 mm) from back-of-curb to back-of-curbs for roll curbs.

**503.2.1.2 Parallel Parking Permitted on One Side Only, Commercial Only.** For commercial developments where parallel parking is permitted only on one side of the apparatus road, the minimum clear width of the fire apparatus road shall be 30 feet (9144 mm), measuring 31 feet (9448 mm) from back-of-curb to back-of-curb for L curbs, 32 feet (9752 mm) from back-of-curb to back-of-curb for R curbs, or 33 feet (10 058 mm) from back-of-curb to back-of-curb for roll curbs. Parallel parking on one side only for the purpose of narrowing the roadway width is not permitted for fire apparatus roads serving one- and two-family

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dwellings. Fire lane markings, provided in accordance with Section 503.3, shall be provided on the side of the road where parallel parking is prohibited.

**503.2.1.3 Parallel Parking Prohibited on Both Sides, Commercial Only.** For commercial developments where parallel parking is prohibited on both sides of a fire apparatus road, the minimum clear width of the fire apparatus road shall be 24 feet (7315 mm), measuring 25 feet (7620 mm) from back-of-curb to back-of-curb for L curbs, 26 feet (7924 mm) from back-of-curb to back-of-curb for R curbs, or 27 feet (8229 mm) from back-of—curb to back-of-curb for roll curbs. The prohibition of parallel parking on both sides for the purpose of narrowing the roadway width is not permitted for fire apparatus roads serving one- and two-family dwellings. Fire lane markings, provided in accordance with Section 503.3, shall be provided on both sides of the road where parallel parking is prohibited.

**503.2.1.4 Parking Lot Drive Aisles.** Where fire apparatus access roads pass through parking lots consisting of marked perpendicular and angled parking spaces, such fire apparatus access roads shall have a minimum clear width of 24 feet (7,315 mm), as measured from the edges of the marked parking spaces.

**503.2.1.5 Stub Streets.** For Group R, Division 3 structures and for structures constructed in accordance with the IRC, roads serving a maximum of 6 residences and having a maximum length of 150 feet, as measured from the intersection to the back of curb at the end of the stub street, may front onto a stub street with a minimum width of 25 feet from back-of-curb to back-of-curb, provided that all residences fronting on the stub street are provided with an approved automatic sprinkler system and that on-street parking on the stub street is prohibited.

A subsection, designated "503.4.1 Traffic calming devices," is amended to read as follows:

**503.4.1 Traffic calming devices.** Traffic calming devices shall be prohibited unless *approved by the fire code official*.

**Exceptions:**

1. Speed humps are allowed on private fire apparatus access roads serving commercial and industrial buildings when approved by the *fire code official*. The location(s), the number permitted, and the design of the speed hump(s) shall meet the approval of the *fire code official*.
2. Rumble strips are allowed on any private fire apparatus access road serving residential, commercial and industrial buildings when approved by the *fire code official*. A rumble strip must be no higher than  $\frac{3}{4}$  inches at the highest elevation above the roadway, and a maximum of eight feet in length, as measured along the direction of vehicle travel.

The *fire code official* is authorized to require the removal from any private property of any existing traffic management or calming device, including speed bumps, that do not meet the applicable criteria, and has been determined by the *fire code official* to unnecessarily hinder emergency apparatus response.

A new subsection, designated "503.4.2 Bollards," is added to read as follows:

**503.4.2 Bollards.** Bollards obstructing fire apparatus access roads shall be prohibited unless *approved by the fire chief*.

**Exception:** Automated bollards approved by the *fire chief*. The location(s), the number permitted, and the activation method shall meet the *approval* of the *fire chief*. An operational test shall be conducted prior to placing the system into operation using Fire Department apparatus.

The *fire code official* is authorized to require the removal from private property any existing bollards that do not comply with this section and has been determined by the *fire chief* to unnecessarily hinder emergency apparatus response.

A subsection, designated "503.6 Access Gates," is amended to read as follows:

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**503.6 Access Gates.** The installation of access gates across a fire apparatus access road shall be approved by the *fire code official*. Where access gates are installed, they shall have an approved means of emergency operation. The access gates and the emergency operation shall be maintained operational at all times. The minimum clear opening width shall be 20 feet.

**503.6.1 Permit.** A Fire Prevention Bureau installation permit is required to install a gate that obstructs a fire apparatus access road. A separate permit is required for each gated entrance.

**503.6.2 General.** Fire apparatus access roads that are secured by gates shall comply with the specifications of the Fire Prevention Bureau.

**503.6.3 Electronically controlled gates.** Electronically controlled gates shall be provided with an approved vehicle detector/receiver system in accordance with the rules and regulations specified by the Fire Prevention Bureau. Access gates shall be maintained operational at all times. When electronically controlled gates are out of service, they shall be secured in the open position until repairs are complete. Repairs shall be in accordance with original specifications.

**Exception:** When approved by the *fire code official*, electronically controlled gates that are manned on a 24-hour basis.

When required by the *fire code official*, the installing contractor or the owner of the property shall provide the Fire Department transmitter(s) or approved alternative without cost to the Fire Department.

The *fire code official* may provide transmitter(s), at no cost to the Fire Department, to local law enforcement agencies and/or an ambulance service for use in emergencies.

**503.6.4 Existing facilities.** All existing facilities with gates installed across access roads shall comply with Fire Department guidelines. Non-complying gates shall be secured in the open position in a manner approved by the Fire Department.

**Exception:** Gates securing sensitive facilities operated by a public utility governed by the Nevada Public Service Commission, a State of Nevada charter, or other public franchise, shall not be required to be secured in the open position.

**503.6.5 Plans and Specification.** Three sets of plans and specifications for fire apparatus access road gates shall be submitted for review and approval prior to construction. Included in the submittal shall be the following information:

1. Site plan with north arrow, roadway and gate dimensions
2. Location of underground roadway detector loop, and green marker, if applicable
3. Manufacturers' specification sheets detailing the voltage, current, radio frequency, power cable and coding for the proposed system, if applicable
4. Contractor's statement of compatibility with existing installations
5. Detailed vicinity map.

**503.6.6 Operational testing.** An operational test shall be requested by the installing contractor and shall be conducted prior to placing the system into operation to establish that the final installation complies with this code, the specified design, and is functioning properly.

A subsection, designated "507.1 Required water supply," is amended to read as follows:

**507.1 Required water supply.** An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction. The design and installation of both public and private fire hydrants shall be in accordance with this section, Appendix B, Appendix C, NFPA 24 (for private systems)

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and the Uniform Design And Construction Standards for Potable Water Systems (UDACS)(for public systems). Unless otherwise approved by the fire code official, effluent reuse water is not an approved water supply.

**Exception:** Highly treated effluent reuse water that meets or exceeds the State of Nevada Administrative Code (NAC) "Uncontrolled - Full Body Contact Expected" reuse water criteria is allowed when approved by the Chief. At a minimum, highly treated effluent reuse water shall meet or exceed a 30-day geometric means which is less than or equal to 2.2 c.f.u. or m.p.n./100 ml, and Max Daily Number less than or equal to 23 c.f.u. or m.p.n./100 ml for Total Coliforms. The applicant shall show that access to an adequate potable water supply or source is not possible to the satisfaction of the Chief. A written "fire suppression water quality assurance plan" shall be submitted and approved by the Chief prior to construction and/or use of highly treated effluent reuse water as a source of water supply for fire hydrants and fire sprinkler systems.

A subsection, designated "507.4 Water supply test," is amended to read as follows:

**507.4 Water supply test.** The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official prior to final approval of the water supply system.

A new subsection, designated "507.4.1 Fire flow test," is deleted in its entirety.

A new subsection, designated "507.4.2 Sprinkler design flow test," is deleted in its entirety.

A subsection, designated "507.5.1.1 Hydrant for fire sprinkler or standpipe systems" is amended to read as follows:

**507.5.1.1 Hydrant for fire sprinkler or standpipe systems.** Buildings equipped with a fire sprinkler or standpipe system installed in accordance with Section 905 shall have a fire hydrant within 100 feet (30 480 mm) of the fire department connections.

**Exception:** The distance shall be permitted to exceed 100 feet (30 480 mm) where approved by the fire code official.

A subsection, designated "507.5.1.2 Locations" is amended to read as follows:

**507.5.1.2 Locations.** Fire hydrants shall be required to be located in accordance with Appendix C, as amended.

A new subsection, designated "507.5.8 Hydrant locks on private hydrants," is amended to read as follows:

**507.5.8 Hydrant locks on private hydrants.** Hydrant locks consisting of KNOX locking caps and/or KNOX plugs are permitted to be installed on private hydrants for the purposes of securing private hydrants to prevent theft of water.

A subsection, designated "510.1.1(1) High-rise buildings" is amended to read as follows:

**1. High-rise buildings.** Buildings with a floor used for human occupancy located more than 55 feet above the lowest level of fire department vehicle access.

A subsection, designated "510.4.2.9 Cable" is amended to read as follows:

**510.4.2.9 Cable**

**510.4.2.9.1** Cable shall be contained in a non-combustible raceway, metal-clad, or fully enclosed cable tray system.

**510.4.2.9.2** Cable shall have a passband of 700-900 MHz.

A subsection, designated "510.6 Maintenance" is amended to read as follows:

**510.6 Maintenance.** The emergency responder radio coverage system shall be maintained operational at all times in accordance with Sections 510.6.1 through 510.6.6.

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A subsection, designated "510.6.6 Fire Department Radios," is amended to read as follows:

**510.6.6 Fire Department Radios.** The owner shall provide the fire department with portable radios in accordance with this section when the emergency responder radio coverage system is installed in a new building. Radios are not required for existing buildings being retrofitted with an emergency responder radio coverage system.

**510.6.6.1 Number of radios.** A minimum of two radios, and no less than one radio for every 1 million square feet of building area, shall be provided to the fire department.

**510.6.6.2 Radio model.** Radios shall be approved by the *fire code official*.

**510.6.6.3 Warranty and ownership transfer.** Warranty and ownership of the radios shall be transferred to the fire department upon successful completion of the acceptance test.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4095, § 6, 4-2-2013; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4261, § 1, 12-2-2014; Ord. No. 4365, § 1, 5-2-2016; Ord. No. 4664, § 1, 1-22-2019; Ord. No. 5064, § 1, 9-5-2023)

### **13.04.100 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.100 which pertained to building services and systems and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.110 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.110 which pertained to interior finish, decorative materials and furnishings and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.115 Fire protection systems.**

A subsection, designated "901.4.3 Fire areas" is added to read as follows.

**901.4.3 Fire areas.** Where buildings, or portions thereof, are divided into fire areas so as not to exceed the limits established for requiring a fire protection system in accordance with this chapter, such fire areas shall be separated by fire barriers constructed in accordance with section 707 of the International Building Code or horizontal assemblies constructed in accordance with section 711 of the International Building Code, or both, having a fire-resistance rating of not less than that determined in accordance with Section 707.3.10 of the International Building Code

Fire area separations for automatic sprinkler systems shall be in accordance with Section 903.2.

A subsection, designated "901.4.6 Pump room size," is amended to read as follows:

**901.4.6 Pump room size.** Where provided, fire pump rooms shall be designed with adequate space (see NFPA 20 for fire pump clearances and NFPA 70 for working space clearances) for all equipment necessary for the installation, as defined by the manufacturer, with sufficient working space around the stationary equipment. Clearances around equipment to elements of permanent construction, including other installed equipment and appliances, shall be sufficient to allow inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly. Fire pump rooms shall be provided with doors and unobstructed passageways large enough to allow removal of the largest piece of equipment.

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A new subsection, designated "901.4.7.8 Lighting," is added to read as follows:

**901.4.7.8 Lighting.** Permanently installed artificial lighting shall be provided in automatic sprinkler system riser rooms.

A subsection, designated "901.6 Inspection, testing and maintenance," is amended to read as follows:

**901.6 Inspection, testing and maintenance.** *Fire protection systems* including fire detection and alarm systems, emergency alarm systems, gas detection systems, fire-extinguishing systems, mechanical smoke exhaust systems and smoke and heat vents shall be maintained in an operative condition at all times, and shall be replaced or repaired where defective. Non-required *fire protection systems* and equipment shall be inspected, tested and maintained or decommissioned. *Fire protection systems* installed as a required system under a previously adopted code shall be maintained in an operative condition at all times, and shall be replaced or repaired where defective. Decommissioning non-required *fire protection systems and fire protection systems* installed as a required system under a previously adopted code requires the *approval* of the *fire code official*. When required, a decommissioning report and/or plans prepared by an *approved* design professional shall be submitted to the *fire code official*.

A subsection, designated "901.7 Systems out of service," is amended to read as follows:

**901.7 Systems out of service.** Where a required fire protection system is out of service, the fire department and the fire code official shall be notified immediately in accordance with Appendix P and, where required by the fire code official, the building shall either be evacuated, provided with other mitigation as required by the fire code official, or an approved fire watch shall be provided for all occupants left unprotected by the shutdown until the fire protection system has been returned to service.

Where utilized, fire watches shall be provided with at least one approved means for notification of the fire department, shall meet the requirements sets forth in Appendix P, and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

In all instances where systems are out of service, either due to a planned or an emergency impairment, fire systems maintenance contractors shall be notified to respond to the site. Fire systems maintenance contractors shall assess the impairment, determine the time needed to execute repairs, and notify the impairment coordinator, and fire department and the fire code official as required by Appendix P, of the repair time needed.

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.

1. For buildings constructed in accordance with the International Building Code, approved automatic sprinklers systems are required where the building area exceeds 5,000 square feet (464 m<sup>2</sup>).
2. For buildings and structures constructed in accordance with the International Residential Code, approved automatic sprinkler systems are required.
3. For any buildings, not otherwise requiring fire sprinklers, where the available fire flow does not meet the fire flow requirements of this code, approved automatic sprinkler systems shall be provided as required by the fire code official.
4. In all occupancies except Group R-3, Group U and occupancies in accordance with the International Residential Code, a building that is more than two stories in height, including any height added by usable floor space, must have an automatic sprinkler system throughout.

**Exceptions:**

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1. Open parking garages with no other occupancy above the open parking garage structure and with fire apparatus lanes immediately adjacent to two open sides of the garage equaling a minimum of 40% of the garage perimeter are not required to be protected with automatic sprinklers.
  2. Automatic sprinklers shall not be required in buildings or structures used exclusively for agricultural, livestock or equestrian activities, with or without spectators, where structures may cover the use, including the spectator area, provided the use is not enclosed on more than one side along any portion of the perimeter of the structure, except for rooms containing code-required building service components, and provided that the minimum clear height along the entire perimeter of the structure is 7 feet 6 inches (2,286 mm).
  3. Buildings, structures, or service equipment and installations directly used in utility generation or distribution which are installed on properly recorded easements belonging to water, gas, power, telephone, or other utility companies that are preemptively regulated by the Nevada Public Service Commission, a State of Nevada charter, or other public franchise. This exception does not apply to non-exempted buildings or structures containing occupiable spaces such as offices, meeting rooms, service counters, public restrooms, or other normally occupied spaces.
  4. Playground shade structures, fuel dispensing canopies, and carports open to a minimum clear height of 10 feet on all sides around the entire perimeter, with non-combustible structural support and frame, with either non-combustible material or fabric complying with NFPA 701 providing shade, located a minimum of 10 feet from the nearest building, property line or shade structure, and less than 10,000 square feet in horizontal area, do not require fire sprinklers.
  5. For new construction expanding an existing unsprinklered Group R-3 occupancy or single-family occupancy built under the IRC, sprinklers are not required to be retrofitted into the building where the building is provided with fire flow in accordance Appendix B.

If any fire area in a building or structure is provided with fire sprinklers, whether required or not, all fire areas in the building or structure shall be provided with fire sprinklers.

**Exceptions:**

1. Where a building is subdivided into separate buildings, each having a total building area of less than 5,000 square feet (464 m<sup>2</sup>), by fire walls with no openings constructed in accordance with the IBC.
2. Special hazard areas that require sprinklers for certain uses, such as medical gas rooms, may be fire sprinklered without requiring additional fire sprinklers, when approved by the code official.
3. Existing buildings modified in accordance with the *International Existing Building Code* or Section 903.7.

A subsection, designated "903.2.8 Group R," is amended to read as follows:

**903.2.8 Group R.** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided through-out all buildings with a Group R *fire area*.

A new subsection, designated "903.2.9.3 Self-service storage facility (mini-storage)," is added to read as follows:

**903.2.9.3 Self-service storage facility (mini-storage).** Self-service storage facilities shall be provided with automatic sprinklers throughout as Ordinary Hazard Group 2 hazard category per NFPA 13.

A subsection, designated "905.5 Location of Class II standpipe hose connections," is amended to read as follows:

**905.5 Location of Class II standpipe hose connections.** Class II standpipe hose connections shall be located where required by Section 905.5.1. Hose connections shall be provided so that all areas described in Section



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905.5.1 are within 30 feet (9144mm) of a nozzle attached to 100 feet (40 480 mm) of hose. Class II standpipe hose connections shall be located where they will have ready access.

A new subsection, designated "907.2.3.1 Locking manual pull stations," is added to read as follows:

**907.2.3.1 Locking manual pull stations.** When buildings are protected throughout by an approved automatic sprinkler system, manual pull stations are allowed to be of the institutional type devices in areas normally occupied by students, subject to the following conditions:

1. Approval of the *fire code official* shall be obtained prior to any conversions or installation. The Key operated devices shall be a listed "institutional" type and not a field modified device.
2. All school staff members shall be trained in the operation of the key operated devices and shall receive a key with obvious markings, for operating the manual pull station. Staff members shall have their key at all times while on school property.
3. The school official shall collect training reports verifying that staff has had training on a quarterly basis and shall be available for review by the *fire code official* upon request.
4. The Fire Department or Prevention Bureau may conduct unannounced drills or training.
5. Unacceptable performance as evaluated by the *fire code official* may result in a requirement to convert the devices back to traditional type.

A subsection, designated "907.5.2.1.1 Average sound pressure," is amended to read as follows:

**907.5.2.1.1 Average sound pressure.** The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (15 dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater, in every occupiable space within the building. The minimum sound pressure levels shall be: 90 dBA in mechanical equipment rooms; and 80 dBA in other occupancies. Audible notification appliances shall be installed in each occupiable space.

**Exceptions:**

1. Laundry rooms, walk-in closets, storage rooms and walk-in coolers/freezers equal to or less than 100 square feet (9.29 m<sup>2</sup>) in floor area.
2. In lieu of showing an audible notification appliance within a specific occupiable space on the plans, calculations may be provided showing that the alarm signals from the adjacent audible appliances will achieve a minimum of 80 decibels inside and throughout that space, where doors or other barriers between the space and the adjacent audibility device(s) are closed. Sound pressure levels shall be measured during system acceptance testing to verify the calculated space achieves a minimum of 80 dBA.
3. In sleeping areas required to be protected with low-frequency alarms, the 80 dBA minimum sound pressure provision is not required where a listed fire alarm device is not available to simultaneously achieve both the low-frequency signal and the 80 dBA minimum sound pressure.

A subsection, designated "907.7.5.2 Supervising (Central) Stations," is deleted in its entirety.

A new subsection, designated "907.9 Inspection, testing and maintenance," is deleted in its entirety.

A subsection, designated "909.16.1 Smoke control systems," is amended to read as follows:

**909.16.1 Smoke control systems.** Fans within the building shall be shown on the fire-fighter's control panel. A clear indication of the direction of airflow and the relationship of components shall be displayed. Status indicators shall be provided for all smoke control equipment, annunciated by fan and zone and by pilot-lamp type indicators as follows:

1. Fans, dampers and other operating equipment in their normal status — GREEN

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2. Fans, dampers, and other operating equipment in their smoke mode status — RED
  3. Fans, dampers and other operating equipment in their ancillary smoke mode status — BLUE
  4. Fans, dampers and other operating equipment in a fault status — YELLOW/AMBER

A subsection, designated "909.16.2 Smoke control panel," is amended to read as follows:

**909.16.2 Smoke control panel.** The firefighter's control panel shall be provided in accordance with Section 909.21.

A subsection, designated "909.16.3 Control action and priorities," is amended to read as follows:

**909.16.3 Control action and priorities.** The firefighter's control panel actions shall be in accordance with Section 909.21.

A subsection, designated "909.20 Maintenance," is amended to read as follows:

**909.20 Maintenance.** Smoke control systems shall be maintained in an operable condition at all times to ensure to a reasonable degree that the system is capable of controlling smoke for the duration required.

Inspection and periodic testing of existing smoke control systems shall be performed in accordance with the Southern Nevada Fire Code Committee's Uniform Guideline for smoke control testing & recertification, the manufacturer's instructions and Sections 909.20.1 through 909.20.5.

**Exception:** Where periodic inspection and testing is conducted in accordance with requirements set forth by the Building Official of the jurisdiction, compliance with the Southern Nevada Fire Code Committee Uniform Guideline is not required.

A subsection, designated "909.21 Smoke control panel design," is added to read as follows:

#### **909.21 Smoke Control Panel Design**

**909.21.1 Scope.** This section applies to Prevention Bureau requirements regarding the design, installation, operation, and approval process for a Firefighter's Smoke Control Panel for Mechanical Smoke Control Systems

**909.21.2 Required items.** The Firefighter Smoke Control Panel shall provide graphics depicting the protected facility and smoke control fan locations. The panel shall provide control switches to allow manual override and control of smoke control systems within the facility. Light Emitting Diodes (LED's) shall be provided on the panel for the purpose of annunciation of smoke control systems, smoke control fans, smoke control dampers, and additional items as described.

**909.21.2.1 Graphic display.** The building layout must be graphically represented to clearly indicate location and boundaries of smoke zones with respect to adjacent areas. All walls and doors comprising the egress system for all smoke control zones must be shown on the graphics layout.

The majority of graphics will be shown on a plan view. An exception is allowed for high-rise buildings having common floor plans and one smoke zone per high-rise floor, where a section view of the tower can be allowed in conjunction with plan views of typical tower floors. At a minimum, the panel must satisfy the following requirements:

1. Show a north directional arrow.
2. Show a building layout at an indicated scale on a contrasting background; black and white are acceptable colors for the graphic outlines and for the panel background.
3. The maximum height of any portion of the panel shall be 7'-0" above the finished floor, and the minimum height of any portion of the panel shall be 2'-6" from the floor.

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4. Include a panel title block, indicating the facility name and address, and the title "Firefighter Smoke Control Panel."
  5. Label each smoke zone area; the label shall include the floor level, i.e., SZ 16-I shall be the first smoke zone on the 16<sup>th</sup> floor. Note: when the floor level above grade is different than the floor designation, provide both numbers; i.e. if the 3<sup>rd</sup> level above grade is designated as level 15 in the elevators; provide both designations on the panel.
  6. Designate between active and passive smoke zones by shading/background.
  7. Show all floor and roof levels for all areas.
  8. Label the locations of the Fire Command Center, Fire Pump, Emergency Generators, elevators providing access to all floor and roof levels, stairs providing access to all floor and roof levels, and Secondary Response Point.
  9. Show the location of all fan units providing smoke control function (both automatic and mop-up fans) and clearly indicate the direction of airflow from each smoke zone to the fan unit protecting that zone. Labels must be provided for each fan and for each opening associated with a fan. Therefore, if there is a fan on the building roof that serves the first level by exhausting air through an opening on the first level, the fan unit, clearly labeled, must be shown on the roof graphic, and the exhaust opening must be shown on the first level, clearly labeled as an exhaust opening associated with the fan.
  10. Label fans with a Hand/Auto switch allowing for manual control at the unit.
  11. Contain LED's as required. LED annunciation is required for each smoke zone (including passive zones utilizing only dampers), each smoke control fan, each group of smoke control dampers/doors, each stair pressurization fan, each elevator pressurization fan, each mop-up system, for "Abnormal Switch Position," and for power. For smoke fans and pressurization fans, the associated LED shall be close to the graphical representation of the fan.
  12. Contain switches for manual control/override of each smoke zone (including passive zones utilizing only dampers), each stair pressurization system, each elevator pressurization system, each mop-up system, and each elevator hoist way vent damper.
  13. Contain a button for lamp test.
  14. Provide a legend for all symbols, including fans, supply/exhaust openings, etc., and for the LED's provided on the panel.

**909.21.2.2 Control switches and buttons.** Manual control switches must be provided at the panel. The switches shall allow for manual activation of smoke control sequences and override of active smoke control sequences. Control switches shall be provided for each individual active and passive smoke zone, for each stair and elevator pressurization system, for mop-up systems, and for elevator hoist way vents.

Control switches shall be adjacent to LED's associated with each switch. Switches shall be three-position, even for dual-mode smoke zones. Each physical position of the control switch shall be labeled, utilizing "smoke mode — auto — off" labels for smoke zones, "press — auto — off" labels for pressurization systems, "manual purge — auto — off" labels for mop-up systems, and "open — auto — close" labels for elevator hoist way vents.

Control switches shall be provided for:

1. Each smoke zone: the switch for the smoke zone is required to have "smoke mode — auto — off" positions labeled. In "smoke mode" the switch is required to activate all smoke control components, including fans, dampers, and doors, that are required to automatically activate to provide the smoke control function, as dictated on the smoke control diagrams. In the "off" position, the switch is required to move all fans and dampers to a "passive" mode by shutting down all fans and closing all

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dampers serving that zone. This switch in the "off" position shall not inhibit any stair pressurization or elevator pressurization systems from activating again under a separate scenario. In the "auto" position, the FACP function is allowed to dictate the status of the smoke control system.

2. Each pressurization system: a switch is required to provide manual control of the fan(s) providing air supply to pressurize an enclosure, such as an egress stair and an elevator machine room. The switch for each pressurization system is required to have "press — auto — off" positions labeled. In "press," the switch will activate all pressurization fans required for the pressurized enclosure. This switch in "press" will override automatic controls, including duct detector shut down of the fan. In the "off" position, the fan must be released from all initiation commands from the FACP; no other activation of a smoke control system by the FACP will override the "off" position and turn the fan back on. In the "auto" position, the FACP function will dictate the fan function.
3. Each mop-up system: the switch for each mop-up system that is only manually activated for mop-up purpose is required to have "manual purge — auto — off" positions labeled. In "manual purge" the switch will activate fans and dampers that are required to configure to achieve the exhaust mode. In the "auto" position, the normal building function will dictate the functioning of all fans and dampers. In the "off" position the switch is required to move all fans and dampers to a "passive" mode by shutting down all fans and closing all dampers serving that zone.
4. Each elevator hoist way vent: the switch for each elevator hoist way vent is required to have "open — auto — close" positions labeled. In "open" the switch will open the elevator hoist way vent dampers. In the "auto" position, the FACP will dictate the status of the vent dampers, with respect to the lobby smoke detectors associated with the hoist way. In the close position the switch is required to move the damper to a "passive" mode by closing the damper.

Switches shall be located on the Firefighter Smoke Control Panel reasonably close to the graphical depiction of the associated area/component. There is no requirement for a separate control switch for a smoke control fan or fire dampers that are part of an automatic sequence.

**909.21.2.3 Annunciation.** Status of smoke control systems and components are required to be indicated on the Firefighter's Smoke Control Panel. Status shall be provided for general conditions, each individual smoke zone, each smoke control fan, each pressurization fan, and all dampers/doors. Status shall be indicated using LED's. Acceptable LED colors are red, yellow, green, and blue. Red-yellow-green LED sets shall be provided for each smoke zone, smoke control fan (including mop-up fans), damper/group of dampers, and each pressurization fan. Dual-mode zones and fans shall be provided with red-yellow-green-blue LED sets.

**909.21.3 General LED Status.** There are general panel status situations that are required to be indicated by LED's. These include whether there is power to the panel, and whether any switch on the panel has been moved from "auto" to another position.

**909.21.3.1 General, yellow:** There shall be a yellow indicator light that will illuminate when any switch on the fire-fighter's smoke control panel has been turned from "auto" or set to any position that will override automatic function of a smoke control system or component. The label adjacent to the yellow LED shall state "Abnormal Switch Position."

**909.21.3.2 General, green:** There shall be a green indicator light that will illuminate to indicate that the Firefighter's Smoke Control Panel is powered. The label adjacent to this green LED shall state "Power On."

**909.21.3.3 LED legend:** A legend of LED's shall be provided. The legend LED shall continuously be lit. The legend shall indicate the following colors and labels:

1. Red LED — Smoke Mode
2. Yellow LED — Trouble
3. Green LED — Normal

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4. Blue LED — Ancillary Smoke Mode (only for dual mode fans and zones)

**909.21.3.4 Smoke Control Components.** LED's are required to indicate status of the smoke control system components. LED's shall be provided for Smoke Zones, Smoke Control Fans, Mop-Up Systems, Smoke Zone Dampers/Doors, Elevator Hoist Way Vents, and Pressurization Systems. All of these shall have red-yellow-green LED sets. Dual-mode zones and fans shall add a blue LED for indication of the ancillary smoke mode.

The various LED's shall operate as follows:

1. Red Only: Shall be illuminated when the FACP or the associated manual switch is activating the smoke control zone and/or components and all components required to activate have been monitored to be in the required position/operation for that scenario.
2. Green Only: Shall be illuminated to indicate normal mode when there is no initiation by the FACP or associated manual switch for the smoke zone and components and all required status for smoke control components indicate that the components are ready for operation.
3. Blue Only: Shall be illuminated when the FACP or the associated manual switch is initiating the smoke control zone and/or components into its ancillary smoke control mode and the monitoring for the fan and dampers required to achieve the ancillary smoke control mode indicates that the system is operating in its required mode. An ancillary smoke control mode means that the smoke zone served by the smoke control system is not in alarm, but the system must configure to support smoke control for another smoke zone that is in alarm.
4. Yellow Only: There shall be no situation where only a yellow LED is illuminated. The yellow LED shall only illuminate in conjunction with a blue LED, red LED or green LED.
5. Red and Yellow: A combination of the red and yellow LED's shall illuminate to indicate that the smoke zone and/or component is being initiated by the FACP or the associated manual switch, and positive status indicating proper configuration of smoke zone components has not been received.
6. Green and Yellow: A combination of green and yellow LED's shall illuminate when a smoke zone is not initiated and the smoke control components do not report normal operating status. For instance, this may occur when a damper is closed due to loss of power, or there is a loss of power required for a smoke control fan.
7. Blue and Yellow: A combination of the blue and yellow LED's shall illuminate to indicate that an auxiliary smoke control sequence is being initiated by the FACP or the associated manual switch, and positive status indicating proper configuration of components for the ancillary smoke control mode has not been received.

**909.21.4 Sequence of operations.** Smoke control sequences shall be programmed such that operation of fans and dampers associated with the smoke control system does not result in physical damage in any smoke control system components.

**909.21.4.1 Multiple configurations.** In no case is the smoke control system required to configure for more than one smoke zone at the same time.

**909.21.4.2 Operation and timing.** Upon automatic activation of a device programmed to initiate a smoke control system, the smoke control system shall automatically configure all smoke control components in a manner to avoid damage to components. All components shall be configured to smoke control status and annunciation of status shall be indicated on the Firefighter Smoke Control Panel within 60 seconds of the initiating alarm being received at the FACP.

**909.21.4.3 Automatic activation.** Under automatic-only activation, the smoke control system shall configure components in the zone where the first device that initiates smoke control is activated.

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**909.21.4.4 Manual activation.** Under manual-only activation, the smoke control system shall configure components to their proper smoke mode operation in the zone associated with the manual switch.

**909.21.4.5 Stacked automatic and manual activations.** For stacking of automatic and manual switch activation, the manual switch shall have override capability over the automatic sequence.

**909.21.4.6 Switch overrides.** Switches for pressurization fans shall not override manual or automatic function for smoke control systems covering areas or zones. Similarly, switches for a smoke zone shall not override manual or automatic function for pressurization fans.

**909.21.5 Approval requirements**

**909.21.5.1 Submittals.** The Fire Prevention Bureau requires a minimum of three copies of plans for all proposed smoke control graphic panels, three copies of narrative describing the sequence and operation for all LED's and switches, and a copy of the approved smoke control diagrams for review.

**909.21.5.2 Plans.** Plans shall be drawn to an indicated scale. Panel drawings must indicate location of switches and LED's against the panel outline.

**909.21.5.3 Narrative.** The narrative shall indicate compliance with this guideline, and describe the initial and override sequence for all buttons and switches shown on the graphic panel. The narrative shall be formatted as an instruction sheet. Copies of the approved narrative shall be laminated and attached to the Firefighter Smoke Control Panel for use by the Fire Department in an emergency. The narrative must describe:

1. General operation of smoke control systems.
2. LED operation for automatic and manual switch sequence of each smoke zone and/or component.
3. Override of control switch for each smoke zone and smoke control component.

**909.21.5.4 Testing.** Testing of the smoke control panel operation must be included in the third-party testing of the smoke control system. Final acceptance by the Fire Prevention Bureau includes approval of the third-party test report and testing of the LED's and control switches at the final All-Systems test.

A subsection, designated "912.1.1 Required Sizes", is amended to read as follows:

**912.1.1 Required sizes.** *Automatic sprinkler systems* with a demand of up to 500 gpm shall be installed with a siamese with two 2½-inch. (65 mm) inlets. *Automatic sprinkler systems* with a demand greater than 500 gpm and an inlet pressure requirement not exceeding 150 psi shall be installed with a single, thread-less coupling consisting of one 5-inch (130 mm) Storz brand locking connection with a 30-45 degree downward deflection. When the system demand exceeds 150 psi, the system shall include one 2½-inch (65 mm) inlet per every 250 gpm (956 L/min) demand. Modifications or alternate designs shall be *approved by the fire code official*.

Fire department connection piping shall be a minimum of 4-inch (100 mm) for three or fewer inlets, a minimum of 6 in (150 mm) for four or more inlets or a Storz inlet and shall have a diameter equal or greater to the largest supply main.

A subsection, designated "912.2.2.3 Installation on Buildings," is deleted in its entirety.

A subsection, designated "914.3.1 Automatic sprinkler system," is amended to read as follows:

**914.3.1 Automatic sprinkler system.** Buildings and structures shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 and a secondary water supply where required by Section 914.3.2.

**Exception:** An *automatic sprinkler system* shall not be required in *open parking garages* in accordance with Section 406.5 of the International Building Code, where there is no other occupancy above the open parking garage structure and where fire apparatus lanes are immediately adjacent to two open sides of the garage equaling a minimum of 40% of the garage perimeter.

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A new subsection, designated "918 Smoke Removal," is amended to read as follows:

**SECTION 918  
SMOKE REMOVAL**

**918.1 General.** Where required by this code or otherwise installed, smoke removal systems shall conform to the requirements of this section and the Building Code.

**918.2 Where Required.**

**918.2.1 High rise buildings.** Smoke removal systems shall be installed in accordance with the Building Code.

**918.3 Status Indicators and Controls.**

**918.3.1 Scope.** This section applies to Fire Prevention Bureau requirements regarding the design, installation, operation, and approval for a Firefighter Smoke Removal Panel.

**Exception.** Upon approval of the *fire code official*, the control panel for the smoke removal system shall be permitted to operate through the building HVAC management system or the fire alarm system.

**918.3.2 Required items.** The Firefighter Smoke Removal Panel shall be located within the Fire Command Center and shall provide graphics depicting the protected facility and smoke removal fan locations. The panel shall provide control switches that allow smoke removal fans to activate. Light emitting diodes (LED) shall be provided on the panel for the purpose of annunciation of smoke removal fans. The control panel for the smoke removal system shall not be required to be listed as smoke control equipment.

**918.3.2.1 Graphic display.** The building layout must be graphically represented to clearly indicate location and boundaries of smoke removal zones with respect to adjacent areas. All walls and doors comprising the egress system for all smoke removal zones must be shown on the graphics layout.

The majority of graphics will be shown on a plan view. An exception is allowed for high-rise buildings having common floor plans and one smoke removal zone per high-rise floor, where a section view of the tower can be allowed in conjunction with plan views of typical tower floors. At a minimum, the panel must satisfy the following requirements:

1. Show a north directional arrow.
2. Show a building layout at an indicated scale on a contrasting background: black and white are acceptable colors for the graphic outlines and for the panel background.
3. The maximum height of any portion of the panel shall be 7'-0" above the finished floor, and the minimum height of any portion of the panel shall be 2'-6" from the floor.
4. Include a panel title block, indicating the facility name and address, and the title "Firefighter Smoke Removal Panel."
5. Label each smoke removal area; the label shall include the floor level, i.e., SRZ 16-1 shall be the first smoke removal zone on the 16<sup>th</sup> floor. Note: when the floor level above grade is different than the floor designation, provide both numbers; i.e. if the 3<sup>rd</sup> level above grade is designated as level 15 in the elevators; provide both designations on the panel.
6. Designate between smoke removal zones and areas that do not have smoke removal capabilities.
7. Show all floor and roof levels for all areas.
8. Label the locations of the Fire Command Center, fire pump, emergency generators, elevators providing access to all floor and roof levels, stairs providing access to all floor and roof levels, and the Secondary Response Point location.

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9. Show the location of all fan units providing smoke removal functions. Labels must be provided for each fan and for each opening associated with a fan. Therefore, if there is a fan on the building roof that serves the first level by exhausting air through an opening on the first level, the fan unit, clearly labeled, must be shown on the roof graphic, and the exhaust opening must be shown on the first level, clearly labeled as an exhaust opening associated with the fan.
  10. Label the fans with a Hand/Auto switch allowing manual control at the unit.
  11. Contain LED's as required. LED annunciation is required for each smoke removal fan for each smoke removal zone, for "Abnormal Switch Position," and for power. For smoke removal fans, the associated LED shall be close to the graphical representation of the fan.
  12. Contain switches for manual control/override of each smoke removal zone (including passive zones utilizing only dampers).
  13. Contain a button for lamp test.
  14. Provide a legend for all symbols, including fans, supply/exhaust openings, etc., and for LED's provided on the panel.

**918.3.2.2 Control switches and buttons.** Manual control switches must be provided at the panel. Control switches shall be provided for each individual smoke removal zone and for each elevator hoist way vent. Control switches shall be adjacent to the LED associated with each switch. Switches shall be three-position and shall be labeled as "manual purge — auto — off" for smoke removal systems.

Switches found on the Firefighter Smoke Removal Panel shall be located reasonably close to the graphical depiction of the associated area/component.

Each smoke removal system: the switch for each smoke removal system that is only manually activated for mop-up purposes is required to have "manual purge — auto — off" positions labeled. In "manual purge" the switch will activate fans and dampers that are required to achieve the exhaust mode. In the "auto" position, the normal building function will dictate the functioning of all fans and dampers. In the "off" position the switch is required to move all fans and dampers to a "passive" mode by shutting down all fans and closing all dampers serving that zone.

**918.3.2.3 Annunciation.** Status of smoke removal system fans are required to be indicated on the Firefighter's Smoke Removal Panel. Status shall be indicated using LED's. Acceptable colors are red, yellow, and green. Red-yellow-green LED sets shall be provided for each smoke removal zone.

**918.3.3 General LED status.** There are general panel status situations that are required to be indicated by LED's. These include whether there is power to the panel, and whether any switch on the panel has been moved from "auto" to another position.

**918.3.3.1 General, yellow.** There shall be a yellow indicator light that will illuminate when any switch on the Firefighter Smoke Removal Panel has been turned from "auto" or set to any position that will override automatic function of the normal building functions.

**918.3.3.2 General, green.** There shall be a green indicator light that will illuminate to indicate that the firefighter's smoke removal panel is powered. The label adjacent to this green LED shall state "Power On."

**918.3.3.3 LED legend.** A legend of LED's shall be provided. The legend LED shall continuously be lit. The legend shall indicate the following colors and labels:

1. Red LED: Smoke Removal Mode
2. Yellow LED: Trouble
3. Green LED: Normal



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**918.3.4 Smoke removal components.** LED's are required to indicate status of the smoke removal system fans. The various LED's shall operate as follows:

1. Red Only: Shall be illuminated when the associated manual switch has activated the smoke removal zone fans and the fans have been confirmed to be in the proper configuration.
2. Green Only: Shall be illuminated to indicate normal mode when there is no initiation by a manual switch for a smoke removal zone to indicate that the fans are ready for operation.
3. Yellow Only: There shall be no situation where only a yellow LED is illuminated. The yellow LED shall only illuminate in conjunction with a red LED or green LED.
4. Red and Yellow: A combination of the red and yellow LED's shall illuminate to indicate that the smoke removal zone is being initiated by the manual switch, and positive status indicating proper configuration of smoke removal fans has not been received.
5. Green and Yellow: A combination of green and yellow LED's shall illuminate when a smoke removal zone is not initiated and the smoke removal fans do not report normal operating status. For instance, this may occur when there is a loss of power required for a smoke removal fan.

**918.3.5 Multiple configurations.** In no case is the smoke removal system required to configure for more than two adjacent smoke removal zones at a time.

**918.3.6 Operation and timing.** All components shall be configured to smoke removal status and annunciation of status of smoke removal fans shall be indicated on the Firefighter Smoke Removal Panel within 90 seconds of the initiation of the smoke removal switch.

**918.3.7 Approval requirements.**

**918.3.7.1 Submittals.** The Fire Prevention Bureau requires a minimum of three copies of plans for all proposed smoke removal panels, three copies of a narrative describing the sequence of operations for all LED's and switches, and a copy of the approved smoke removal system control diagrams for review.

**918.3.7.2 Plans.** Plans shall be drawn to an indicated scale. Panel drawings must indicate the locations of the switches and the LED's against the panel outline.

**918.3.7.3 Narrative.** The narrative shall indicate compliance with this code section, and shall describe all operations of the panel. The narrative shall be formatted as an instruction sheet. Copies of the approved narrative shall be laminated and attached to the Firefighter Smoke Removal Panel for use by the Fire Department for smoke removal functions. The narrative must describe:

1. General operation of the smoke removal systems and related switches.
2. LED indications for the various situations.

**918.3.8 Testing.** The testing of the Firefighter Smoke Removal Panel operation must be included in the third-party testing of the smoke removal system. Final acceptance by the Fire Prevention Bureau includes approval of the third-party test report and testing of the LED and control switches at the final All-Systems test.

**918.4 System Acceptance.** Buildings, or portions thereof required by this code to comply with this section shall not be issued a certificate of occupancy until such time that the *fire code official* determines that the provisions of this section have been fully complied with and that the fire department has received satisfactory instruction on the operation of the system.

**Exception:** In buildings of phased construction, a temporary certificate of occupancy, as *approved* by the *fire code official*, shall be allowed, provided that those portions of the building to be occupied meet the requirements of this section and that the remainder does not pose a significant hazard to the safety of the proposed occupants or adjacent buildings.

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**918.5 Maintenance.** Smoke removal systems shall be maintained in an operable condition at all times to ensure to a reasonable degree that the system is capable of removing smoke when required.

Inspection and periodic testing of smoke removal systems shall be performed in accordance with the Southern Nevada Fire Code Committee's Uniform Guideline for smoke control testing & recertification using a Level I inspection firm, and the manufacturer's instructions.

**Exception:** Where periodic inspection and testing is conducted in accordance with requirements set forth by the Building Official of the jurisdiction, compliance with the Southern Nevada Fire Code Committee Uniform Guideline is not required.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4095, § 7, 4-2-2013; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4261, § 1, 12-2-2014; Ord. No. 4314, § 1, 7-21-2015; Ord. No. 4664, § 1, 1-22-2019; Ord. No. 5064, § 1, 9-5-2023)

### **13.04.120 Means of egress.**

A subsection, designated "1028.15 Carnivals and fairs," is deleted in its entirety.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019)

### **13.04.138 Aviation Facilities.**

A subsection, designated "2007.1 General" is amended to read as follows:

**2007.1 General.** All helistops and heliports shall be designed and constructed in accordance with this code, NFPA 418, and FAA AC No:150/5390-2C. Helistops and heliports shall be maintained in accordance with Section 2007.2 through 2007.9. Helistops and heliports on buildings shall be constructed in accordance with the International Building Code.

(Ord. No. 4664, § 1, 1-22-2019)

### **13.04.140 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.140 which pertained to fire safety during construction and demolition and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.145 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.145 which pertained to flammable finishes and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.175 Lumber yards and agro-industrial, solid biomass and woodworking facilities.**

A subsection, designated "2810.6 Clearance to property line," is amended to read as follows:

**2810.6 Clearance to property line.** Stacks of pallets shall not be stored within a distance equal to the stack height or 8 feet (2438 mm) of the property line, whichever is greater, or shall comply with Section 2810.11

A subsection, designated "2810.7 Clearance to important buildings and other on-site storage," is amended to read as follows:

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**2810.7 Clearance to important buildings and other on-site storage.** Stacks of pallets shall not be stored within 15 feet (4572 mm) of any important building or other storage on site, or shall comply with Section 2810.11.

A subsection, designated "2810.8 Height and stack arrangement," is amended to read as follows:

**2810.8 Height and stack arrangement.** Pallet stacks shall comply with height and stack arrangement requirements of Section 2810.8.1 through 2810.8.5

**2810.8.1 Height.** Pallet stacks shall not exceed 15 feet (4572 mm) or any height restriction set by other ordinances of the jurisdiction, whichever is lower in height.

**2810.8.2 Individual stack area.** Individual pallet stacks shall cover an area not greater than 400 square feet (37 m<sup>2</sup>).

**2810.8.3 Individual stack separation.** Individual pallet stacks shall be separated by a minimum distance of 8 feet (2440 mm)

**2810.8.4 Stack arrays.** Individual pallet stacks are to be organized into stack arrays having a maximum dimension of 50 feet by 50 feet (15 240 mm by 15 240 mm).

**2810.8.5 Stack array separation.** Pallet storage arrays shall be separated by a minimum distance of 24 feet (7315 mm).

A subsection, designated "2810.9 Fire flow, fire hydrants and fire department access," is amended to read as follows:

**2810.9 Fire flow, fire hydrants and fire department access.** Fire flow, fire hydrants and fire department access shall be in accordance with Section 2810.9.1 through 2810.9.3.

**2810.9.1 Fire flow.** The minimum required fire flow in pallet storage yards shall not be less than 2,000 gpm (7571 L/m). For storage yards with stable piles greater than 6,200 square feet (576 m<sup>2</sup>) the required fire flow will follow the requirements of Appendix B, Table B105.1 for Type V-B construction. Pallet storage yards shall not exceed the available fire hydrant flow and spacing.

**2810.9.2 Fire Hydrants.** Fire hydrants required for fire flow purposes for pallet storage array(s) shall be provided within 300 feet (91 440 mm) of hose lay to all pallets.

**2810.9.3 Fire Department Access.** Fire apparatus access roads in accordance with Section 503 shall be located within 150 feet (45 720 mm) of all portions of the pallet storage array(s). Permanent delineation of on-site fire apparatus access roads shall be provided as required by the *fire code official*.

(Ord. No. 4664, § 1, 1-22-2019)

### **13.04.180 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.180 which pertained to motor fuel-dispensing facilities and repair garages and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.185 Industrial ovens.**

A subsection, designated "3006.1 Required Protection," is amended to read as follows:

**3006.1 Required protection.** Class A and B ovens which contain, or are utilized for the processing of, combustible materials shall be protected by an approved automatic fire-extinguishing system complying with Chapter 9.

**Exception:** Protection is not required for furnaces and ovens where the operation cannot create an area in which the concentration of flammable constituents (vapor, gas, fume, mist or dust) in air exceeds 25 percent of their lower flammable limit (LFL).

A subsection, designated "3006.2 Fixed fire-extinguishing systems," is amended to read as follows:

**3006.2 Fixed fire-extinguishing systems.** Fixed fire-extinguishing systems shall be provided for Class C or D ovens to protect against such hazards as overheating, spillage of molten salts or metals, quench tanks, ignition of hydraulic oil and escape of fuel. It shall be the user's responsibility to consult with the fire code official concerning the necessary requirements for such protection.

**Exception:** Protection is not required for furnaces and ovens where the operation cannot create an area in which the concentration of flammable constituents (vapor, gas, fume, mist or dust) in air exceeds 25 percent of their lower flammable limit (LFL).

(Ord. No. 4664, § 1, 1-22-2019)

### 13.04.190 Tents, Temporary Special Event Structures and other Membrane Structures.

A subsection, designated "3109.9 Structural stability and anchorage required," is amended to read as follows:

**3103.9 Structural stability and anchorage required.** Tents or membrane structures and their appurtenances shall be designed and installed to withstand the elements of weather and prevent collapsing. Documentation of structural stability shall be furnished to the fire code official.

**3103.9.1 Structural requirements.** Tents and membrane structures, exceeding one story, or an occupant load of 1,000 or greater, or floor area of 7,500 square feet or greater, shall be designed and constructed to comply with Sections 1606 through 1608 of the International Building Code. Tent and membrane structures shall comply with Table 3103.9.1 for wind loads. Conformance to these code sections for structural stability and anchorage shall be documented by a Nevada-licensed structural engineer. Where a tent is intended to be re-used multiple times, a single structural analysis is permitted, provided the single analysis incorporates the worst-case soil and location conditions within the design. Such single structural analysis is only accepted during the current code edition, and expires when a new code is adopted.

**Exceptions:**

1. Tents and membrane structures installed for 180 consecutive days or more shall comply with Section 1609 of the International Building Code for wind loads
2. Special event structures complying with Section 3105.

**Table 3103.9.1  
Minimum Design Wind Loads and Documentation**

	Duration of Exposure in days <sup>a</sup>	1-7	8-30	31-179
Occupant Load	Floor Area (sq ft)	Minimum Design Wind Speed (mph) <sup>b, c</sup>		
1,000 - 4,999	7,500 or greater	77	83	89
5,000 or greater	All	83	89	Per IBC 1609
All	Exceeding one story	83	89	Per IBC 1609

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- a. Duration of occupancy except installation and/or removal unless on the same day
  - b. Minimum design wind speed for ASCE 7 wind pressure for Occupancy Category II
  - c. Wind speed 3 second gust at 33 ft elevation for Exposure C.

**3103.9.2 Other tents and membrane structures.** Tents and membrane structures that do not exceed one story, 7,500 square feet, or 1,000 occupant load, are permitted to document structural stability by means of conforming to manufacturer installation instructions. Analysis by a Nevada-licensed engineer is not required.

A subsection, designated "3105.2 Approvals" is amended to read as follows:

**3105.2 Approvals.** Temporary special event structures in excess of 2,500 square feet (232m<sup>2</sup>) shall not be erected, operated or maintained for any purpose without first obtaining approval and a permit from the fire code official and the building official

**Exceptions:** This section is not applicable when a temporary special event structure is constructed within a building or structure that has a current Certificate of Occupancy; or is required to be permitted under Clark County Code 22.02.065.

(Ord. No. 4811, § 1, 10-6-2020)

### **13.04.200 Fire safety during construction and demolition.**

A subsection, designated "3310.2 Key Boxes," is added to read as follows.

**3310.2 Key boxes.** Key boxes shall be required as provided by Chapter 5.

A subsection, designated "3318 Asbestos Removal," is deleted in its entirety.

(Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019)

### **13.04.205 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.205 which pertained to hazardous materials—general provisions and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.220 Industrial ovens.**

A subsection, designated "3006.1 Required Protection," is deleted in its entirety.

A subsection, designated "3006.2 Fixed fire-extinguishing systems," is deleted in its entirety.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019)

### **13.04.230 Hazardous materials—General provisions.**

A subsection, designated "5001.2.2.2 Health hazards," is amended to read as follows:

**5001.2.2.2 Health hazards.** The material categories listed in this section are classified as *health hazards*. A material with a primary classification as a *health hazard* can also pose a *physical hazard*.

1. Highly toxic and toxic materials.
2. Corrosive materials.

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3. Radioactive materials.

A subsection, designated "5001.4 Retail and wholesale storage and display," is added to read as follows:

**5001.4 Retail and wholesale storage and display.** For retail and wholesale storage and display of nonflammable solid and nonflammable or noncombustible liquid hazardous material in Group M occupancies and storage in Group S occupancies, see Sections 5002 and 5003.11.

A subsection, designated "5001.5.1 Hazardous Materials Management Plan," is amended to read as follows:

**5001.5.1 Hazardous Materials Management Plan.** Where required by the *fire code official* or when the Maximum Allowable Quantity per control area is exceeded, an application for a permit shall include a Hazardous Material Management Plan (HMMP). The HMMP shall include a facility site plan designating the following:

1. Access to each storage and use area.
2. Location of emergency equipment.
3. Location of where liaison will meet emergency responders.
4. Facility evacuation meeting point locations.
5. The general purpose of other areas within the building.
6. Location of all above-ground and underground tanks and their appurtenances including, but not limited to, sumps, vaults, below-grade treatment systems and piping.
7. The hazard classes in each area.
8. Locations of all control areas and Group H occupancies.
9. Emergency exits.

A subsection, designated "5001.5.2 Hazardous Materials Inventory Statement (HMIS)," is amended to read as follows:

**5001.5.2 Hazardous Materials Inventory Statement (HMIS).** Where required by the *fire code official*, an application for a permit shall include an HMIS, such as Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Tier II Report or other *approved* statement. The HMIS shall include the following information:

1. Product Name.
2. Component.
3. Chemical Abstract Service (CAS) number.
4. Location where stored or used.
5. Container size.
6. Hazard Classification.
7. Amount in Storage.
8. Amount in *use-closed systems*.
9. Amount in *use-open systems*.
10. Aggregate quantities per control area.
11. Site plan/Floor plan with designated control areas and details of 704 placard for facility and for each control area.
12. Sprinkler design criteria, if sprinklered.

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13. Cabinets or exhausted enclosures.

14. NFPA 704 hazard numbers.

A subsection, designated "5002.1 Definitions," is amended to add a definition for radioactive materials as follows:

**RADIOACTIVE MATERIALS.** Materials which emit alpha or beta particles, gamma rays or neutrons and are regulated by the Nuclear Regulatory Commission or by the Nevada State Health Division Radiation Control.

A subsection, designated "5002.1 Definitions," is amended to add a new definition for RETAIL AND WHOLESale as follows:

**RETAIL AND WHOLESale.** The sale of new or used goods to: consumers; retailers; industrial, commercial, institutional or professional users: or to other wholesalers

A subsection, designated "5003.5 Hazard identification signs," is amended to read as follows:

**5003.5 Hazard identification signs.** Unless otherwise exempted by the *fire code official*, visible hazard identification signs as specified in NFPA 704 for the specific material contained shall be placed on stationary containers and above-ground tanks and at entrances to locations where hazardous materials are stored, dispensed, used or handled in quantities requiring a permit and at specific entrances and locations designated by the *fire code official*.

**5003.5.1 Signage Rating Method.** Where more than one chemical is present in a building or specific area, signs shall be provided using one of the following methods:

(1) *Composite Method.* Where many chemicals are present, a single sign shall summarize the maximum ratings contributed by the material(s) in each category and the special hazard category for the building and/or the area.

(2) *Individual Method.* Where only a few chemicals are present or where only a few chemicals are of concern to emergency responders (taking into account factors including physical form, hazard rating, and quantity), individual signs shall be displayed. The chemical name shall be displayed below each sign.

(3) *Composite-Individual Combined Method.* A single sign shall be used to summarize the ratings via the Composite method for buildings or other numerous chemicals. Signs based on the individual Method shall be used for rooms or smaller area within the building containing small numbers of chemicals.

**5003.5.2 Markings.** Individual containers, cartons, or packages shall be conspicuously marked or labeled in an approved manner. Rooms or cabinets containing compressed gases shall be conspicuously labeled: COMPRESSED GAS.

A subsection, designated "5003.8.8 Hazardous Materials Information Storage," is deleted in its entirety.

A subsection, designated "5003.11," is amended to read as follows:

**5003.11 Retail and wholesale Group M storage and display and retail and wholesale Group S storage.** The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials allowed within a single *control area* of a retail and wholesale Group M display and storage occupancy, or an outdoor *control area*, or stored in a single *control area* of a retail and wholesale Group S storage occupancy, is allowed to exceed the *maximum allowable quantities per control area* indicated in Section 5003.1 when in accordance with Sections 5003.11.1 through 5003.11.3.10.

A subsection, designated "5006 Radioactive Materials," is added to read as follows:

**SECTION 5006  
RADIOACTIVE MATERIALS**

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**5006.1 General.** Use and handling of permissible quantities of radioactive materials shall be in accordance with this chapter.

**5006.2 Permit trigger amounts.** To store or handle at any installation any amount of radioactive material for which a specific license from the Nuclear Regulatory Commission and/or Nevada State Health Division Radiation Control is required.

**5006.3 Permit submittals.** Permit submittals shall include the items listed in Section 5006.3.1 through 5006.3.3.

**5006.3.1 Location.** A plan view of building showing location(s) of permissible quantities of radioactive materials.

**5006.3.2 Quantity and type.** Total quantities of radioactive materials, reported in Curies, with the type of emitter (alpha, beta, gamma, neutron) identified.

**5006.3.3 Certifications.** A copy of the facility's Nuclear Regulatory Commission License and a copy of the facility's Nevada State Health Division Radiation Control License.

(Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019)

### **13.04.235 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.235 which pertained to explosives and fireworks and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010 and Ord. No. 4095, § 8, adopted April, 2, 2013.

### **13.04.240 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.240 which pertained to flammable and combustible liquids and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.245 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.245 which pertained to limitations on flammable and combustible liquids and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.260 Explosives and fireworks.**

A subsection, designated "5601.2.2 Sale and retail display," is amended to read as follows:

**5601.2.2 Sale and retail display.** All retail sales and retail displays of fireworks and explosives are prohibited.

**Exception:** Consumer fireworks 1.4G (safe and sane) offered for sale at portable retail fireworks stands that are in accordance with the current "Southern Nevada Fire Chiefs Association Approved Guidelines for Fireworks."

A subsection, designated "5601.2.4 Financial Responsibility," is amended to read as follows:



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**5601.2.4 Financial Responsibility.** Before a permit is issued, as required by Section 5601.2, the applicant shall file with the jurisdiction a valid certificate of insurance complying with Section 105.1.4.1 in the amount of \$5,000,000.00 for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The *fire code official* is authorized to specify a greater amount when, in his or her opinion, conditions at the location of use indicate a greater amount is required.

A subsection, designated "5608.2.1 Outdoor fireworks displays," is amended to read as follows:

**5608.2.1 Outdoor fireworks displays.** In addition to the requirements for firewatch personnel, public safety plan and crowd managers and other requirements of Section 403, permit applications for outdoor fireworks display using Division 1.3G fireworks shall include a diagram of the location at which the fireworks display will be conducted, including the site from which firework will be discharged; location of buildings, highways, overhead obstructions and utilities; and the lines behind which the audience will be restrained. Displays fired on rooftops shall comply with Chapter 7 of NFPA 1123 and Clark County Fire Prevention Bureau guideline *Fire Safety and Risk Analysis Requirements for Rooftop Fireworks Displays*.

A subsection, designated "5608.3.1 Weather conditions," is added to read as follows:

**5608.3.1 Weather conditions.** Weather conditions including, but not limited to, excessive wind speed shall constitute the basis for canceling the display. The wind measurement locations shall not be shielded by shelters, parapets, roof features, etc.

A subsection, designated "5608.3.2 Wind speeds," is added to read as follows:

**5608.3.2 Wind speeds.** At the discretion of the fire code official, a ground-launched fireworks display may be canceled when wind is blowing in excess of fifteen miles per hour. Rooftop-launched fireworks display may be canceled when the wind exceeds ten miles per hour if, in the opinion of the fire code official, an aerial display might be hazardous to property or endanger any person. Wind speed shall be measured from the fireworks display site.

A subsection, designated "5608.4 Clearance," is amended to read as follows:

**5608.4 Clearance.** Spectators, spectator parking areas and dwellings, buildings, membrane structures, cabanas, tents or structures shall not be located within the display site or fallout area.

**Exceptions:**

1. This provision shall not apply to pyrotechnic special effects and fireworks displays using Division 1.4.G materials before a *proximate audience* in accordance with NFPA 1126.
2. This provision shall not apply to unoccupied *dwellings*, buildings and structures with approval of the building owner and the *fire code official*.

A subsection, designated "5608.4.1 Clearance (fallout area)," is added to read as follows:

**5608.4.1 Clearance (fallout areas).** Fallout areas shall be in accordance with NFPA 1123.

A subsection, designated "5608.4.2 Ground pieces," is added to read as follows:

**5608.4.2 Ground pieces.** Ground pieces shall be located not less than 150 feet from spectators, vehicles, tents, canopies or membrane structures.

A subsection, designated "5608.11 Seizure of fireworks," is added to read as follows:

**5608.11 Seizure of fireworks.** It shall be unlawful to possess, use, explode, offer, display for sale, hold or store any and all fireworks in violation of this section. Upon finding unlawful fireworks, the fire chief, building official, or police chief or their representative shall seize, take, remove or cause to be removed such unlawful fireworks and destroy said unlawful fireworks at the expense of the owner.

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A subsection, designated "5608.12 Penalty for violation," is amended to read as follows:

**5608.12 Penalty for violation.** Any person operating or maintaining any occupancy, premises or vehicle subject to this regulation who shall permit any hazard to exist on premises under his control or who shall fail to take immediate action to abate a hazard when ordered or notified to do so by fire chief, the building official, or police chief, or a duly authorized representative, shall be guilty of a misdemeanor, and upon conviction thereof, be punished by a fine of not more than one thousand dollars and/or imprisonment in the county jail for not more than six months, or any combination of such fine and imprisonment. Every day of such violation shall constitute a separate offense.

**5608.13 Administrative Citations.** Any person violating any of the provisions, or failing to comply with any of the requirements, of Title 13 Chapter 13.04.260 of this Code, may be issued a civil administrative citation by the fire chief, building official or police chief or their designated representative authorized to issue misdemeanor citations, or other civil notices, for such violations. The fines schedule for such administrative citation shall be as follows:

- (a) For a first violation, a fine not exceeding two hundred fifty dollars plus costs including, but not limited to, disposal costs;
- (b) For subsequent offences within one year of the first offense, a fine not exceeding five hundred dollars plus costs including, but not limited to, disposal costs;

A subsection, designated "5614 Administrative Procedures," is amended to read as follows:

**5608.14 Administrative Procedures.** The Administrative Procedures outlined in Title 1, Chapter 1.14.020-1.14.030 shall be the same procedures applicable to Chapter 13.04.260. The administrative provisions outlined in Title 1, Chapter 1.14.040-1.14.130 which refer to the "Chief of Code Enforcement" shall be replaced with "Building Official."

A subsection, designated "5609 Consumer Fireworks," is amended to read as follows:

**SECTION 5609  
CONSUMER FIREWORKS**

**5609.1 General.** Storage, distribution and sales of consumer fireworks shall be in accordance Section 5609, The Southern Nevada Fire Chiefs Association Approved Guideline (written by the Southern Nevada Consumer Fireworks Code Committee) for Consumer Fireworks, and the currently adopted edition of NFPA 1124.

**5609.1.1 Permit required.** Permit shall be required in accordance with 105.6 and the Southern Nevada Fire Chiefs Association Approved Guideline for Fireworks.

**5609.1.2 Seizure of fireworks.** It shall be unlawful to possess, use, explode, offer, display for sale, hold or store any and all fireworks in violation of this section. Upon finding unlawful fireworks, the fire chief, building official, fire code official or police chief or their representative shall seize, take, remove or cause to be removed such unlawful fireworks and destroy said unlawful fireworks at the expense of the owner or distribute to the wholesalers for further handling.

**5609.1.3 Penalty for violation.** Any person operating or maintaining any occupancy, premises or vehicle subject to this regulation who shall permit any hazard to exist on premises under his control or who shall fail to take immediate action to abate a hazard when ordered or notified to do so by the fire chief, building official, or police chief, or his duly authorized representative, shall be guilty of a misdemeanor, and upon conviction thereof, be punished by a fine of not more than one thousand dollars and/or imprisonment in the county jail for not more than six months, or any combination of such fine and imprisonment. Every day of such violation shall constitute a separate offense. In addition, a disposal fee may be assessed to the party from which illegal fireworks are seized.

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**5609.1.4 Civil Penalty.** Any person violating any of the provisions, or failing to comply with any of the requirements, of Title 13 Section 13.04.260 of this code, may be issued a civil penalty by the fire chief building official or police chief or their designated representative authorized to issue misdemeanor citations, or other civil notices, for such violations. The civil penalty shall be as follows:

- (a) If the gross weight of the fireworks, including the packaging is less than 100 pounds the civil penalty shall be;
  - (1) \$500 plus costs including, but not limited, to disposal costs for the first violation; and
  - (2) \$1,000 plus costs including, but not limited, to disposal costs for a second violation within three (3) years.
- (b) If the gross weight of the fireworks, including the packaging is more than 100 pounds but less 5,000 pounds than the civil penalty shall be \$5,000 plus costs including, but not limited to, disposal costs.
- (c) If the gross weight of the fireworks, including the packaging is more than 5,000 pounds than the civil penalty shall be \$10,000 plus costs including, but not limited to, disposal costs.

The civil penalties assessed in this section shall not be imposed against a person who has been issued a license or permit under Title 13.04 to sell or distribute fireworks nor can they be imposed against a child under the age of eighteen (18) unless the child is emancipated.

**5609.1.5 Administrative Procedures.** The Administrative Procedures outlined in Title 1, Chapter 1.14.020-1.14.030 shall be the same procedures applicable to Chapter 13.04.260. The administrative provisions outlined in Title 1, Chapter 1.14.040-1.14.130 which refer to the "Chief of Code Enforcement" shall be replaced with "Building Official."

**5609.2 Storage.** Where the temporary storage of consumer fireworks, 1.4G is allowed by Section 5601.1.3, Exception 4, such storage shall comply with applicable requirements of NFPA 1124 and currently adopted codes.

**5609.2.1 Storage for Wholesale Consumer Fireworks.** The storage building/location shall comply with the currently adopted building and fire codes and NFPA 1124. It shall be inaccessible to the public. Wholesale storage locations shall be approved by the fire code official.

**5609.2.2 Storage for Retail Consumer Fireworks.** Retail consumer fireworks shall be stored at an approved location inside or on the fireworks sales stand or stand premises in an approved manner when supervised by an adult that is awake and alert at all times. Storage locations shall be approved by the fire code official.

**5609.2.3 No Smoking signs.** No smoking signs shall be posted at all storage locations. No smoking signs with 3-inch tall letters shall be posted on all four sides of the storage container or fireworks stand/booth. Signs shall be bilingual (English/Spanish) and shall be painted or stenciled on the stand/booth. The international symbol for "no smoking" can be stenciled above the exit doors on the exterior or on the exit doors of the stand/booth so if the doors are open the required sign is still displayed.

**5609.3 Safe and Sane consumer fireworks.** All fireworks products for consumer fireworks sales shall be tested (including re-tests) per Section 5609.4 by April 30<sup>th</sup> each year prior to the date of sale.

**5609.3.1 Labels.** All fireworks for consumer sales shall bear the California State Fire Marshal's Safe and Sane seal/label. Each item or case of small items or item box shall bear the seal/label.

**5609.3.2 Packaging.** Retailers shall display and sell consumer fireworks as they are intended and required to be sold per the wholesaler.

**5609.3.3 Fireworks Construction.** The construction and composition of consumer fireworks shall comply with the currently adopted edition of the American Pyrotechnics Association Standard 87-1, and Standard for Construction and Approval for Transportation of Fireworks, Novelties and Theatrical Pyrotechnics. See Annex C of NFPA 1124.

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**5609.4 Fire Prevention Bureau requirements before Testing and Approval.** All consumer fireworks products shall be tested and certified by an approved, independent third party testing agency for compliance with the regulation of the Consumer Products Safety Commission (CPSC) as set forth in 16 CFR 1500 and 1505. Wholesalers shall have copies of the test reports shall be available for review.

**5609.4.1 Fire Prevention Bureau Testing.** Each wholesaler shall provide the Clark County Fire Prevention Bureau with a complete inventory list of individual products and packages for sale to consumers at least 90-days in advance of the first day of sale. Testing shall be in accordance with the Southern Nevada Fire Chiefs Association Approved Guideline for Consumer Fireworks. Items that do not pass testing will not be permitted for sale.

**5609.4.2 Test Method.** Each product selected for testing shall be tested according to the Southern Nevada Fire Chiefs Association Approved Guideline for Consumer Fireworks. The pass/fail criteria will be according to these documents. Additionally, no product shall exhibit re-ignition, burn-out or prolonged burning within thirty (30) minutes after the termination of the primary effect produced by the device.

**5609.5 Dangerous fireworks.** It shall be unlawful for any person to possess, store, to offer for sale, expose for sale, sell at wholesale or retail, or use or explode any dangerous fireworks in the unincorporated towns of Clark County, Nevada. "Dangerous fireworks" include, but are not limited to, the following:

1. Fireworks that contain prohibited chemicals per NFPA 1124;
2. Firecrackers, salutes and other articles which explode;
3. Fireworks that fire an aerial display;
4. Skyrockets and rockets, including all devices which employ any combustible or explosive material and which rise in the air during discharge;
5. Roman candles, including all devices which discharge balls of fire into the air;
6. Sparklers more than ten inches in length or one-fourth inch in diameter;
- 7 All fireworks designed and intended by the manufacturer to create the element of surprise upon the user. These items include but are not limited to auto foolers, cigarette loads, exploding balls, trick matches;
8. Fireworks known as devil-on-the-walk, or any other fireworks which explode through means of friction;
9. Torpedoes of all kinds which explode on impact;
- 10 Fireworks kits;
11. Devices that travel a distance exceeding a 10 feet radius.
12. Such other fireworks examined and tested, witnessed by the Southern Nevada Consumer Fireworks Code Committee. Fire Chief or Police Chief and determined to possess characteristics of design or construction which make such fireworks unsafe for use by any person not specially qualified or trained in the use of fireworks.

**5609.6 Fireworks Stands/Booths.** Fireworks stands/booths shall be constructed, arranged and have construction and operational features noted in Sections 5609.6.1 through 5609.6.5 and the Southern Nevada Fire Chiefs Association Approved Guideline.

**5609.6.1 Operations:** Fireworks stands/booths shall be operated from June 28 to July 4 of every calendar year.

**5609.6.1.1** Fireworks shall be returned to an approved wholesalers storage location at the end of each sales day unless the stand/booth is approved for 24 hour sales. There shall be no storage in other locations including, but not limited to, residential neighborhoods, dwellings, garages, public ways, driveways, trailers, or vehicles.

**5609.6.2 Certificate of Insurance:** The permittee shall furnish a certificate of insurance for hazard coverage of up to \$1,000,000 or greater as specified by the Fire Prevention Bureau.

**5609.6.3 Personnel:** Fireworks stands/booths shall be operated by two people and there shall be at least one adult, 18 years or older, and not be occupied by anyone under the age of 16.

**5609.6.4 Construction of Fireworks Stands/Booths:** Each fireworks stand shall be constructed as follows:

1. No stand/booth shall exceed 33 feet in length or 10 feet in width.
2. All stands shall have no less than two unobstructed exits measuring a minimum of 6 feet tall and 2 feet in width. The counter shall not be considered an exit.
3. The siding and roof of the booths shall be made of a minimum of ¼-inch plywood or comparable material or of noncombustible materials.
4. All wiring and appliances shall meet the requirements of the National Electrical Code and be protected from damage.
5. Overhead wiring powering fireworks stands/booths shall be a minimum of 13 feet, 6 inches above grade.
6. Trailers used as fireworks stands/booths may be used when approved.

**5609.6.5 Fire safety features.** Each fireworks stand/booth shall have the following fire safety features;

1. A fully-charged mounted fire extinguisher rated at least 2A 10BC. The fire extinguisher shall be tagged by a contractor licensed by the Nevada State Fire Marshal.
2. "No Smoking" signs shall be posted at all storage locations. No smoking signs with 3-inch tall letters shall be posted on all four sides of the storage container or fireworks stand/booth. Signs shall be bilingual (English/Spanish) and shall be painted or stenciled on the stand/booth. The international symbol for "no smoking" can be stenciled above the exit doors on the exterior or on the exit doors of the stand/booth so if the doors are open the required sign is still displayed.
3. Clear space between the fireworks stand/booth and exposures as noted in Table 5609.6.5:

**Table 5609.6.5  
Minimum Separation Distance from sales stand**

10 feet	20 feet	30 Feet	50 feet
Combustibles (other than dry grass, dry brush, and combustible debris)	Buildings	Dry grass	Motor vehicle fuel dispensers
Vehicle Parking	Fireworks storage	Dry Brush	Propane dispensers
Curb of edge of roadway, street or driveway	Other fireworks stands/booths (permitted to be reduced to 5 feet where the aggregate area of such stands/booths does not exceed 800 square feet.) (74 m <sup>2</sup> )	Combustible Debris	Compressed natural gas dispensing
Water/air dispenser at service stations	Underground storage tank fill port		Aboveground storage tanks for flammable or combustible liquids, flammable compressed gases including propane.
	Tents		

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**5609.7 Ignition of fireworks—Hazardous locations.** Ignition of fireworks shall not take place within 300 feet of a fireworks booth, gasoline service station buildings, gasoline dispensers, flammable or combustible liquid tank fill or vent lines, aboveground flammable or combustible liquid tanks, or any building, structure or vehicle containing unsealed flammable or combustible liquids, hazardous materials or explosives.

**5609.7.1 Ignition of Fireworks—General Prohibition.** Ignition of fireworks shall take place so as to not endanger persons, buildings, structures, property, brush, automotive vehicles and/or equipment, etc.

**5609.7.2 Ignition of Fireworks—Prohibited dates.** Ignition of fireworks shall not take place before the 1<sup>st</sup> day of July or after the 4th day of July of each sales year.

**5609.8 Orientation Meetings.** The fire code official shall hold at least two (2) orientation meetings. These meetings shall be completed before May 25 and shall be to review applicable code requirements and The Southern Nevada Fire Chiefs Association Approved Guideline for Consumer Fireworks. Each organization running one or more fireworks stands shall attend at least one meeting. Any representative can attend for all stand/booth locations for one organization. If there are more than 3 stands/booths per organization, 2 representatives shall attend the orientation and 1 person per every 3 stand/booths thereafter. Any representative can be available for the inspection of the fireworks stand/booth on the day and time listed on the orientation form.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-14-2013; Ord. No. 4594, § 1, 6-19-2018; Ord. No. 4664, § 1, 1-22-2019; Ord. No. 4779, § 1, 5-19-2020; Ord. No. 4918, § 1, 2-15-2022)

### **13.04.300 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.300 which pertained to construction requirements for existing buildings and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.305 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.305 which pertained to reference standards and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.310 Modified NFPA standards.**

A new section, designated "8001 Modified NFPA Standards," is added to read as follows:

**8001 Modified NFPA Standards.** Standards promulgated by the National Fire Protection Association (NFPA) and modified herein are hereby adopted by reference. NFPA standards are available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02269-9101.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-14-2013; Ord. No. 4664, § 1, 1-22-2019)

### **13.04.320 Reserved.**

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Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.320 which pertained to NFPA 10 and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.330 NFPA 13.**

A subsection, designated "8001.1 NFPA 13, Standard for the Installation of Fire Sprinklers," is amended to read as follows:

**8001.1 NFPA 13, Standard for the Installation of Fire Sprinklers.** NFPA 13-2016 is available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02269-9101. The National Fire Protection Association Standard for the Installation of Fire Sprinklers is hereby adopted by reference with the following modifications:

Section 8.2.6 of NFPA 13 is deleted in its entirety.

Section 8.15.8.1.1.1 of NFPA 13 is added to read as follows:

**8.15.8.1.1.1** Sprinkler protection shall not be required in separate rooms that contain solely a toilet fixture, that contain no counters, shelving, closet doors, or other fixtures, and that have a maximum area of 55 ft<sup>2</sup> (5.1 m<sup>2</sup>). Such rooms shall be surrounded by walls and doors that completely enclose the room.

Section 8.15.28 of NFPA 13 is amended to read as follows:

**8.15.28 Openings in Rated Assemblies.** Where sprinkler protection is serving as the alternative to opening protection in rated assemblies, such sprinklers shall be listed for use, and installed in accordance with their listing. These sprinklers shall be a separate sprinkler system, and shall be controlled, monitored, and supplied independently of the overhead system(s).

Section 8.16.4.1.4 of NFPA 13 is added as follows:

**8.16.4.1.4** Listed heat-tracing systems shall be permitted in accordance with 8.16.4.1.4.1 and 8.16.4.1.4.2.

Section 8.16.4.1.4.1 of NFPA 13 is added as follows:

**8.16.4.1.4.1** Where used to protect branch lines, the heat-tracing system shall be specifically listed for use on branch lines.

Section 8.16.4.1.4.2 of NFPA 13 is added as follows:

**8.16.4.1.4.2** Electric supervision of the heat-tracing system shall provide positive confirmation that the circuit is energized.

Section 10.1.2 of NFPA 13 is amended to read as follows:

**10.1.2\*** All piping used in private fire service mains shall be rated for the maximum system working pressure to which the piping is exposed but shall not be rated at less than 150 psi (10 bar). When the underground piping can be supplied or pressurized by a fire pump or a Fire Department Connection (FDC), the underground piping shall be designed to withstand a working pressure of not less than 200 psi (Class 305), or 50 psi greater than the FDC design pressure, whichever is greater.

Section 10.2.2 of NFPA 13 is amended to read as follows:

**10.2.2** All fittings used in private fire service mains shall be rated for the maximum system working pressure to which the fittings are exposed, but shall not be rated at less than 150 psi (10 bar). When the underground piping can be supplied or pressurized by a fire pump or a Fire Department Connection (FDC), the underground piping shall be designed to withstand a working pressure of not less than 200 psi (Class 305), or 50 psi greater than the FDC design pressure, whichever is greater.

Section 11.3.1.1 of NFPA 13 is amended to read as follows:

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**11.3.1.1** The design area shall be in accordance with either 11.2.3.2 or 11.2.3.3.

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.

Section 23.1.3.1 of NFPA 13 is added to read as follows:

**23.1.3.1** General Notes shall be added to the plans to provide clarity of design. The plans shall contain the following general note narratives:

- (1) Describe the scope of work that is covered by permit. Indicate where sprinklers are being provided and for what purpose. For permits where the scope of work is only over a portion of a facility, the area of work shall be marked by a boundary line that is labeled "Scope of Work," and the narrative shall address this situation.
- (2) Provide a general description of building use and associated occupancy classification per NFPA 13 for all building areas
- (3) Indicate whether area is designed for storage. If the sprinkler system is being designed to accommodate storage, indicate the commodity storage height, storage configuration (rack, solid-pile, etc.), aisle width between racks as applicable, commodity classification per NFPA 13, and whether commodity is encapsulated.
- (4) Indicate the manufacturer, schedule, and type of branch line piping
- (5) Indicate the manufacturer, schedule, and type of main piping
- (6) Indicate the manufacturer, schedule, and type of fittings and couplings
- (7) Indicate the manufacturer, schedule, and type of underground piping
- (8) Indicate the manufacturer, model number and type of water meter assembly
- (9) Indicate the type of freeze protection provided (i.e. building heated to 40°F at all times, dry system, etc.)
- (10) Indicate the maximum system pressure for each riser/system, and indicate the minimum pressure required for the hydrostatic test of each riser/system.
- (11) Indicate the maximum sprinkler deflector distance below the roof deck
- (12) Indicate the type of construction, whether combustible or non-combustible
- (13) Indicate whether there are any combustible concealed spaces. Indicate how combustible concealed spaces are protected.
- (14) Indicate whether construction is classified as unobstructed or obstructed construction
- (15) Indicate the ceiling flatness and material. Indicate whether the ceiling is horizontal and flat, or it has a slope, has soffits, or other variations in ceiling height. For all instances of soffits and other variations of ceiling height, refer to details for each instance shown on the plan. Indicate whether ceiling materials consist of thin combustible membranes, such as stretch plastic or fabric. Any installation under a thin combustible membrane shall be accompanied by an approved engineering analysis.
- (16) Indicate whether central station is required.
- (17) Indicate the location of the sprinkler head box, and indicate that the room where the box is located is conditioned to 100 degrees F or less.

Section 24.2.1.11 of NFPA 13 is amended to read as follows:



**24.2.1.11** When pressure testing in CPVC piping and fittings, the sprinkler system shall be slowly filled with water and the air bled from the highest and farthest sprinkler heads before pressure testing is applied. Air or compressed gas must never be used for pressure testing of CPVC piping and fittings.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019; Ord. No. 5064, § 1, 9-5-2023)

**13.04.340 NFPA 13D.**

A new subsection, designated "8001.2 NFPA 13D, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes," is added to read as follows:

**8001.2 NFPA 13D, Standard for the Installation of Sprinkler Systems in One-and Two-Family Dwellings and Manufactured Homes.** NFPA 13D-2016 is available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02269-9101. The National Fire Protection Association Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes is hereby adopted by reference with the following modifications:

Section 4.2.3 of NFPA 13D is amended to read as follows:

**4.2.3** When pressure testing in CPVC piping and fittings, the sprinkler system shall be slowly filled with water and the air bled from the highest and farthest sprinkler heads before pressure testing is applied. Air or compressed gas must never be used for pressure testing of CPVC piping and fittings.

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:

**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 IRC<sup>4</sup>**

Fire Lane Distance per IFC 503.1.1	Building Area SIZE RANGE <sup>6</sup>	Mitigation Residential SYSTEM TYPE <sup>1,3</sup>	SEPARATE SPRINKLER LEAD-IN REQUIRED <sup>5</sup>	MINIMUM UNDER-GROUND PIPE SIZE <sup>5</sup>	MINIMUM WATER METER SIZE <sup>7</sup>	SPRINKLERS REQUIRED IN AREAS SUBJECT TO FREEZING
<350 ft	<10,000 sq. ft.	Enhanced NFPA 13D <sup>1, 2</sup>	No	1"	¾"	No
	>10,000 sq. ft.	Enhanced NFPA 13D 4 hd calculation 1, 2, 8	No	1.5"	1"	No
>350 ft	Any size	Enhanced NFPA 13D 4 hd calculation 1, 2, 8	No	1.5"	1"	No

N/A 1= Not Applicable

This mitigation constitutes a building "protected with an approved fire sprinkler system" per the IFC.

2. ;hg;Domestic demand of 5 gpm is required to be added to the sprinkler demand in the hydraulic calculations.

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3. ;hg;Free-standing detached buildings with one or more sleeping rooms shall be protected by a minimum Enhanced NFPA 13D system.
  4. ;hg;Excluding Group Care Homes
  5. ;hg;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. ;hg;Building area is defined as all areas under roof except for porches patios balconies, carports and porte cocheres.
  7. ;hg;Water meters used for residential sprinkler systems shall be residential fire service meters or other meters approved by the water purveyor.
  8. ;hg;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 combustible 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:

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.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 5064, § 1, 9-5-2023)

### **13.04.350 NFPA 13R.**

A new subsection, designated "8001.3 NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height," is added to read as follows:

**8001.3 NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height.** NFPA 13R-2016 is available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02269-9101. The National Fire Protection

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Association Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height is hereby adopted by reference with the following modifications:

Section 5.2.2 of NFPA 13R is amended to read as follows:

**5.2.2** Pipe or tube used in sprinkler systems shall be of the materials specified in Table 5.2.2 or shall be in accordance with 5.2.3. Piping shall have corrosion resistance ratio (CRR) of 1 or more.

Section 6.7.2.2.1 of NFPA 13R is added to read as follows:

**6.7.2.2.1** Where listed heat tracing systems are used, they shall be supervised.

Section 6.7.2.2.1.1 of NFPA 13R is added to read as follows:

**6.7.2.2.1.1** Electric supervision of the heat tracing system shall provide positive confirmation that the circuit is energized.

Section 6.7.2.2.2 of NFPA 13R is added to read as follows:

**6.7.2.2.2.** Where listed heat tracing is utilized for branch lines, it shall be specifically listed for use on branch lines.

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

Section 10.2.2.3 of NFPA 13R is amended to read as follows:

**10.2.2.3** When pressure testing in CPVC piping and fittings, the sprinkler system shall be slowly filled with water and the air bled from the highest and farthest sprinkler heads before pressure testing is applied. Air or compressed gas must never be used for pressure testing of CPVC piping and fittings.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019; Ord. No. 5064, § 1, 9-5-2023)

### **13.04.360 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.360 which pertained to NFPA 14 and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.370 NFPA 20.**

A new subsection, designated "8001.4 NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection," is added to read as follows:

**8001.4 NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection.** NFPA 20-2016 is available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02269-9101. The National Fire Protection Association Standard for the Installation of Stationary Pumps for Fire Protection is hereby adopted by reference with the following modifications:

Section 4.2.1.1 of NFPA 20 is added to read as follows:

**4.2.1.1** A fire pump for fire protection shall be selected to operate at less than or equal to 110 percent of the rated capacity

Section 4.8.1 of NFPA 20 is amended to read as follows:

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**4.8.1** A centrifugal fire pump for fire protection shall be selected so that the greatest single demand for any fire protection system connected to the pump is less than or equal to 110 percent of the rated capacity (flow) of the pump.

Section 9.3.1 of NFPA 20 is amended to read as follows:

**9.3.1** Unless there is an installed power arrangement described in 9.3.3, at least one alternative source of power shall be provided.

Section 9.3.4 of NFPA 20 is amended to read as follows:

**9.3.4** Where provided, the alternate source of power shall be supplied from one of the following sources:

(1) A generator installed in accordance with section 9.6

(2) One of the sources identified in 9.2.2(1), 9.2.2(2), 9.2.2(3), or 9.2.2(5) where the power is provided independent of the normal source of power. Any connection to the public utility shall be considered a single source of power and subsequently cannot be utilized as both normal power and the alternate (backup) power.

(3) Design of temporary portable generator with generator plug, transfer switch, and wiring to service back-up power to electric driver. The design shall indicate the minimum required size of the temporary portable generator. The manual transfer switch shall be sized to connect the prescribed temporary portable generator to the fire pump. The switch shall be shown on the approved electrical plans and a copy submitted with the electric fire pump submittal. Written instructions on the set-up of the temporary portable generator, including plug and use of the transfer switch, shall be left with the owner. The time limit from loss of power to installation of the temporary portable generator is a maximum of 2 hours.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019)

### **13.04.380 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.380 which pertained to NFPA 22 and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.390 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.390 which pertained to NFPA 24 and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.410 NFPA 72.**

A new subsection, designated "8001.5 NFPA 72, National Fire Alarm Code," is added to read as follows:

**8001.5 NFPA 72, National Fire Alarm Code.** NFPA 72-2016 is available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02269-9101. The National Fire Protection Association National Fire Alarm Code is hereby adopted by reference.

(Ord. No. 4261, § 1, 12-2-2014; Ord. No. 4664, § 1, 1-22-2019)

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Editor's note(s)—Prior to the reenactment of § 13.04.410 by Ord. No. 4261, said section was repealed by Ord. No. 4129, § 1, adopted Sept. 17, 2013. The former § 13.04.410 pertained to similar subject matter and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.420 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.420 which pertained to NFPA 86 and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### **13.04.430 NFPA 160.**

A new subsection, designated "8001.6 NFPA 160, Standard for the Use of Flame Effects Before an Audience," is added as follows:

**8001.6 NFPA 160, Standard for the Use of Flame Effects Before an Audience.** NFPA 160-2016 is available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02269-9101. The National Fire Protection Association Standard for the Use of Flame Effects Before an Audience is hereby adopted by reference with the following modifications:

Section 7.1.6 of NFPA 160 is added as follows:

**7.1.6** The separation distance between the flame effect and the audience shall be such that the incident thermal radiation received does not exceed that calculated by the following equation:

$$T = [35 / q] ^ 1.33$$

Where:

T= time in seconds

q = incident thermal flux in kW/ m<sup>2</sup>

The value of q can also be taken from Figure A7.1 of NFPA 160.

When applying the preceding equation to an effect with a duration of 4 seconds or less, the time used in calculating the maximum acceptable level of incident thermal flux shall correspond to the root mean squared (RMS) value of the peak incident thermal flux.

The incident radiation should not cause the surface temperature of the exposed skin of a member of the audience to exceed 111° F ( 44.0) °C. Incident radiation shall be measured with a radiometer. Skin temperature may also be measured with an infrared surface temperature thermometer or other equivalent means.

Section 8.1.3 of NFPA 160 is added as follows:

**8.1.3** The operator shall be licensed in accordance with NRS 477 and NAC 477.

(Ord. No. 4664, § 1, 1-22-2019)

### **13.04.440 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.440 which pertained to NFPA 385 and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

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### 13.04.450 Reserved.

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.450 which pertained to NFPA 407 and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### 13.04.460 NFPA 1123.

A subsection, designated "8001.7 NFPA 1123, Code for Fireworks Display," is added as follows:

**8001.7 NFPA 1123, Code for Fireworks Display.** NFPA 1123-2018 is available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02269-9101. The National Fire Protection Association Code for Fireworks Display is hereby adopted by reference with the following modifications:

Section 10.1.4 of NFPA 1123 is added as follows:

**10.1.4** The operator shall be licensed in accordance with NRS 477 and NAC 477.

(Ord. No. 4664, § 1, 1-22-2019)

### 13.04.470 NFPA 1126.

A subsection, designated "8001.8 NFPA 1126, Standard for the Use of Pyrotechnics before a Proximate Audience," is added as follows:

**8001.8 NFPA 1126, Standard for the Use of Pyrotechnics before a Proximate Audience.** NFPA 1126-2016 is available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02269-9101. The National Fire Protection Association Standard for the Use of Pyrotechnics before a Proximate Audience is hereby adopted by reference with the following modifications:

Section 6.5.1.3 of NFPA 1126 is added as follows:

**6.5.1.3** The operator shall be licensed in accordance with NRS 477 and NAC 477.

Section 8.1.6.3 of NFPA 1126 is added as follows:

**8.1.6.3** Indoor pyrotechnic display's shall only be permitted in venues provided with automatic fire sprinklers throughout.

(Ord. No. 4664, § 1, 1-22-2019)

### 13.04.480 NFPA 2001.

A subsection, designated "8001.9 NFPA 2001 Standard on Clean Agent Fire Extinguishing Systems," is added as follows:

**8001.9 NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems.** NFPA 2001-2015 is available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02269-9101. The National Fire Protection Association Standard on Clean Agent Fire Extinguishing Systems is hereby adopted by reference with the following modifications:

Section 5.3.7 of NFPA 2001 is added as follows:

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**5.3.7** The protected enclosure shall have the structural strength and integrity necessary to contain the agent discharge. If the developed pressures present a threat to the structural strength of the enclosure, venting shall be provided to prevent excessive pressures. Designers shall consult system manufacturer's recommended procedures relative to enclosure venting. [For pressure relief vent area or equivalent leakage area, see 5.1.2.2(28)]. For clean agent systems that utilize inert gases as the extinguishing agent, a licensed engineer shall provide a report which includes the pressure relief vent area calculations and includes the design of the overall ventilation system serving the enclosure(s) in order to ensure that the ventilation system will prevent over-pressurization and potential structural damage to the enclosure(s).

(Ord. No. 4664, § 1, 1-22-2019)

### **13.04.510 Appendix B Fire-Flow Requirements for Buildings.**

A subsection, designated "B102.1 Definitions," is amended to read as follows:

**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 (m<sup>2</sup>), used to determine the required fire flow.

**RURAL AREA.** For commercial and multi-unit residential buildings, an area that is more than 1 mile (1.6 km) from public water systems capable of providing the required fire flow. For detached single-family dwellings, an area that is more than 1,000 feet (304.8 m) from public water systems capable of providing the required fire flow.

A subsection, designated "B103.1 Decreases" is amended to read as follows:

**B103.1 Decreases.** The fire chief 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, in accordance with B103.1.1 through B103.1.3.

A subsection, designated "B103.1.1 Buildings Less than 2,000 sq ft (186m<sup>2</sup>)" is added to read as follows:

**B103.1.1 Buildings Less than 2,000 sq ft (186 m<sup>2</sup>).** For buildings other than Group A, E, H and I occupancies less than 2,000 sq ft (186m<sup>2</sup>) in area, fire-flow is not required where the building is a minimum of 30 feet from all real and assumed property lines to property with an existing structure or that can be built upon. Group A, E, H and I buildings located a minimum of 30 feet from all real and assumed property lines are permitted to be protected with fire sprinklers in lieu of fire flow.

**Exception:** For detached single-family buildings, the building must be a minimum of 10 feet from all real and assumed property lines to property with an existing structure or that can be built upon.

A subsection, designated "B103.1.2 buildings 2,000 sq ft (186 m<sup>2</sup>) or greater that do not otherwise Require Fire Sprinklers," is added to read as follows:

**B103.1.2 Buildings 2,000 sq ft (186 m<sup>2</sup>) or Greater that do not otherwise Require Fire Sprinklers.** For buildings 2,000 sq ft (186 m<sup>2</sup>) or greater where fire sprinklers are not otherwise required, the installation of fire sprinklers in accordance with this code shall be allowed to provide protection in lieu of fire-flow, where the building is a minimum of 30 feet from all real and assumed property lines to property with an existing structure or that can be built upon.

**Exception:** For detached single-family buildings, the building must be a minimum of 10 feet from all real and assumed property lines to property with an existing structure or that can be built upon.

A subsection, designated "B103.1.3 Buildings that require Fire Sprinklers," is added to read as follows:

**B103.1.3 Buildings that require Fire Sprinklers.** Where fire sprinklers are otherwise required, on-site fire flow shall be provided without decrease in minimum required flow or duration.

**Exception:** For detached single family buildings that are required to be sprinklered and are less than 5,000 sq ft, fire flow is not required.

A subsection, designated "Table B105.1(1) Required Fire Flow for One- And Two-Family Dwellings, Group R-3 and R-4 Buildings and Townhouses" is amended to read as follows:

**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	With or without an 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
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>	½ value in Table B105.1(2) <sup>a</sup>	1

For SI: 1 square foot = 0.0929 m<sup>2</sup>, 1 gallon per minute = 3.785 L/m.

a. The reduced fire flow shall be not less than 1,000 gallons per minute.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019)

**13.04.515 Appendix C fire hydrant locations and distribution.**

A subsection, designated "Appendix C Fire Hydrant Locations and Distribution" is amended to read as follows:

**Appendix C Fire Hydrant Locations and Distribution  
Section C101  
General**

**C101.1 Scope.** Fire hydrants shall be provided in accordance with this appendix for the protection of buildings, or portions of buildings, as required by Section 507. Design shall comply with the Clark County



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Uniform Design and Construction Standards (UDACS) for public installations or NFPA 24 for private installations, as applicable.

## **Section C102**

### **Location**

**C102.1 Fire hydrant locations.** Fire hydrants shall be provided along required fire apparatus access roads

**C102.2 Intersections.** The spacing of fire hydrants shall start by placing fire hydrants at all intersections.

**C102.3 R-3 Occupancies and single-family dwellings built under the IRC.** In all residential areas (R-3 occupancies and single-family dwellings built under the IRC only), hydrants shall be spaced not to exceed 500 feet, or 600 feet if all homes are protected by approved automatic fire sprinkler systems.

**C102.4 Distance from Hydrant to R-3 Occupancy and single-family dwelling built under the IRC.** The maximum distance from a one- or two-family dwelling to a fire hydrant shall not exceed 300 feet, as measured from an approved point on a street or road frontage to a fire hydrant. An approved point is defined as the property line furthest from the hydrant, at a right angle to the street.

**C102.5 Commercial and Residential Occupancies other than R-3 and single-family dwelling built under the IRC.** In all commercial and industrial areas, including multi-family R-1 and R-2 occupancies, hydrants shall be spaced not to exceed 300 feet, or 400 feet if all buildings are protected by approved automatic sprinkler systems.

**C102.6 Commercial and Residential Occupancies other than R-3 and single-family dwelling built under the IRC, Distance to Dead-End Street.** The maximum distance from a hydrant to the end of a dead-end street shall not exceed 200 feet.

**C102.7 Distance to a Fire Department Connection (FDC).** The maximum distance from a fire hydrant to a fire department connection (FDC) supplying fire sprinklers and/or standpipes shall not exceed 100 feet, as measured by an approved route. An approved route is defined as an unobstructed path of travel on which hose can easily be laid.

**C102.8 Spacing Along Major Streets.** Where streets are provided with median dividers, or have four or more travel lanes and a traffic count of more than 30,000 vehicles per day, hydrants shall be spaced at a maximum of 1,000 feet along both sides of the street; arranged on an alternating basis at 500-foot intervals.

**C102.9 Hydrants Provided with New Water Mains.** Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide water for transportation hazards

**C102.11 Hydrant Clearances from Structures.** A 3-foot clear space shall be maintained around the circumference of fire hydrants.

**C102.12 Hydrant set-back from curbs.** Fire hydrants shall be located 4 feet to 7 feet from the back of curb. Where it is not possible to locate the hydrant a minimum of 4 feet from the back of the curb, or where curbs are not provided, the hydrant shall be protected against vehicular impact in accordance with Section 312.

**C102.13 Hydrant Pad.** A concrete pad, with minimum dimensions of 3 feet by 3 feet, with a minimum depth of 10 inches, reinforced with a minimum of one (1) No. 4 rebar, shall be provided at each fire hydrant.

## **Section C103**

### **Approved Fire Hydrants**

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**C103.1 Scope.** Hydrants that are proposed for installation in public water systems shall be in accordance with approved fire hydrants as allowed by the water purveyor. Hydrants proposed for installation on private water systems shall be in accordance with approved fire hydrants as allowed by Fire Prevention.

#### **Section C104**

##### **Supply and Underground Mains**

**C104.1 Supply points.** Two sources of water supply are required whenever 4 or more fire hydrants and/or sprinkler lead-ins are installed on a single system.

**C104.2 Sectional Control Valves.** Sectional control valves shall be installed so that no more than 2 fire hydrants and/or 2 sprinkler lead-ins can be out of service due to a break in a water main.

**C104.3 Minimum Size of Line.** Supply lines feeding fire hydrants shall have a minimum diameter of 6 inches, with a dead-end maximum length of 150 feet of 6-inch underground pipe supplying only one hydrant.

**C104.4 Pressure Rating.** Underground piping shall have a minimum working pressure of 150 psi. Underground piping connected to a fire pump or a Fire Department Connection (FDC) shall have a minimum working pressure of 200 psi.

**C104.5 Restraint.** All underground water lines shall be restrained in accordance with applicable codes and standards.

**C104.6 Listings.** All on-site underground water mains and materials shall be U.L. listed, A.W.W.A. compliant, and shall be rated for the appropriate working pressure.

#### **Section C105**

##### **Satisfying Fire Flow Requirements**

##### **(in Accordance with Appendix B)**

**C105.1 Minimum number of hydrants.** The minimum number of fire hydrants required to meet the fire flow shall be based on a maximum flow of 1,000 gallons per minute per hydrant. All hydrants utilized in providing the fire flow shall be within 750 feet of the structure being protected as measured along the street or approved fire apparatus access road.

**Exception:** In unincorporated Clark County and the City of Las Vegas the maximum flow per hydrant shall be 1,500 gallons per minute.

**C105.2 Hydrants on adjacent properties.** Fire hydrants on adjacent properties shall not be considered unless fire apparatus access roads extend between properties and recorded easements are established.

#### **Section C106**

##### **Construction Operations**

**C106.1 Construction Hydrants.** Hydrants shall be provided for construction in accordance with Section 3312.

**C106.2 Placing hydrant out of service.** If during construction it becomes necessary to close any control valve or place a hydrant out of service, approval shall be obtained from Fire Prevention prior to placing the hydrant out of service.

#### **Section C107**

##### **Hydrant Markings**

**C107.1 Hydrant Markings.** Hydrants shall be painted safety yellow for public and safety red for private, shall have their location marked in the adjacent fire access lane by a blue reflective pavement marker and shall

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have red painted curbs 15 feet in each direction. Where curbs are not provided, paint shall be applied along the roadside for 15 feet in each direction. Hydrant markings shall be in accordance with Section 507.

**C107.2 Hydrant Marking Maintenance.** Hydrant marking shall be maintained in accordance with Section 507.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4095, § 9, 4-2-2013; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4365, § 1, 5-2-2016)

### **13.04.520 Appendix D Civil Improvement Plans.**

A subsection, "Appendix D Fire Apparatus Access Roads," is deleted in its entirety, and replaced with "Appendix D Civil Improvement Plans" as follows:

#### **APPENDIX D**

**D101 Civil Engineering Plans for Water Supply and Fire Department Access.** Civil engineering plans shall follow the requirements of D102 through D105.

**D102 Civil Engineering Plans.** Plans must include the following information:

1. Vicinity map indicating major cross streets adjacent to project, as well as, actual project location.
2. Fire Department General Notes must be provided on plans. These are:

#### **GENERAL NOTES**

##### **GENERAL:**

- a. All work shall be done in strict accordance with the Clark County Fire Code as amended, the Uniform Design and Construction Standards (UDACS) as adopted by Clark County and the currently adopted Edition of NFPA 24.
- b. Fire hydrants and water supplies for fire protection shall be installed, inspected by Fire Prevention and in service prior to and during the time of construction in accordance with Section 3312 of the IFC, as amended. Fire hydrants shall be within 300 feet of combustible materials.
- c. If during construction it becomes necessary to close any control valve or place a hydrant out of service, approval shall be obtained from the Clark County Fire Prevention prior to placing the hydrant out of service.

##### **FIRE HYDRANTS:**

- a. Fire hydrants shall be installed in accordance with the most current edition of UDACS. NFPA 24 and this guideline. Fire hydrants shall be maintained in accordance with NFPA 25 and kept in an operative condition with the required water supply.
- b. Manufacturer and model of fire hydrants shall conform to the approved materials list of the water purveyor.
- c. Hydrants shall be installed with their pumper outlet nozzle (steamer connection) facing the fire access road. A 3-foot clear space shall be maintained around the circumference of fire hydrants. Where hydrants are subject to impact by motor vehicles, guard posts (pipe bollards) shall be installed in accordance with Section 312.
- d. Public hydrants shall be painted safety yellow and private hydrants shall be painted red.
- e. Fire hydrants shall be located 4 to 7 feet from back of curb.

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f. Painting of curbs and/or asphalt areas adjacent to hydrants shall be completed by the installer prior to bond release inspection. A coat of exterior industrial grade safety red enamel shall be applied for a minimum of 30 feet (15 feet on each side of the hydrant).

g. Hydrant locations shall be marked by means of a blue reflective pavement marker installed in the center of the fire access drive lane nearest to the hydrant.

**FIRE DEPARTMENT CONNECTIONS:**

a. Fire department connections shall be located within 100 feet of a fire hydrant as measured by an approved unobstructed route. An approved route is defined as an unobstructed path of travel on which hose can easily be laid.

b. Fire department connections shall be located on the street side of buildings or facing approved fire apparatus access roads, fully visible and recognizable from the street, fire apparatus road or nearest point of fire department vehicle access or as otherwise approved by the fire code official.

c. Fire department connections shall not be closer than 3 feet to any door or window opening and shall not be obstructed by trees, shrubs, parking spaces, etc.

d. Fire Department connections shall be located not less than 18 inches and not more than 48 inches above the level of the adjacent grade or access level.

**UNDERGROUND PIPING & VALVES:**

a. Underground piping shall have a minimum working pressure of 150 psi (class 235). Underground piping connected to a fire pump or a fire department connection (FDC) shall have a minimum working pressure of 200 psi (class 305).

b. For private fire service mains two sources of water supply are required whenever 4 or more fire hydrants and/or fire sprinkler lead-ins are installed on a single system. Water systems under the purview of the Las Vegas Valley Water District shall conform to the Las Vegas Valley Water District rules.

c. For private fire service mains sectional control valves shall be installed so that no more than 2 fire hydrants and/or fire sprinkler in building risers (lead-ins) can be out of service due to a break in a water main. Water systems under the purview of the Las Vegas Valley Water District shall conform to the Las Vegas Valley Water District rules.

d. All piping and valves supplying fire sprinkler systems shall be protected from freezing when exposed to temperatures less than 40°F. Freeze protection shall be approved by Clark County Fire Prevention and be durable and permanent.

e. All required hydrostatic testing and flushing of the private fire service main or underground fire sprinkler/standpipe water supply piping shall be performed in the presence of Clark County Fire Prevention staff. The piping joints shall be uncovered until inspected. The installing contractor shall furnish a "contractor's material and testing certificate" (CM&T) countersigned by the property owner or representative. The CM&T shall be filled out completely with the inspector's initials, witnessing each test. A copy of the underground flush and hydrostatic testing documentation shall be on-site and signed prior to the connection of the underground water supply to the fire sprinkler system.

**GATES:**

a. Shop drawings for all gates and motorized openers serving fire department access roads shall be submitted separately under a separate permit for review by the Clark County Building Department and Fire Prevention and receive approval prior to their installation.

**FIRE APPARATUS ACCESS ROADS:**

a. Speed bumps and/or speed humps shall not be permitted within the required width of fire apparatus access roads.

**Exceptions:**

1. Speed humps are allowed on private fire apparatus access roads serving commercial and industrial buildings when approved by the fire code official.

2. Rumble strips are allowed on private fire apparatus access roads serving residential, commercial and industrial buildings when approved by the fire code official.

b. A maximum of six (6) single family homes (IBC Group R-3) or structures constructed in accordance with the IRC, may be situated on a 25 foot wide street (stub street) having a maximum length of 150 feet when all homes are provided with an approved automatic sprinkler system. The minimum width shall be 25 feet measured from back-of-curb to back-of-curb and on-street parking shall be prohibited on such stub streets.

c. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus, with a minimum vehicle load of 33,000 pounds per axle, and shall be surfaced and paved so as to provide all-weather driving capabilities.

d. Fire apparatus access roads including elevated portions shall be designed with a ground bearing capacity not less than 75 psi over the ground contact area.

**END OF GENERAL NOTES**

3. A Fire Prevention completed signature block on all utility sheets to be reviewed by Fire Prevention shall be provided as follows:

***Approval of these plans shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of the state or county laws.***  
***Fire Flow = \_\_\_\_\_ g.p.m. at 20 psi residual.***

4. A completed Fire Flow Information Block shall be provided as follows:

<b>FIRE FLOW INFORMATION</b>	
TYPE OF CONSTRUCTION	
TOTAL LIVING AREA (residential sq ft)	
TOTAL AREA (sq ft)	
NUMBER OF STORIES	
TYPE IA OR IB CONSTRUCTION: AREA OF THREE (3) LARGEST FLOORS	
BUILDING HEIGHT (ft)	
HIGH RISE BUILDING	___ YES ___ NO
IBC USE GROUP	
SPRINKLERED	___ YES ___ NO
NUMBER OF HYDRANTS INSTALLED	
FIRE FLOW ON-SITE	
TOTAL FIRE FLOW	GPM AT 20 PSI

5. Locations of water main connections, stubs, etc.

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6. Size and location of all underground fire sprinkler system laterals.
  7. Location, size, and type of new and existing water mains.
  8. Location, number, and type of new, relocated and existing fire hydrants.
  9. Location of sectional and control valves.
  10. Locations, size and type of new/existing DCDA's/RPDA and water meter assemblies.
  11. Details of thrust blocks in accordance with UDACS and NFPA 24.
  12. Curb lines, sidewalks, alleys, driveways, walls, fences, property lines, vehicle parking layouts (indicate whether or not parking is covered or uncovered), power poles, adjacent structures, all on-site buildings, any other items which are pertinent to hydrant placement.
  13. Emergency vehicle access plan indicating fire apparatus access road on and off property, in accordance with the Fire Code. Fire apparatus access road widths must be provided, including details of all street sections.

### **D103 Fire Hydrant System Design/Distribution/Frequency**

**D103.1** When four or more hydrants are provided on a private system require, two sources of water are required. Public hydrants are supplied according to the requirements of the water purveyor.

**D103.2** The spacing of fire hydrants shall place hydrants at all intersections.

**D103.2** Hydrants should be on the right side of the street (from the perspective of travel into the property) and should be inside the dead-end street when those occur. If the hydrant is not within spacing requirements to a dead-end, then an additional hydrant is required to meet the spacing requirements. There are no limitations on how close a hydrant can be to the dead-end.

**D103.3** In residential areas (R-3 occupancies and single family dwellings built under the *International Residential Code* - IRC only) hydrants shall be spaced not to exceed 500 feet apart, or 600 feet apart, if buildings are protected by approved automatic fire sprinkler systems.

**D103.4** The maximum distance from a one or two-family dwelling to a fire hydrant shall not exceed 300 feet, as measured from an approved point on a street or road frontage to a fire hydrant. An approved point is defined as the property line furthest from the hydrant, at a right angle to the street.

**D103.5** For all occupancies other than R-3 and single family dwellings built under the IRC, hydrants shall be spaced not to exceed 300 feet or 400 feet if buildings are protected by approved automatic fire sprinkler systems.

**D103.6** In all commercial, industrial and multi-family residential (R-1 and R-2 occupancies) areas, the maximum distance from a hydrant to the end of a dead-end street shall not exceed 200 feet (C102.6).

**D103.7** The minimum number of fire hydrants required to meet the fire flow shall be based on a maximum flow of 1,500 gallons per minute per hydrant. All hydrants utilized in providing the fire flow shall be within 750 feet of the structure being protected as measured along the street or approved fire apparatus access road (C105.1).

**D103.8** Fire hydrants on adjacent properties shall not be considered unless fire apparatus access roads extend between properties and recorded easements are established.

**D103.9** Where projects are built adjacent to street(s) provided with median dividers, or streets having four or more travel lanes and a traffic count of 30,000 vehicles per day, hydrants shall be added along such streets to achieve a maximum spacing of 1000 feet along both sides of the street, arranged on an alternating basis of 500 foot intervals.

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**D103.10** Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1.000 feet to provide water for transportation hazards.

**D103.11** Hydrants shall not be placed in the circular portion of a cul-de-sac per Las Vegas Valley Water District (LVVWD) Uniform Design Standards 2.21.01.

**D103.12** Sectional control valves shall be installed so that no more than 2 fire hydrants and/or 2 sprinkler lead-ins can be out of service at any one time.

**D103.13** Fire hydrants shall be located 4 feet to 7 feet from the back of curb. Where it is not possible to locate the hydrant a minimum of 4 feet from the back of the curb, or where curbs are not provided, the hydrant shall be protected against vehicular impact in accordance with Section 312.

**D103.14** Hydrants shall be located a minimum of 6 feet away from the beginning of a turning radius (LVVWD UDS 2.21.01).

**D103.15** Any control valves in the fire sprinkler lateral must be post indicator valve (PIV) type and electrically supervised.

**Exception:** When prior approval is obtained from the Clark County Fire Prevention, gate valves in underground water lines may be abandoned in place. The Clark County Fire Prevention must witness abandonment of the valve.

**D103.16** Hydrants shall be provided during construction as soon as combustible materials arrive on-site in accordance with Section 3312.

**D103.17** If during construction it becomes necessary to close any control valve or place a hydrant out of service, approval shall be obtained from the Clark County Fire Prevention prior to placing the hydrant out of service.

**D103.18** Supply lines feeding multiple fire hydrants shall have a minimum diameter of 8 inches. A supply line may be reduced to a diameter of 6 inches provided it supplies only one hydrant and has a maximum length of 150 feet.

#### **D104 Fire Hydrant Installation Specifications**

**D104.1** Hydrants shall be installed according to the currently adopted requirements.

**D104.2** Fire hydrant painting and marking: Public hydrants shall be painted safety yellow and private shall be painted red. Their locations shall be marked in the adjacent fire apparatus access road by a blue reflective pavement marker and the curbs shall be painted red 15 feet on each side of the hydrant. Where curbs are not provided, paint shall be applied along the roadside for 15 feet in each direction.

**D104.3** All cap, hose nozzle and pumper nozzle threads shall be free of dirt, rust, etc., and shall be lightly greased.

**D104.4** Protection of fire hydrants from vehicular impact: Where a hydrant is located less than 4 feet from the back of the curb, or where curbs are not provided, protective posts shall be installed.

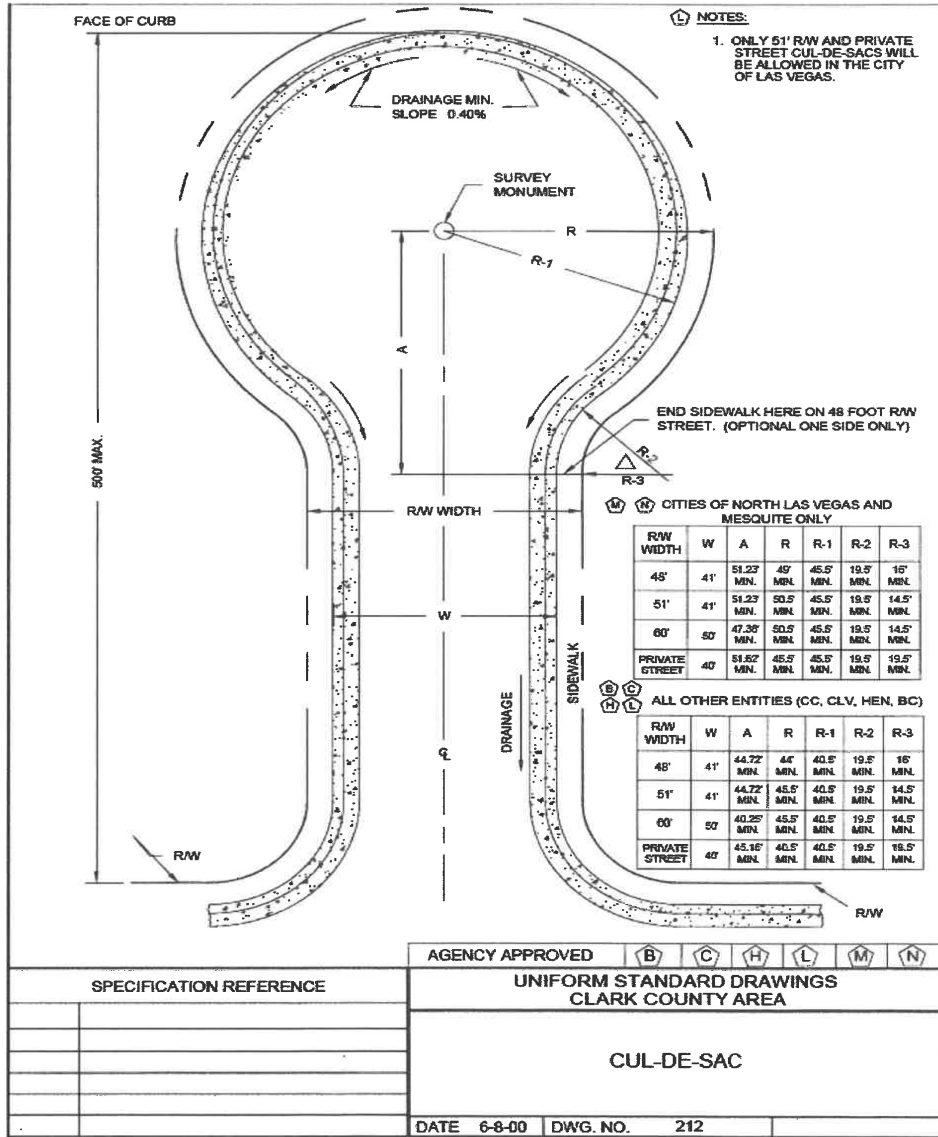
**D104.5** Hydrants shall be installed so that the breakaway flange is located no higher than 6 inches nor less than 2 inches from the 3' x 3' x 10" concrete pad which is reinforced with a minimum of #4 rebar installed throughout the pad (UDACS 40).

**D104.6** Approved Fire Hydrants: Hydrants that are proposed for installation in public water systems shall be in accordance with approved fire hydrants as allowed by the water purveyor. Hydrants proposed for installation on private water systems shall also be in accordance with the hydrants approved by the water purveyor.

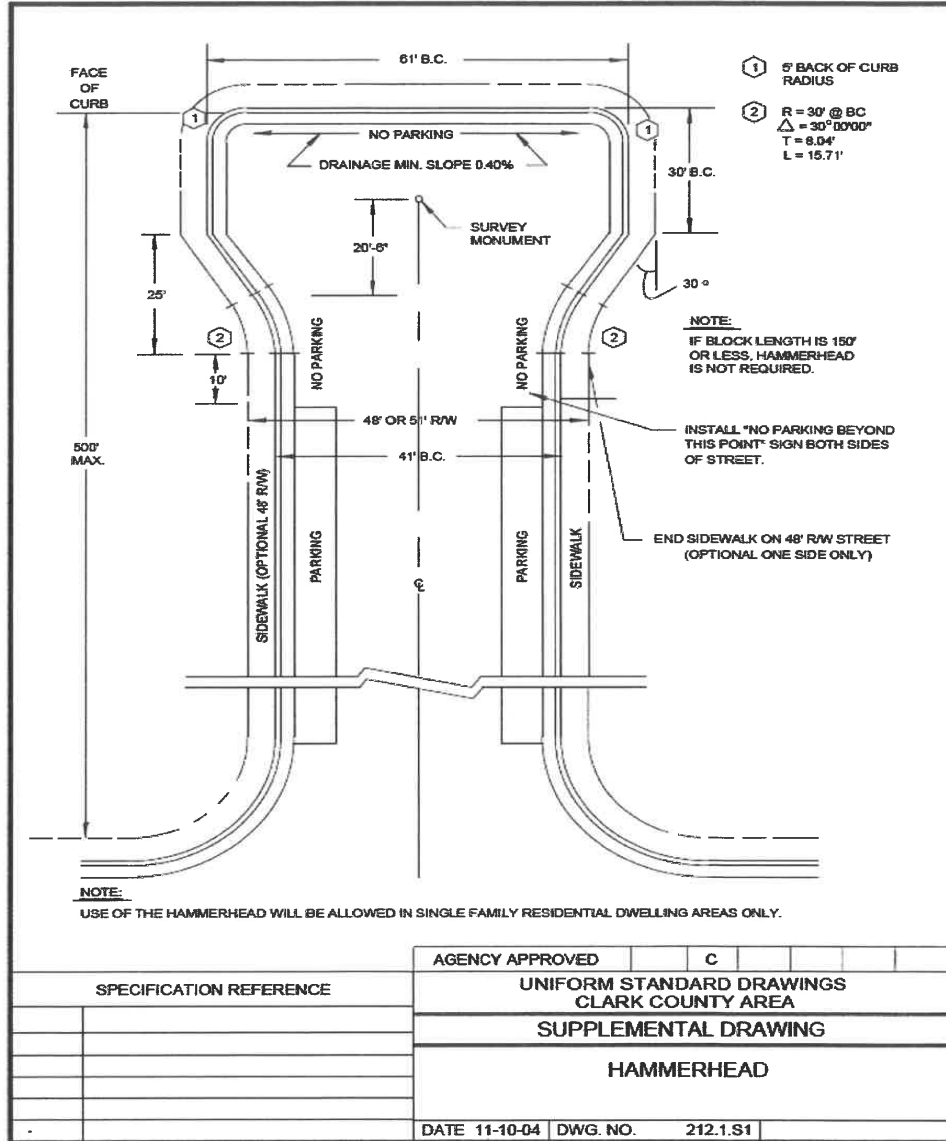
**D105 Fire Apparatus Access Roads**

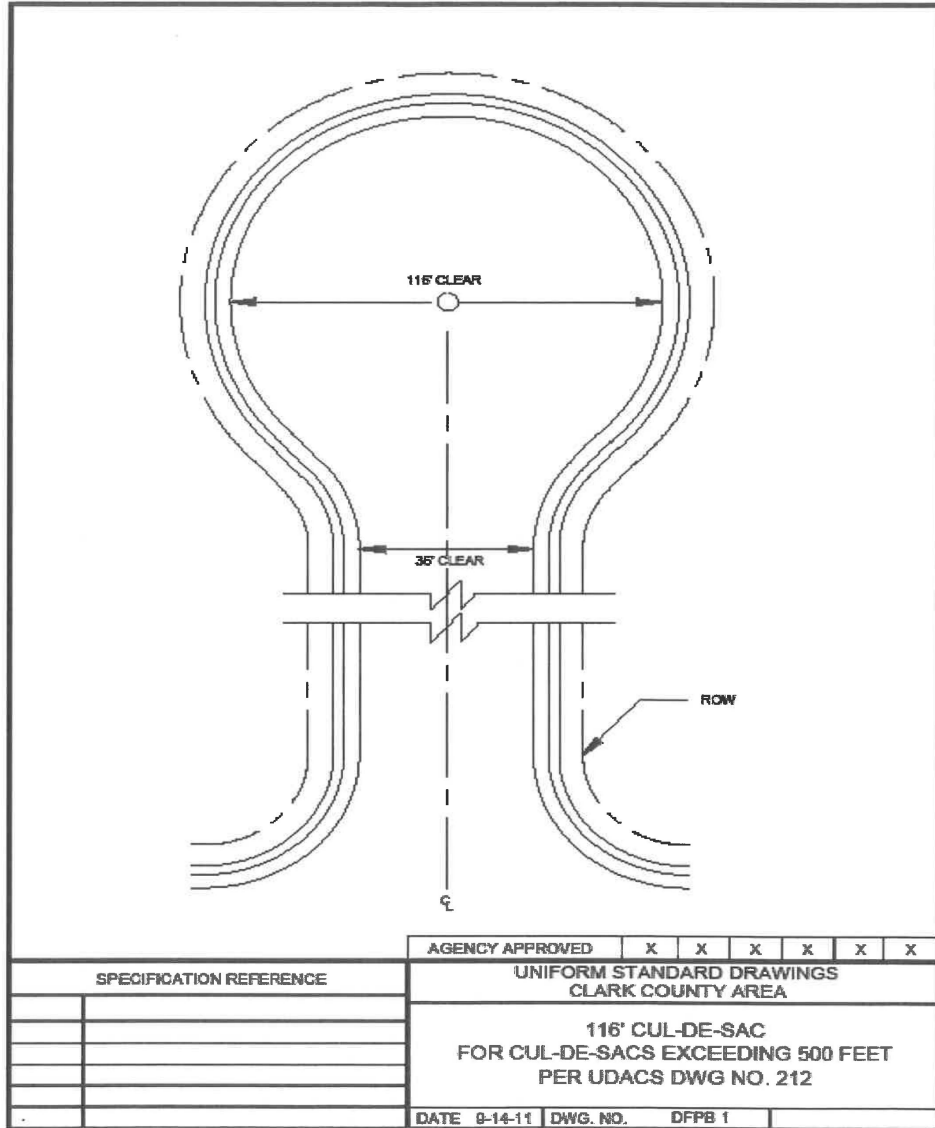
**D105.1** Fire apparatus roads are to comply with Section 503.

**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 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 600 feet must use one of the Clark County Fire Department approved fire apparatus turn around designs DFPB 1, 2, 3 or 4.

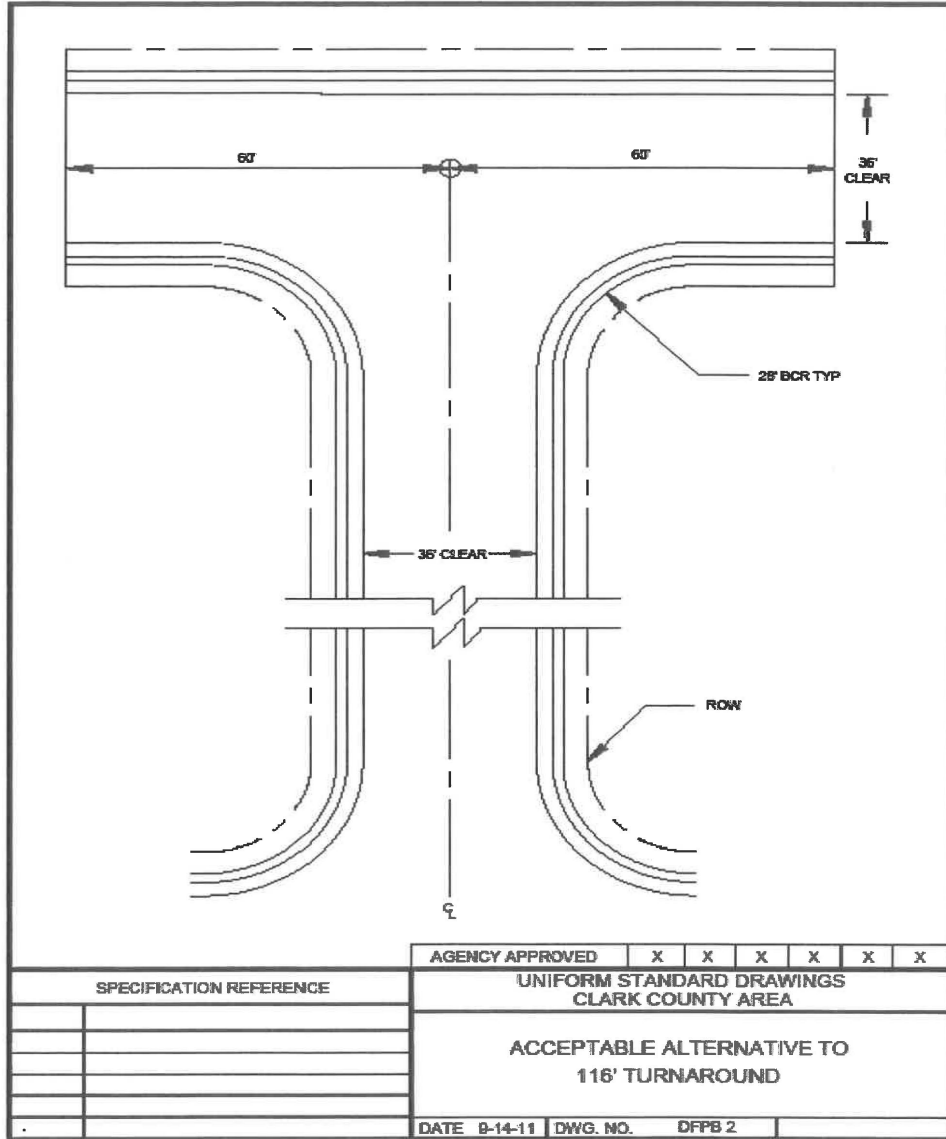


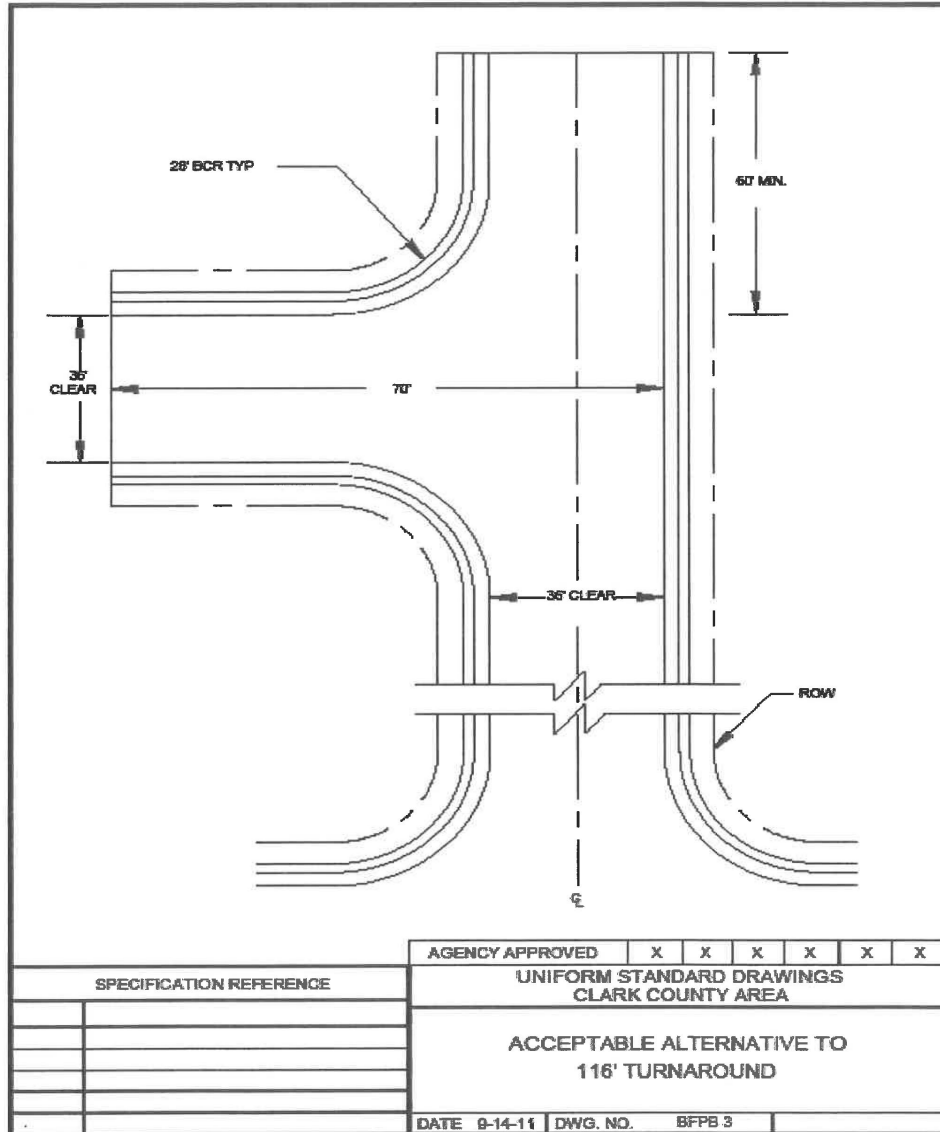


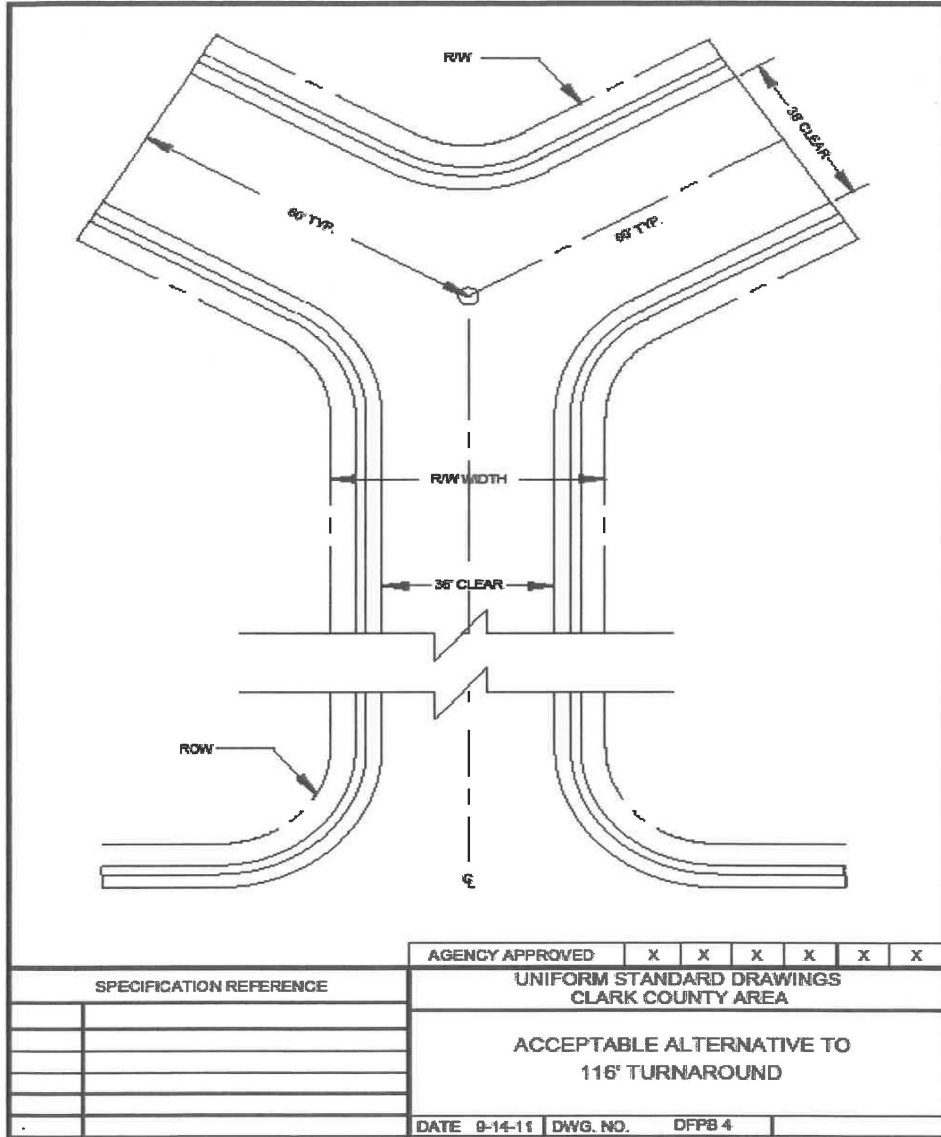




SPECIFICATION REFERENCE		AGENCY APPROVED					
		X	X	X	X	X	X
		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA					
		116' CUL-DE-SAC FOR CUL-DE-SACS EXCEEDING 500 FEET PER UDACS DWG NO. 212					
		DATE	9-14-11	DWG. NO.	DFPB 1		







(Ord. No. 4664, § 1, 1-22-2019; Ord. No. 5064, § 1, 9-5-2023)

**13.04.525 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.525 which pertained to Appendix E hazard categories and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

**13.04.550 Reserved.**

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.550 which pertained to Appendix J emergency responder radio coverage system and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

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### 13.04.555 Reserved.

Editor's note(s)—Ord. No. 4129, § 1, adopted Sept. 17, 2013, repealed § 13.04.555 which pertained to Appendix K proprietary supervising station facilities and derived from Ord. No. 3922, § 1, adopted Dec. 21, 2010.

### 13.04.560 Appendix P fire protection systems—Impairments and systems out of service.

A subsection, designated "P101.2 Impairment Coordinator Procedures, is amended to read as follows:

**P101.2 Impairment Coordinator Procedures.** For all impairments, both planned and emergency (unplanned), an impairment coordinator shall be designated per Section 901.7.1. An impairment coordinator is the person responsible for maintenance of a particular fire protection system. When an *impairment coordinator* is not designated the *owner* shall be considered the impairment coordinator.

The impairment coordinator is responsible for informing the Fire Prevention Bureau as to the nature of the impairment and its status, coordinating necessary repairs, tagging systems per Section 901.7.2 & 901.7.3 and implementing required alternative protection measures.

For all planned impairments, the impairment coordinator shall engage licensed contractors to conduct work needed on the fire protection systems. For all emergency impairments, the impairment coordinator shall contact the appropriate fire sprinkler, fire alarm or other fire protection system maintenance contractor to initiate emergency service response.

A subsection, designated "P101.4.3 Other Measures," is amended to read as follows:

**P101.4.3 Other Measures.** When determined necessary by the Fire Code Official, on a case-by-case basis, the impairment coordinator may be required to implement additional protection measures. The measure(s) available to the *Fire Code Official* include, but are not limited to, the following:

- 1) Fire Prevention Bureau oversight of Fire Watch.
- 2) Manning of equipment, such as manual release buttons for deluge systems.
- 3) Discontinuance of hazardous activities, such as cooking, welding, and pyrotechnic displays.
- 4) Removing hazard from building, i.e. as removing an airplane from a hangar.
- 5) Have all fire doors and shutters closed.
- 6) Manually activate smoke control.
- 7) Shut down an elevator.
- 8) Unlock stair door locks.
- 9) Engine stand-by for supply to fire sprinkler/standpipe system.
- 10) Partial evacuation of building.
- 11) Full evacuation of building.

Any costs associated with providing alternative protection measures shall be borne by the building owner.

(Ord. No. 3922, § 1, 12-21-2010; Ord. No. 4095, § 10, 4-2-2013; Ord. No. 4129, § 1, 9-17-2013; Ord. No. 4664, § 1, 1-22-2019)

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### **13.04.570 Appendix Q Southern Nevada Fire Chiefs Association Approved Guideline for Consumer Fireworks.**

A subsection, "Appendix Q Southern Nevada Fire Chiefs Association Approved Guideline for Consumer Fireworks," is added as follows:

**Q101 Introduction.** The Southern Nevada Fire Chiefs Associated Approved Guideline for Consumer Fireworks is hereby adopted into the Clark County Fire Code.

**TITLE:**

**CONSUMER FIREWORKS**

**SCOPE:**

To provide for the issuance of permits for the sale and storage of fireworks classified as U.N. explosive class 1.4G "consumer fireworks" (formerly class C fireworks).

**REFERENCE:**

International Fire Code (IFC), Clark County Amendments to the IFC, NFPA 1124, Code for the Manufacture, Transportation, Storage, Retail Sales of Fireworks and Pyrotechnic Articles.

- The current Fire Code and/or amendments in effect for the specific jurisdiction.
- Testing procedures are labeled as Attachment #1 and are based on the requirements set forth in the APA (American Pyrotechnics Association) standard 87-1

‡ This attachment is for the SNCFCC Only

**PURPOSE:**

To standardize Authority Having Jurisdiction requirements throughout Southern Nevada with all jurisdictions, regarding the issuance of permits for the sale, storage and use of U.N. explosive class 1.4G "consumer fireworks."

**General Requirements**

This handout is a guideline provided as a public service and is not intended to be a reprint of every code section which addresses this issue. The user of this document is required to comply with all code requirements, laws, ordinances, etc., Authority Having Jurisdiction or otherwise which apply to the sales, storage and use of fireworks. The Authority Having Jurisdiction may require more stringent conditions than noted in this document.

- All product being used for retail sales, transporting, possess, store or manufactured must be through a Nevada State licensed, federally licensed and SNCFCC approved wholesaler.
- A permit shall be obtained for the storage and sale of fireworks. The wholesaler shall submit an application for a storage site, and each retail site (fireworks retail sales stand/booth). Said application shall be made on a form supplied by the Authority Having Jurisdiction.
- The Authority Having Jurisdiction shall review the permit packets and either approve or disapprove them within a reasonable time frame.
- The issuance of a permit for the sale and storage of fireworks shall not preclude the Authority Having Jurisdiction from subsequently revoking the permit, imposing additional requirements, or supplementing any existing requirement whenever, in the opinion of the above, later information or newly discovered conditions justify such actions.

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### **A. Orientation Meeting for Wholesalers and Retailers**

1. The Fire Prevention Division for each Authority Having Jurisdiction (or in combination) shall hold at least two (2) orientation meetings. These meetings shall be to review this Guideline and specific jurisdictional requirements and shall be before May 25<sup>th</sup> of each year. Each retailer shall attend at least one meeting for the specific jurisdiction where the retail sales stand/booth is to be located.
2. Any representative can attend for all firework stands/booth locations for one organization. If there are more than 3 retail sales stand/booth per organization, 2 representatives shall attend the orientation and 1 person per every 3 retail sales stand/booth thereafter. Any representative can be available for the inspection of the fireworks retail sales stand/booth on the day and time listed on the orientation form.

### **B. Regulations for Fireworks**

1. Except as hereinafter provided, it shall be unlawful for any person to possess, store, offer for sale, expose for sale, sell at retail, or use or explode any consumer fireworks, provided that the Authority Having Jurisdiction shall have power to adopt reasonable rules and regulations for the granting of permits for supervised public display of fireworks by persons, corporations, associations, or other organizations.
2. The retail sale of fireworks shall only take place in fire department/fire code official authorized fireworks retail sales stand/booth by recognizable local charitable and not for profit organizations. A permit shall be obtained by the local AHJ.
3. No person, firm or corporation shall offer fireworks for sale to the public before the 28<sup>th</sup> day of June or after the 4<sup>th</sup> day of July each year.
4. The possession, storage, and use of approved consumer fireworks accepted by the SNCFCC and the Authority having Jurisdiction is permitted only from June 28<sup>th</sup> through July 4<sup>th</sup>.

### **C. Permits**

1. To obtain an approval by the Authority Having Jurisdiction, the applicant shall:
  - a) Submit a completed application form.
  - b) Provide a site plan of the proposed location indicating all buildings, property lines, roadways, distances etc. Any deviation from the approved structure and/or site plan requires a submittal of the revised plan and must be approved.
    - An approved address is required.
  - c) Certificate of Insurance
    - The permittee/applicant shall furnish a certificate of insurance for at least \$1,000,000 or greater as specified by Authority Having Jurisdiction.
    - The insurance policy shall be for the payment of damages, which could be caused either to a person or persons or to property arising from acts of the permittee, agents, employees or subcontractors.
  - d) Provide proof of attendance at an orientation meeting.
  - e) Provide a copy of the contract for fireworks sales between the SNCFCC approved Wholesaler and the Retailers.
  - f) Provide a copy of the agreement/contract between the SNCFCC approved wholesalers and the land owner to allow a sales stand/booth on their property.



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- The address where the stand/booth will be located must be on the agreement/contract.

## 2. Revocation of Permits

- a) The sale of fireworks is a privilege, which may be suspended or revoked by the Authority Having Jurisdiction when it is determined that any of the following occurred:
- b) A permit is used by an organization other than the organization for which the permit was issued.
- c) A permit is used for a location other than that for which it was issued.
- d) Any of the conditions or limitations set forth in the permit have been violated.
- e) The permittee fails, refuses, or neglects to comply with any order or notice duly served upon him or the organization under the provisions of jurisdictional requirements and/or this guideline within the time provided therein.
- f) Fireworks are discovered to be stored at a location other than indicated on the application for permit.
- g) The permittee sells any fireworks which were not obtained from a SNCFCC approved wholesaler.
- h) Any fireworks specifically not on the approved list that are found on the premises (to include vehicles and trailers) are grounds for revocation of permit.
- i) Any violations discovered by local authorities that is against this guideline, local laws or local jurisdiction requirements.

## D. Fireworks retail sales stands/booths

Wholesaler shall provide instruction/demonstration to the Retailers on the proper method of stand/booth setup prior to the fireworks retail sales stand/booth

### 1. Fireworks Stand/Booth Inspections:

- a) Fireworks stands/booths shall be inspected and approved by the Authority Having Jurisdiction at any time starting June 28<sup>th</sup>.
- b) The Authority Having Jurisdiction has the right to re-inspect any previously inspected and/or approved fireworks retail sales stands/booths at any time between June 28<sup>th</sup> and July 4<sup>th</sup>.

### 2. Size of Stands/Booths

- a) No fireworks retail sales stand/booth shall exceed 16 feet 6 inches in length or 8 feet in width.

**Exception:** Any fireworks retail sales stand/booth exceeding these dimensions must be approved by the Authority Having Jurisdiction prior to construction.

### 3. Construction of Stand/Booths

- a) Siding and roof shall be made of ¼-inch or thicker plywood (or comparable material) or of Non-combustible materials. Converted travel-type trailers may be permitted. The fireworks retail sales stand/booth construction must be structurally sound.
- b) Exiting for fireworks retail sales stand/booths shall comply with subsection "5" of this section.
- c) All fireworks retail sales stand/booth used for sales of fireworks must be approved by the Authority Having Jurisdiction.

### 4. Electrical Wiring and Appliances

- a) All electrical wiring and appliances shall meet the requirements of the National Electrical Code.
- b) Electrical wiring and lighting shall be "U.L." listed for outside use when exposed to the elements.
- c) Electrical wiring shall be properly sized for its use.
- d) All electrical wiring shall be protected from physical injury.
- e) Portable electric generator locations shall be at least 20 feet away from the stand/booth.
- f) Minimum height of electrical wiring when placed from a utility pole or a building to the fireworks retail sales stand/booth is 13 feet 6 inches above grade.

**5. Exits**

- a) The fireworks retail sales stand/booth shall have no less than 2 exits (minimum of 6 feet in height and 2 feet in width).
- b) The counter shall **not** be considered an exit.
- c) Exit path shall be free and clear of all obstructions at all times.
- d) Aisles: In temporary consumer fireworks retail sales stand/booths where the interior is not accessible to the public, the minimum clear width of the aisle shall be permitted to be not less than 28 inches.

**6. Location/Distances/Attachments**

- a) Tarps shall be allowed to be attached to the roof for protection from the elements.
  - Tarps shall be flame retardant and shall indicate this via certificate from the manufacture, on packaging (if indicated on packaging, the package shall remain with the tarp at all times) or on the tarp(s) itself.
  - Tarps shall be firmly secured in a manner that at no point shall any portion more than 1 foot of the tarp hangs over the edge of the roof edges of the stand/booth.
    - Tarp must not block the "No Smoking" symbol or signs
    - Type of tarps allowed to be used:
    - Tarps must be removed by organization at end of sale season
    - Method(s) for securing tarps allowed:
      - Attach tarp using a screw and washer through each grommet
        - Provides secure attachment to booth
      - A minimum 1 inch screw shall be used to secure tarp.
- b.) Fireworks retail sales stand/booths shall be so located as to not endanger persons, buildings, structures, property, brush, automotive vehicles and/or equipment, etc. Booths shall be located away from other hazards to include but not be limited to what is outlined in the following table:

	Minimum separation distances from fireworks retail sales stand/booth			
5 feet	10 feet	20 feet	30 feet	50 feet
Metal or aluminum pop up canopies	Vehicle Parking Curb or edge of	Buildings Tents	Combustibles (including empty product boxes,	Motor vehicle fuel dispensers

	roadway, street, or driveway, etc.  Air/Water dispensers	Fireworks Storage  Other fireworks retail sales stand/booth  Temp Generators and extra fuel  Underground storage tank fuel fill ports	dry grass, dry brush and any combustible debris)	Propane dispensers  Compressed natural gas dispensing facilities  Above ground storage tanks for flammable or combustible liquids, flammable compressed gasses including propane  Any cooking equipment (BBQ's)  Ignition Sources (Matches, lighters etc.)
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**Wholesaler Requirements**

**E. General Wholesaler Requirements**

1. Wholesalers shall obtain a permit from Authority Having Jurisdiction and/or other permits or licenses required for the possession and storage of fireworks prior to possession, storage, and/or transportation of fireworks.
2. The wholesaler shall ensure that each charitable or not for profit organization submits one completed permit application and required documents for a permit for each proposed fireworks retail sales stand/booth location. These forms can be submitted to the Authority Having Jurisdiction at any time, once they have attended the required orientation and prior to June 1st of the current sales year.
3. Permits shall at all times be kept on the storage premises and said premises shall at all times be subject to inspection by an officer of the fire or police department or other authorized persons.
4. Wholesalers are to inform the Authority Having Jurisdiction, in writing, by the 1 st of May as to where they are proposing to store their products.
5. Wholesalers shall not permit fireworks from leaving storage yards until the first day of the authorized sales day (June 28<sup>th</sup>).
6. Wholesalers shall be required to present a copy of the guidelines and ensure the retailer understands the contents of the guideline: at time of application.
7. Wholesaler must inform the applicants of all requirements for sale of fireworks.

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## **F. Certificate of Insurance**

1. The wholesaler shall furnish a certificate of insurance at the time of permit submittal in the amount deemed adequate by the Authority Having Jurisdiction for the payment of damages which could be caused either to a person or persons or to property arising from acts of the permittee, agents, employees or subcontractors.
2. The permittee/wholesaler shall provide the name of the insurance company to furnish the policy at the time of the application. The amount of coverage shall be at least \$1,000,000 or greater as specified by Authority Having Jurisdiction public liability & property damage. The insurance policy shall designate the Authority Having Jurisdiction as an additional insured there under.

## **G. Testing and Acceptance of Fireworks**

1. Testing and acceptance procedures are according to the SNCFCC Guideline for Consumer Fireworks Testing and Acceptance Procedure; attachment #1. This document is available upon request from the SNCFCC. Wholesaler or any local fire department's Fire Prevention Division.
  - a. Handhelds shall be tested every year and other materials/products (fountains, spinners, smoke balls etc.) shall be tested every 5 years.
  - b. All fireworks must be labeled with a permanently affixed Safe and Sane seal/label. (Stickers are not acceptable.)
  - c. Product must be packaged and labeled the way it is to be sold.
  - d. The testing of materials/products will be conducted/witnessed by Authority Having Jurisdiction SNCFCC members and shall be completed by April 30<sup>th</sup> of each sales year.

## **RETAILER REQUIREMENTS**

### **H. General Retailer Requirements**

1. Retailers shall be limited to local charitable, fraternal, and non-profit organizations and shall obtain a permit from the Authority Having Jurisdiction through the approved wholesaler, for possession, storage, transportation, sales, and/or use of fireworks prior to storage or sale of fireworks.
2. A proof of orientation attendance certificate will be given to the fireworks retail sales stand/booth representative signed on the day of the orientation and will be required to be in a readily accessible location in the fireworks retail sales stand/booth prior to any permit being issued.
3. A copy of this guideline shall be at a readily accessible location in the fireworks retail sales stand/booth, and every worker in the booth shall have signed the signature sheet indicating that they have read and understand the guideline.
4. Retailers shall be permitted to sell approved consumer fireworks obtained from a SNCFCC approved Wholesaler.
5. Permits shall at all times be kept in the fireworks retail sales stand/booth and said premises and shall at all times be subject to inspection by an officer of the fire or police department or other authorized persons.

### **I. Fireworks Discharge**

1. Fireworks shall not be ignited, discharged, or otherwise used within 300 feet of a consumer fireworks retail sales stand/booth or store, gasoline service station buildings, gasoline dispensers, flammable or combustible liquid tank fill or vent lines, above ground flammable or combustible liquid tanks or any building, structure or vehicle containing unsealed flammable or combustible liquids, hazardous materials, or explosives.

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- At least one sign that reads as follows, in letters at least 4-inch high on a contrasting background, shall be conspicuously posted on the exterior of each side of the consumer fireworks stand/booth. "No fireworks discharge within 300 feet"
2. Ignition of fireworks shall take place so as to not endanger persons, buildings, structures, property, brush, automotive vehicles and/or equipment, etc.
  3. Ignition of fireworks shall not take place before the 28<sup>th</sup> day of June or after the 4<sup>th</sup> day of July.

#### **J. Age and Number of Persons in the Fireworks Stand/Booth**

1. No person under 16 years of age shall be allowed in a fireworks retail sales stand/booth
2. Booths must at all times have at least one adult and two people in the fireworks retail sales stand/booth at all times during operation. One of which must be 18 years or older.
  - a) Storing materials/products in fireworks retail sales stand/booths overnight require only one person to remain alert and awake at all times.
3. Limit the amount of people in the fireworks retail sales stand/booth to a max of 4 at one time.
  - a) Approx. 2 people per 8 feet panel/section of booth.
  - b) Bigger, approved custom booths will be addressed the same way

#### **K. Conditions of Purchase**

1. Consumer must be at least 16 years of age in order to purchase any type of fireworks.
2. Any person selling consumer fireworks shall not knowingly sell consumer fireworks to any person who is obviously under the influence of alcohol or drugs.

#### **L. Training**

1. All personnel handling consumer fireworks shall receive safety training related to the performance of their duties by the Wholesalers.

#### **M. Fireworks Booths**

##### **1. Fire Protection**

- a) An approved minimum rated 2A10-B:C fire extinguisher(s)\* is required in each fireworks retail sales stand/booth. These are provided by the wholesaler when the Retailer picks up the product.
- b) The extinguisher must be installed prior to stocking of product.
  - Must be mounted to wall of booth. 4 inch off floor up to 5 ft high
  - Must have current tag by a Nevada State Licensee\*

##### **2. "NO SMOKING" Requirements**

- a) Smoking shall not be permitted inside or within 50 feet of the consumer fireworks retail sales stand/booth
- b) "NO SMOKING" signs in English and Spanish shall be conspicuously and permanently posted on all 4 exterior sides of the fireworks retail sales stand/booth. The lettering shall be at least 3 inches in height, and be against a color contrasting surface so it can be easily seen.
- c) The international symbol for "No Smoking" can be stenciled above the exit doors on the exterior of the fireworks retail sales stand/booth.

##### **3. Display of Fireworks in Booths**

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a) Only fireworks obtained from a SNCFCC approved Wholesaler, which appear on the "approved" consumer fireworks product list of that calendar year as approved by the SNCFCC and/or the Authority Having Jurisdiction, shall be displayed in booths, for sale and on booth premises.

b) Extra product storage shall be neat and orderly under the shelving.

c) Matches, lighters and other sources of ignition shall not be located in the fireworks retail sales stand/booth or within 50 feet of booths.

#### **N. Portable Generators**

1. Portable generators shall be located not less than 20 feet from the consumer fireworks retail sales stand/booth.

2. Portable "gasoline" generators shall be permitted provided the fuel tank quantity is limited to 2 gallons. (*Class I flammable liquids*)

3. Portable "diesel or kerosene" generators shall be permitted provided the fuel tank quantity is limited to 5 gallons. (*Class II and Class III Combustible Liquids*)

4. Generator fuels shall not be stored less than 20 feet from the consumer fireworks retail sales stand/booth, and shall be limited to not more than 3 gallons.

5. Where the generator fuel storage is located greater than 50 feet from the consumer fireworks retail sales stand/booth, the quantity of such fuel shall not be limited.

#### **O. Cooking Equipment**

1. Cooking equipment of any type shall not be permitted within 50 feet of fireworks retail sales stand/booths, used for the storage or sale of consumer fireworks.

#### **P. Parking**

1. No motor vehicle or trailer parking within 10 feet of a fireworks retail sales stand/booth.

2. No motor vehicle or trailer carrying or storing consumer fireworks shall be parked within 20 feet of a fireworks stand/booth, except when delivering, loading, or unloading fireworks or other merchandise and materials used, stored or displayed for sale in the fireworks retail sales stand/booth.

#### **Q. Security**

1. Consumer fireworks retail sales stand/booth

a. Shall be manned at all times while product is on site for sale or storage.

b. Storing (not selling) materials/products in the fireworks retail sales stand/booths overnight require only one person to remain alert and awake at all times.

2. Storage Locations

a. There shall be no storage permitted at any location unless the location is approved for that use by the Authority having Jurisdiction.

b. In no case shall storage, for consumer fireworks, be permitted in residential neighborhoods, dwellings, garages, public ways or driveways.

#### **R. Records**

1. **Inventory of Product**

a. Available inventory records shall be maintained in the fireworks retail sales stand/booth when there is product on site.

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b. The approved consumer fireworks product list shall be maintained in the fireworks retail sales stand/booth at all times when there is product on site.

c. Approved permit packet shall be maintained on site at all times when there is product on site.

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## Attachment 1

(Of the Southern Nevada Fire Chiefs Association approved Guideline for Consumer Fireworks)

### Southern Nevada Consumer Fireworks Code Committee (SNCFCC) Testing and Acceptance Procedures

Based on the requirements set forth in the APA (American Pyrotechnics Association) Standard 87-1

#### A. General

a. It shall be unlawful for any person to possess, store, offer for sale, expose for sale, sell at wholesale or retail, or use or explode any fireworks.

*Exception:* Fireworks which meet all provisions of this rule and regulation and have been field-tested witnessed and accepted by the Southern Nevada Consumer Fireworks Code Committee.

b. A minimum of 3 samples of each U.N. explosive class 1.4 G "consumer firework" devices due for renewal testing and new devices not previously tested and approved for sale by the SNCFCC shall be submitted to the SNCFCC for testing and acceptance no later than the 30<sup>th</sup> day of April of the current sales year. Items will be tested using the "Consumer Fireworks Product test Form." Passed or failed based criteria is outlined below and on the form.

- *Re-testing:* any item which fails the initial test may be submitted for retesting. A minimum of 10 samples are required for the retesting and shall be retested using the "Consumer Fireworks Product Test Form" The item will be passed or failed based on the criteria outlined below and on the form.

c. The SNCFCC may revoke prior acceptance of any fireworks item due to the changing in any way of the item by the manufacturer, wholesaler, retailer, or any other person(s).

d. Every five (5) years the SNCC shall test all fireworks and develop and "approved for sale" list

e. Handheld devices shall be tested annually

#### B. Safe and Sane Labels

a. All locally accepted fireworks shall have a California State Fire Marshal's "Safe and Sane" label printed on the item, or, in the case of small items, the item box shall have the State Fire Marshal's "Safe and Sane Seal" on it. NO Safe and Sane "Stickers" will be allowed.

b. Each and every fireworks item labeled "Safe and Sane" shall be approved by DOT as a UN explosive class 1.4G "consumer fireworks" and shall be on the SNCFCC or the Authority Having Jurisdictions approved for sale fireworks list.

#### C. Packaging

a. Retailers shall display and sell consumer fireworks as they are intended and required to be sold per the wholesaler.

b. Pyrotechnic leakage

- The pyrotechnic chamber in the firework device shall be sealed in a manner that prevents leakage of the pyrotechnic composition during handling, transportation and normal operations.

#### D. Fuses

a. Firework devices that require a fuse shall comply with the following:

- Utilize only a safety fuse that has been treated or coated in such a manner as to reduce the possibility of side ignition.

*Exception:* Devices such as which require a restricted orifice to operate and contain less than 6 grams of pyrotechnic composition.



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- Utilize only a fuse which will burn at least 3 seconds but not more than 9 seconds before ignition of the device.
  - The fuse shall be securely attached so that it will support either the weight of the firework device plus 8 ounces (227g) of dead weight or double the weight of the device, whichever is less, without separation from the firework device for 30 seconds.

#### E. Bases

- a. The base of the bottom of the firework devices that are operated in a standing position shall have the minimum horizontal dimension or the diameter of the base equal to at least  $\frac{1}{3}$  of the height of the device including any base or cap affixed thereto. Bases must remain fully attached to the item during transportation, handling and normal operations.

#### F. Handles

- a. Firework devices which are intended to be hand-held and so labeled shall incorporate a handle at least 4 inches in length. Handles shall remain firmly attached during transportation, handling and full operation of the device, or shall consist of an integral section of the device at least 4 inches below the pyrotechnic chamber.

*Exception:* Sparklers which are less than or equal to 10 inches in length shall have the handles greater than or equal to 3 inches in length.

#### G. Spikes

- a. Spikes provided with fireworks devices shall be firmly attached during transportation, handling and full operation of the device. Spikes shall protrude at least 2 inches from the base of the device and shall have a blunt tip not less than  $\frac{1}{8}$  inch in diameter or  $\frac{1}{8}$  inch square.

#### H. Ground Spinners

- a. Ground spinning devices or any device that is designed to move shall operate within an area of a circle of 10 feet in diameter or less.
- b. The device shall not rise more than 1 foot into the air.
- c. Multi-color or multi-effect ground devices shall not exceed 10 seconds between effects.

#### I. Wheeled Devices

- a. Drives in firework devices commonly known as "wheels" shall be securely attached to the device so that they will not come loose in transportation, handling, and normal operation. Wheel devices intend to operate in a fixed location shall be designed in such a manner that the axle remains attached to the device during normal operation.
- b. A nail for attachment to a suitable location shall be included with each device.

#### J. Toy Smoke and Flitter Devices

- a. Toy smoke devices shall be constructed so that they will neither burst nor produce external flame (excluding the fuse and first fire upon ignition) during normal operation.
- b. Toy smoke and flitter devices shall not be of such color and configuration so as to be confused with banned fireworks including but not limited to: M-80 salutes, silver salutes, cherry bombs, etc.
- c. Toy smoke devices shall not incorporate plastic as an exterior material if the pyrotechnic composition comes in direct contact with the plastic.

#### K. Ignition testing.

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a. Burnout, blowout and meltdown.

- Burnout - the unintended escape of flame through the wall of a pyrotechnic chamber during use
- Blowout - the unintended release of pressure at the other than the intended orifice
- Meltdown - the continued burning of a pyrotechnic device after the intended effect has concluded. (Cool down time: 30 minutes per AFSL requirements)

b. Residual Burning Test

- Use a thermal detector to note the temperature on the test form during ignition. Place the detector 11 inches from top of product while getting temperature reading.
- After the 30 min cool down period, note the temperature on the test form holding the detector 11 inches from top of product.
- If the internal temperature of the product tested is above 250°F (121°C), the product is recorded as a failure

c. Duds

- Duds - devices which fail to ignite and perform their intended effect, or which the fuse initially ignites but fails to ignite the device.

L. Novelties.

a. Novelties are defined as U.N. class 1.4s or are deregulated and NOT classified as hazardous materials by DOT on the basis of specific test results. Novelty items are not tested or approved by SNCC and are legal to sell year round.

• Novelties Include:

- **Party Poppers** - Small plastic or paper devices containing not more than 16mg of explosive composition that is friction sensitive. A string protruding from the device is usually pulled to ignite it. This device expels non-flammable paper streamers and/or similar products and produces a small report.
- **Snappers** - Small, paper-wrapped device containing not more than 1.0mg of explosive composition coated on small bits of sand, and package with sawdust in individual containers of not more than 50 units. When dropped the device explodes, producing a small report.
- **Snake, Glow Worm** - Pressed pellet of not more than 2g of pyrotechnic composition and packaged in retail packages of not more than 25 units that produces as the primary effect a snake-like ash upon burning. The ash expands in length as the pellet burns.
- **Sparklers (#10 or less)** - Wire or stick coated with pyrotechnic composition which may not exceed 100g per item, that produces a shower of sparks upon ignition.
- **Toy Caps** - Toy plastic or paper caps for toy pistols in sheets, strips, rolls, or individual caps, containing not more than an average of 16 mg of explosive composition per cap. Toy Caps are described as fireworks UN0336 and classed as 1.4G.
- **Other Novelties** - Devices intended to produce unique visual or audible effects and containing 50mg or less of explosive composition and limited amounts of other pyrotechnic composition. *Examples include:* Cigarette loads, trick matches, explosive auto alarms and other trick noise makers.

M. Prohibited Chemicals

a. Firework devices shall not contain any of the following:

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- Arsenic sulfide, arsenates, or arsenite.
  - Boron
  - Chlorates
    - *Exceptions:*
      - a. In colored smoke mixtures to which an equal or greater amount of sodium bicarbonate is included.
      - b. In caps
      - c. In those small items wherein the total power content does not exceed 4g of which not greater than 15% (or 600mg) is potassium, sodium, or barium chloride.
  - Gallate or gallic acid
  - Magnesium
    - *Exception:*
      - a. *Magnesium/aluminum alloys, aka "magnalium"*
  - Mercury salts
  - Phosphorus (red or white)
    - *Exception:*
      - a. Red phosphorus is permitted in caps
    - Picrates or picric acid
  - Thiocyanates
  - Titanium
    - *Exception:*
      - a. Particle sizes greater than 100-mesh
  - Zirconium

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**Consumer Fireworks Product Test Sheet**

**Distributor:** TNT  Phantom  Other:

**Full Product Name:** \_\_\_\_\_ Single Color  Multiple Colors

**Item #:**      **EX #:**      **If Packaged in multiples, # per package:**

**Type:** Fountain  Spinner  Sparkler  Popper  Snake  Handheld

**New:**  **Renewal:**  **Re-test:**

**Initial Test Weight:** 1: \_\_\_\_\_ 2: \_\_\_\_\_ 3: \_\_\_\_\_

**Re-test Weight:** 1: \_\_\_\_\_ 2: \_\_\_\_\_ 3: \_\_\_\_\_ 4: \_\_\_\_\_ 5: \_\_\_\_\_ 6: \_\_\_\_\_  
7: \_\_\_\_\_ 8: \_\_\_\_\_ 9: \_\_\_\_\_ 10: \_\_\_\_\_

**Packaging:** N/A       **Pass**    **Fail**      **Base:** N/A       **Pass**    **Fail**

Safe & Sane label: \_\_\_\_\_ Firmly attached:

Leakage: \_\_\_\_\_ More or equal to 1/8 of height:

Fuse attached: \_\_\_\_\_

**Handles:** N/A     **Pass**    **Fail**      **Spinners:** N/A     **Pass**    **Fail**

Firmly attached: \_\_\_\_\_ Within 10' diameter circle:

At least 4" in length: \_\_\_\_\_

**Ignition Testing:** N/A     **Pass**    **Fail**      **Joy Smoke:** N/A     **Pass**    **Fail**

Fuses ignite time (3-9sec): \_\_\_\_\_ Color & configuration not

Visible burn out: \_\_\_\_\_ confused w/ m-80:

Visible blow out: \_\_\_\_\_ Any plastic in contact w/ product

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Remained stationary & upright: \_\_\_\_\_ combustion:

**Recorded Heat Temperature:** During ignition \_\_\_\_\_ After cool down (30 min)

**Notes:**

**Distributor Initials:** \_\_\_\_\_ **Inspector Initials:** \_\_\_\_\_ **Date:** \_\_/\_\_/\_\_\_\_

**Pass:**  **Fail:**  **Fail-Need Retest:**  **Re-test Failed:**

**Re-test Passed**

(Ord. No. 4664, § 1, 1-22-2019; Ord. No. 4779, § 1, 5-19-2020)

## **Chapter 13.16 SMOKING IN FOREST AREAS**

**Sections:**

### **13.16.010 Unlawful when.**

From and after the passage of this chapter, it shall be unlawful for any person to smoke any cigarette, cigar or pipe in any of the various forest areas of Clark County while said person is either hiking afoot or riding a saddle animal in any of said areas.

(Ord. 14 § 1, 1948)

### **13.16.020 Permissible in areas free from combustible materials.**

Nothing in this chapter shall be construed to prevent a person hiking or traveling afoot or riding a saddle animal in a forest area of Clark County from stopping in any place or area free from combustible materials or from alighting from any saddle animal which such person may be riding to smoke any cigarette, cigar or pipe in or upon any place or area within said forest area free from combustible materials providing said person uses due caution in putting out all matches, cigarette or cigar butts or burning ashes.

(Ord. 14 § 2, 1948)

### **13.16.030 Penalty for violation.**

Violation of this chapter shall constitute a misdemeanor and any person found guilty hereunder shall be punished by a fine not exceeding five hundred dollars or shall be imprisoned in the county jail not exceeding six months or by both such fine and imprisonment.

(Ord. 14 § 3, 1948)

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(Supp. No. 141)

Created: 2024-02-22 09:49:08 [EST]

