

ORDINANCE NO. ---
(Amending Henderson Municipal Code Chapter 15.32 Fire Code)

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF HENDERSON,
NEVADA, TO AMEND PORTIONS OF CHAPTER 15.32 – FIRE CODE – OF
THE HENDERSON MUNICIPAL CODE.

WHEREAS, pursuant to the provisions of the Henderson City Charter Section 2.160, the City Council is authorized to establish, by ordinance, a fire code and other regulations; and

WHEREAS, pursuant to NRS 477, regulations concerning matters relating to building codes, including, without limitation, matters relating to the construction, maintenance or safety of buildings, structures and property adopted by the State Fire Marshal are inapplicable in the City of Henderson, excluding buildings owned or occupied by the State or public schools, as Henderson has adopted the most recently published editions of the International Fire Code and the International Building Code; and

WHEREAS, a new International Fire Code was published October 30, 2020, which replaced the 2018 edition of the International Fire Code; and

WHEREAS, the City Council adopted Ordinance No. 3510 on August 7, 2018, with an effective date of February 4, 2019; and

WHEREAS, the City Council adopted Ordinance No. 3670 on March 3, 2020, with an effective date of March 6, 2020; and

NOW, THEREFORE, the City Council of the City of Henderson, Nevada, does ordain:

SECTION 1. This ordinance does not affect the provisions of Ordinance No. 3510, except as noted herein.

SECTION 2. This ordinance does not affect the provisions of Ordinance No. 3670, except as noted herein.

SECTION 3. Henderson Municipal Code, Chapter 15.32.010 – Short title - is hereby amended as follows:

15.32.010 Short title.

This chapter shall be known as the "City of Henderson Fire Code" 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 [2018] International Fire Code as adopted by the ordinance from which this chapter derives.

SECTION 4. Henderson Municipal Code, Chapter 15.32.020 – Adoption - is hereby amended as follows:

15.32.020 Adoption by reference.

The City of Henderson adopts as its Fire Code the "International Fire Code, [2018] 2021 Edition", as published by the International Code Council, Inc., Publications, 4051 West Flossmoor Road, Country Club Hills, IL.60478-5795, which is hereby designated as the City of Henderson Fire Code and by this designation and reference is hereby adopted and made a part of this chapter, as if it were fully set forth herein. This code is available online through the International Code Council website. [Three copies] One copy of this code [are] is on file in the office of the city clerk.

Where the phrase "NAME OF JURISDICTION" appears in the Fire Code, it shall be construed as referring to the City of Henderson. Where the phrase "AHJ" appears in the Fire Code, it shall be construed as referring to the City of Henderson as the Authority Having Jurisdiction (AHJ).

SECTION 5. Henderson Municipal Code, Chapter 15.32.030 – Code amended - is hereby amended as follows:

15.32.030 Code amended.

The City of Henderson adopts as an amendment to the International Fire Code, [Attachment A, a booklet entitled "2018 Southern Nevada Consensus Fire Code Amendments] A booklet entitled, "CITY OF LAS VEGAS & CITY OF HENDERSON AMENDMENTS TO THE 2021 INTERNATIONAL FIRE CODE" hereafter referred to as this booklet. This booklet is adopted in its entirety with the following exceptions as described in this section. This booklet is available on the City's website. [Three copies] One copy of this booklet [are] is on file in the office of the city clerk.

The [following amendments contained within Attachment A are] booklet is further amended as stated in section 15.32.050 of this chapter.

- [• Section 109.1 Board of Appeals.
- Section 503.2.7 Grade.
- Section 503.4.1 Traffic calming devices.
- Section 905.3 Required installations.
- NFPA 13D Section 6.5.7.

The City of Henderson further amends as an amendment to the 2018 International Fire Code, a revision to Section 5601.2.2 as follows:

5601.2.2 Sale and retail display. All 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 "Fire Prevention

Association of Nevada FPAN Guidelines for Fireworks". Stands or booths constructed of non-combustible materials providing an acceptable equivalent level of safety to the prescriptive FPAN guidelines may be approved by the fire code official.]

SECTION 6. Henderson Municipal Code, Chapter 15.32.050 – Amendments to the 2018 International Fire Code and to the 2018 Southern Nevada Consensus Fire code amendments is Code Adoption by reference - is hereby amended as follows:

[15.32.050 Amendments to the 2018 International Fire Code and to the 2018 Southern Nevada Consensus Fire Code Amendments.

Certain parts, articles, divisions, sections and/or subsections of the 2018 Edition of the International Fire Code and the 2018 Southern Nevada Consensus Fire Code Amendments are hereby supplemented, modified, amended or deleted as follows.

Section 103 DEPARTMENT OF FIRE PREVENTION.

Section 103 DEPARTMENT OF FIRE PREVENTION is re-titled and amended as follows:

Section 103 FIRE SAFETY

Section 103.1 General.

Section 103.1 General is amended as follows:

Section 103.1 General: Fire Safety is established within the City of Henderson. The function of this Division shall include assisting the Fire Chief in the administration and enforcement of the provisions of the Fire Code. Management oversight of Fire Safety is provided by the building official. The Fire Chief has the final decision making authority on all technical fire code issues.

Section 103.1.1 Fire Code Official.

A new Section 103.1.1 Fire Code Official is added as follows:

103.1.1 *Fire Code Official:* The Fire Chief may designate Fire Department and/or Fire Safety staff to assist him with his duties as the fire code official to perform the duties as set forth in the Fire Code.

Section 103.3.1 Fire Safety Personnel, Fire Department, and Police.

A new Section 103.3.1 Fire Safety Personnel, Fire Department and Police is added as follows:

Section 103.3.1 Fire Safety Personnel, Fire Department, and Police. The Chief, members of the Fire Department, and members of Fire Safety shall have the powers of a police officer in performing their duties under this code.

Section 104.3.2 Authority to Inspect.

A new Section 104.3.2 Authority to Inspect is added as follows:

Section 104.3.2 Authority to Inspect. Fire Safety and/or the Fire Department shall inspect, as often as necessary, buildings and premises, including such other hazards or appliances designated by the Fire Chief for the purpose of ascertaining and causing to be corrected any conditions which would reasonably tend to cause fire or contribute to its spread, or any violation of the purpose or provisions of the Fire Code and of any other law or standard affecting fire safety.

Section 104.8.1 Substantial Compliance Standard.

A new Section 104.8.1 Substantial Compliance Standard is added as follows:

Section 104.8.1 Substantial Compliance Standard. In the enforcement of specific provisions of the adopted technical codes and standards, the Fire Chief and the building official are authorized to grant minor variations from the strict application of specific code provisions where, in the opinion of the Fire Chief or the building official, the work is in substantial compliance with the intent of the adopted codes and standards.

Section 105.1.1.1 Permit and Service Fee Schedule.

A new Section 105.1.1.1 Permit and Service Fee Schedule is added as follows:

105.1.1.1 Permit and Service Fee Schedule. Fees for permits, inspections, plan checks and other services shall be as set forth in the Development Services schedule of fees, as adopted and amended from time to time by the Henderson City Council (HMC 15.02).

Section 105.6.30 Mobile food preparation vehicles.

Section 105.6.30 Mobile food preparation vehicles is amended as follows:

105.6.30 Mobile food preparation vehicles. A permit is required for mobile food preparation vehicles equipped with appliances that produce smoke or grease-laden vapors, where the main business office is located within the boundaries of this jurisdiction.

Section 105.6.58 Fire Pumps.

Section 105.6.58 Fire Pumps is added as follows:

105.6.58 Fire Pumps. An operational permit is required for facilities that contain a fire pump. See Chapter 9 of the 2018 International Fire Code and NFPA 20.

Section 105.6.59 Fire Suppression and Extinguishing Systems.

Section 105.6.59 Fire Suppression and Extinguishing Systems is added as follows:

105.6.59 Fire Suppression and Extinguishing Systems. An operational permit is required for facilities that contain a fire

suppression or extinguishing system. See Chapter 9 of the 2018 International Fire Code.

Section 105.6.60 Mobile fueling vehicle.

Section 105.6.60 Mobile fueling vehicle is amended as follows:

105.6.61 Mobile fueling vehicle. An operational permit is required to operate a mobile fueling vehicle where the main business office is located within the boundaries of this jurisdiction. See Chapter 57 of the 2018 International Fire Code.

Section 109 Board of appeals established.

Attachment A, Section 109 Board of appeals established is amended as follows:

109.1 Board of appeals established. A board of appeals is established in HMC 15.01.115.

Section 110.4 Violation penalties.

Section 110.4 Violation penalties is amended by adding a second paragraph 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 fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

The penalties referenced in the above paragraph are established in HMC 15.01.120.

Section 112.4 Failure to comply.

Section 112.4 Failure to comply is amended as follows:

112.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be deemed guilty of a misdemeanor and shall be liable for a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment.

Section 106.6 Fire Apparatus Standby

Section 106.6 Fire Apparatus Standby is added as follows:

106.6 Fire apparatus standby fee shall be three hundred (\$300) dollars per hour with a minimum of four (4) hours for each standby apparatus or unit. Fees for standby rescue unit(s) shall be one hundred and fifty (\$150) dollars per hour with a minimum of four (4) hours for each standby rescue.

Section 503.1.1 Buildings and facilities.

Section 503.1.1 Buildings and facilities is amended by adding a third exception as follows:

503.1.1 Buildings and facilities. *Approved* fire apparatus access 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.

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 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.
 - 1.2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
 - 1.3. There are not more than two Group R-3 or Group U occupancies.
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.
3. Where *approved* by the fire code official, driveways more than 150 feet (45 720 mm) in length providing fire apparatus access to facilities or buildings constructed in accordance with the International Residential Code, shall be permitted to be modified in accordance with the Fire Safety division design criteria for driveways.

Section 503.1.2 Additional access.

Section 503.1.2 Additional access is amended by adding a second paragraph and an exception as follows:

503.1.2 Additional access. The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

Approved secondary access shall be provided for 20 or more dwelling units, road(s) with dead ends or with a single point of access in excess of 600 feet (182 880 mm), and for all commercial and industrial developments.

Exception: Hillside Ordinance - HMC Title 19.

Section 503.2.1.1 Group R, Division 3 Residential Subdivisions.

A new section 503.2.1.1 Group R, Division 3 Residential Subdivisions is added as follows:

503.2.1.1 Group R, Division 3 Residential Subdivisions. For Group R, Division 3 Residential Subdivisions, the minimum width of a fire apparatus access road is 36 feet (10 973 mm), measured face of curb to face of curb (i.e., 20 feet (6096 mm) driving lane with 8 feet (2438 mm) of parking on each side).

Exception: For cluster housing developments, the last 150 feet (45 720 mm) may be reduced to 24 feet (7315 mm) in width (face of curb to face of curb) provided the homes are provided with an *approved* automatic sprinkler system and on-street parking is prohibited.

Section 503.2.7 Grade.

Attachment A, Section 503.2.7 Grade is amended by adding an exception as follows:

503.2.7 Grade. The grade of the fire apparatus access road shall not exceed 12 percent (.19 rad.). The maximum cross-slope curve shall not exceed two (2) percent (0.03 rad).

Exception: Hillside Ordinance - HMC Title 19.

Section 503.4.1 Traffic calming devices.

Attachment A, Section 503.4.1 Traffic calming devices is amended as follows:

503.4.1 Traffic calming devices. Traffic calming devices shall be prohibited unless *approved* by the Fire Chief.

Exception: Traffic calming devices that comply with the City of Henderson "Traffic Calming Policy for Public and Private Roadways within the City of Henderson".

The Fire Chief 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 Chief to unnecessarily hinder emergency apparatus response.

Section 506.1 Key Boxes. Where required.

Section 506.1 Key Boxes. Where required is amended as follows:

506.1 Key Boxes. Where required - Restricted access. Where access to or within a structure or area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. Buildings with fire sprinkler or fire alarm systems, or buildings not equipped with an exterior means of electrical

disconnect, shall be provided with a key box. The key box shall be of an approved type listed in accordance with UL 1037, and shall contain keys to gain necessary access as required by the fire code official.

Key boxes shall be located as follows:

1. Adjacent to the fire command center, if applicable.
2. Adjacent to the exterior entrance door to each fire sprinkler riser room.
3. Adjacent to the main entry for buildings with fire alarm systems or sprinklered buildings without a riser room.
4. Adjacent to the exterior entrance door to the fire pump room.
5. Adjacent to the exterior entrance door to each electrical equipment room provided with a service disconnect.
6. At each elevator bank at the lobby nearest the lowest level of fire department access.
7. Other locations where required by the fire code official.

Key boxes shall be installed within 5 feet (1524 mm) to 6 ½ feet (1981 mm) to the top of the box above finished grade.

In new and existing buildings, keys for all lockable doors, exterior or interior, utilized to access fire alarm panel(s), main fire sprinkler control valve(s) and fire pump(s) shall be placed into the key box. Contents of elevator boxes shall be limited to fire service elevator keys. Whenever locks are changed, the building owner or tenant shall replace old keys inside the key box with new keys.

Section 507.2.1.1 Post Indicator Valves.

A new section 507.2.1.1 Post Indicator Valves is added as follows:

507.2.1.1 Post Indicator Valves. Post indicator valve(s) shall be a minimum of five (5) feet (1524 mm) from the building footing.

Section 507.4 Water supply test.

Section 507.4 Water supply test is amended as follows:

507.4 Water supply test - Permit required. An operational permit is required to use or operate fire hydrants or valves controlling fire hydrants.

Section 507.4.1 Fire flow or Fire Sprinkler Design water supply information.

A new section 507.4.1 Fire flow or Fire Sprinkler Design water supply information is added as follows:

507.4.1 Fire flow or Fire Sprinkler Design water supply information. Water supply information for fire flow or fire sprinkler system design is provided by the City of Henderson. Requests for the available flow at 20 psi shall be submitted on the designated form to the City. When available, hydraulically modeled water supply information provided by the City shall be used as the basis for fire flow or fire sprinkler design.

The City will process the request and provide the applicant with the available flow based upon hydraulic modeling. The information provided by the City shall be valid for a period of six (6) months from the date of issuance.

The available flow provided is predicted using a computer hydraulic model of the City's water distribution system which is based on the City's GIS data and approved civil utility plans. The results are from the model's maximum day demand scenario with no part of the water system upstream of the fire flow demand point having less than 20 psi residual pressure. The available flow information is typically provided at a water main and does not account for any pressure losses downstream from that location (for example: from the service or hydrant lateral, backflow devices, meters or any onsite piping to the fire sprinkler system).

The City makes no guarantee that the flow is presently available, nor does it guarantee that these flows will be available in the future due to continued growth which places additional demands for water on our distribution system. Availability of flow is also subject to periodic shutdowns and variations required by the operation of the City's distribution system.

It is the contractor's responsibility to obtain the approved civil utility plans in order to verify the appropriate backflow device(s) have been or will be installed on the system and to verify the existing on-site pressure prior to final system acceptance. The Contractor shall notify the City's Fire Safety Division immediately upon discovery of any major pressure discrepancies.

Section 507.4.2 Water supply field test.

A new section 507.4.2 Water supply field test is added as follows:

507.4.2 Water supply field test. When approved, a manual water supply test may be permitted. A request for permit shall be made on a form provided by the City. Prior to performing the water supply field test, the Utilities Services Department must be notified at 702-267-5908. The fire code official shall be notified prior to the water supply test. The water supply field test shall be witnessed by the fire code official. The test shall be documented by the contractor. Water supply information obtained through this test shall be valid for a period of six (6) months.

Section 903.3.9 Calculations.

A new section 903.3.9 Calculations is added as follows:

903.3.9 Calculations. Hydraulically calculated fire sprinkler systems shall be designed to ensure the required system pressure is a minimum of ten (10) psi below the available supply pressure. The fire code official is authorized to approve lower pressures for 903.3.1.3 systems. The safety margin shall be shown on the plans.

Section 905.3 Required installations.

Attachment A, Section 905.3 Required installations is amended as follows:

905.3 Required installations. Standpipe systems shall be installed where required by Sections 905.3.1 through 905.3.9. Standpipe systems are allowed to be combined with *automatic sprinkler systems*.

Exception: Unless required by Section 905.3.9, standpipe systems are not required in Group R-3 occupancies.

The standpipe design shall be *approved by the fire code official*. Standpipes in buildings with fire pumps shall be automatic. Standpipes in buildings not subject to freezing shall be wet. Standpipes in areas subject to freezing shall be permitted to be manual dry when equipped with both KNOX locking caps and/or KNOX plugs for fire department connections (FDC) and hose valves that are acceptable to the *fire chief*.

Section 905.3.9 Residential Manual Dry Standpipes.

A new section 905.3.9 Residential Manual Dry Standpipes is added as follows:

905.3.9 Residential Manual Dry Standpipes. An approved residential manual dry standpipe system shall be installed for Group R-3 occupancies and structures constructed in accordance with the International Residential Code with driveways over 150 feet (45 720 mm) long to mitigate the lack of fire access for structures constructed in the hillside overlay (Hillside Ordinance - HMC Title 19).

Section 905.1.1 Signage.

A new section 905.1.1 Signage is added as follows:

905.1.1 Signage. In addition to all signage required by NFPA Standard 14, an approved architectural floor plan with room numbers shall be provided adjacent to each standpipe hose valve outlet. The plan shall graphically show the area reachable by 100 feet (30 480 mm) of hose from the specific outlet and the location of adjacent outlets (if any) and the distance away.

Section 5607.1.1 Blasting Regulations

A new section 5607.1.1 Blasting Regulations is added as follows:

5607.1.1 Blasting Regulations. Blasting for new development such as subdivisions and commercial uses is regulated in HMC 15.33 entitled "Blasting Regulations". The fire code official is authorized to exercise discretionary authority in utilizing any of the requirements from HMC 15.33 when evaluating other requests for blasting.

Section 5608.1.1 Additional Requirements for Outside Fireworks Displays.

A new section 5608.1.1 Additional Requirements for Outside Fireworks Displays is added as follows:

5608.1.1 Additional Requirements for Outside Fireworks Displays.
The following conditions apply to fireworks displays:

1. Fireworks displays shall not exceed twelve (12) times per calendar year at any one location.
2. Fireworks displays shall only occur on Friday and Saturday nights, with the sole exception of New Year's Eve and July 4th . On New Year's Eve and July 4th , fireworks must conclude by 12:30 a.m. (Including misfires). On any other occasion, fireworks must conclude by 10:30 p.m. (including misfires).
3. Notification of the fireworks display must be provided not more than 30 days and not less than ten (10) days prior to the fireworks display, to all occupancies and residences as specified in the permit. A copy of the notification plan shall be included with the permit application.
4. Fireworks displays will be cancelled or postponed when the wind velocity is in excess of 15 mph for aerial displays and when the wind velocity is in excess of 20 mph for ground displays. All advertising for the fireworks display shall contain a disclaimer advising that "The fireworks displays will be cancelled or postponed when the wind velocity is in excess of 15 mph".
5. Other fireworks displays for special events may be considered on an individual basis.
6. Notification to Henderson Fire Department Dispatch shall be made the day of the fireworks display. Notification by the permit holder shall be provided no later than four (4) hours prior to the fireworks display by calling dispatch at 702-267-4913.

5704.2.9.6.1 Locations where above-ground tanks are prohibited.

Section 5704.2.9.6.1 Locations where above-ground tanks are prohibited is amended as follows:

5704.2.9.6.1. Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks in control areas exceeding an aggregate capacity of 250 gallons (946 L) outside of buildings is prohibited for the protection of heavily populated or congested areas.

Exception: When approved by the planning or zoning authority and when approved by the *fire code official*. Note: The fire code official may require UL2085 listed protected tanks or other appropriate mitigation measures.

Table B105.1(1)

Attachment A, Table B105.1(1) is revised and replaced 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	MINIMUM FIRE	FLOW
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CALCULATION AREA (square feet)	FLOW (gallons per minute)	DURATION (hours)
0-3,600	1,000	1
3,601 and greater	½ Value in Table B105.1(2) but not less than 1,000	Duration in Table B105.1(2) at the required fire-flow rate

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

NFPA 13D Section 6.5.7.

Attachment A, Section 6.5.7 is revised and replaced as follows:

6.5.7 A supply line from the sprinkler system loop shall feed into the toilet in the master bathroom. In multi-level dwellings, if the lowest protected level is below the elevation of the water supply, a supply line shall also feed into a toilet at that level.

NFPA 20 Section 4.2.1.1 Pump Shutoff Pressure.

NFPA 20 Section 4.2.1.1 Pump Shutoff Pressure is added as follows:

4.2.1.1 When selecting a fire pump the designer may utilize the portion of the pump curve between 90 and 140 percent of the rated capacity based on system demand. The net pump shutoff (churn) pressure plus the maximum static suction pressure, adjusted for elevation, shall not exceed the pressure for which the system components are rated. Fire pumps shall be sized to supply the most demanding system without oversizing the fire pump.]

15.32.050 City of Henderson amendments.

Certain parts, articles, divisions, sections and/or subsections and tables of the International Fire Code and the booklet are hereby amended as follows.

Section 103 CODE COMPLIANCE AGENCY.

Section 103 CODE COMPLIANCE AGENCY is re-titled and amended as follows:

Section 103 FIRE SAFETY

Section 103.1 General.

Section 103.1 General is amended as follows:

Section 103.1 General: Fire safety is established within the City of Henderson. The function of this division shall include assisting the fire chief in the administration and enforcement of the provisions of the fire code. Management oversight of fire safety is provided by the building official. The fire chief has the final decision-making authority on all technical fire code issues.

Section 103.2.1 Fire Code Official.

A new Section 103.2.1 Fire code official is added as follows:

103.2.1 Fire code official: The fire chief may designate fire department and/or fire safety staff to assist him with his duties as the fire code official to perform the duties as set forth in the fire code.

Section 103.3.1 Fire Safety Personnel, Fire Department, and Police.

A new Section 103.3.1 Fire safety personnel, fire department and police is added as follows:

Section 103.3.1 Fire safety personnel, fire department, and police. The fire chief, members of the fire department, and members of fire safety shall have the powers of a police officer in performing their duties under this code.

Section 104.3.2 Authority to Inspect.

A new Section 104.3.2 Authority to inspect is added as follows:

Section 104.3.2 Authority to inspect. Fire safety and/or the fire department shall inspect, as often as necessary, buildings and premises, including such other hazards or appliances designated by the fire chief for the purpose of ascertaining and causing to be corrected any conditions which would reasonably tend to cause fire or contribute to its spread, or any violation of the purpose or provisions of the fire code and of any other law or standard affecting fire safety.

Section 104.9.1 Substantial Compliance Standard.

A new Section 104.9.1 Substantial compliance standard is added as follows:

Section 104.9.1 Substantial compliance standard. In the enforcement of specific provisions of the adopted technical codes and standards, the fire chief and the building official are authorized to grant minor variations from the strict application of specific code provisions where, in the opinion of the fire chief or the building official, the work is in substantial compliance with the intent of the adopted codes and standards.

Section 105.1.1.1 Permit and Service Fee Schedule.

A new Section 105.1.1.1 Permit and service fee schedule is added as follows:

105.1.1.1 Permit and service fee schedule. Fees for permits, inspections, plan checks and other services shall be as set forth in the development services schedule of fees, as adopted and amended from time to time by the Henderson City Council (HMC 15.02).

Section 105.5.60 Fire Pumps.

Section 105.5.60 Fire pumps is added as follows:

105.5.60 Fire pumps. An operational permit is required for facilities that contain a fire pump. See Chapter 9 of the 2021 International Fire Code and NFPA 20.

Section 105.5.61 Fire Suppression and Extinguishing Systems.

Section 105.5.61 Fire suppression and extinguishing systems is added as follows:

105.5.61 Fire suppression and extinguishing systems. An operational permit is required for facilities that contain a fire suppression or extinguishing system. See Chapter 9 of the 2021 International Fire Code.

Section 105.5.62 Mobile fueling vehicle.

Section 105.5.62 Mobile fueling vehicle is amended as follows:

105.5.62 Mobile fueling vehicle. An operational permit is required to operate a mobile fueling vehicle where the main business office is located within the boundaries of this jurisdiction. See Chapter 57 of the 2021 International Fire Code.

Section 105.5.63 Operational permit for new and existing buildings.

Section 105.5.63 Operational permit for new and existing buildings is added as follows:

105.5.63 Operational permit for new and existing buildings. An annual, biennial or triennial operational permit is required for new and existing buildings. See section 324.

Exception: One- and two-family dwellings; townhouses; and buildings that are regulated by NRS/NAC 477 or NRS/NAC 499.

Section 107.6 Fire Apparatus Standby

Section 107.6 Fire apparatus standby is added as follows:

107.6 Fire apparatus standby fee shall be five hundred (\$500) dollars per hour with a minimum of four (4) hours for each standby apparatus or unit. Fees for standby rescue unit(s) shall be two hundred and fifty (\$250) dollars per hour with a minimum of four (4) hours for each standby rescue.

Section 111.1 Board of appeals established

Section 111.1 Board of appeals established is amended as follows:

111.1 Board of appeals established. A board of appeals is established in HMC 15.01.115.

Section 112.4 Violation Penalties.

Section 112.4 Violation penalties is amended by adding a second paragraph as follows:

112.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in

violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

The penalties referenced in the above paragraph are established in HMC 15.01.120.

Section 113.4 Failure to comply.

Section 113.4 Failure to comply is amended as follows:

113.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be deemed guilty of a misdemeanor and shall be liable for a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment.

Section 324 Periodic fire safety inspections.

A new section 324 periodic fire safety inspections is added as follows:

324 Periodic Fire Safety Inspections.

324.1 General. Periodic fire safety inspections shall be in accordance with this section.

Exceptions:

1. Where approved by the fire code official.
2. Buildings designed and constructed in accordance with the International Residential Code that are not regulated by NRS/NAC 477 or NRS/NAC 499.

324.2 Permits. Permits shall be required as set forth in this Section and Section 105.5.

324.3 Fire safety inspection frequency. Periodic fire safety inspections of new and existing buildings shall be performed on an annual, biennial, triennial or other frequency based on hazards, risks and staffing as determined by the City's fire safety division.

Section 503.1.1 Buildings and facilities.

Section 503.1.1 Buildings and facilities is amended by adding a third exception as follows:

503.1.1 Buildings and facilities. Approved fire apparatus access 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.

Exceptions:

1. Where suitable mitigation is provided through an acceptable alternate method or code modification the fire code official is authorized to increase the dimension of 150 feet (45 720 mm).
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.
3. Where approved by the fire code official for development within the Hillside Overlay District – HMC Title 19, driveways more than 150 feet (45 720 mm) in length providing fire apparatus access to facilities or buildings constructed in accordance with the International Residential Code, shall be permitted to be modified in accordance with the Fire Safety division design criteria for driveways.

Section 503.1.2 Additional access.

Section 503.1.2 Additional access is amended by adding a second paragraph and an exception as follows:

503.1.2 Additional access. The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

Approved secondary access shall be provided for 20 or more dwelling units, road(s) with dead ends or with a single point of access more than 600 feet (182 880 mm), and for all commercial and industrial developments.

Exception: Hillside Overlay District - HMC Title 19.

Section 503.2.1.1 Group R, Division 3 Residential Subdivisions.

A new section 503.2.1.1 Group R, Division 3 Residential Subdivisions is added as follows:

503.2.1.1 Group R, Division 3 Residential Subdivisions. For Group R, Division 3 Residential Subdivisions, the minimum width of a fire apparatus access road is 36 feet (10 973 mm), measured face of curb to face of curb (i.e., 20 feet (6096 mm) driving lane with 8 feet (2438 mm) of parking on each side).

Exceptions:

1. For cluster housing developments, the last 150 feet (45 720 mm) may be reduced to 24 feet (7315 mm) in width (face of curb to face of curb) provided the homes are provided with an approved automatic sprinkler system and on-street parking is prohibited.
2. Hillside Overlay District - HMC Title 19.

Section 503.2.7 Grade.

Section 503.2.7 Grade is amended by adding an exception as follows:

503.2.7 Grade. The grade of the fire apparatus access road shall not exceed 12 percent (.19 rad.). The maximum cross-slope curve shall not exceed two (2) percent (0.03 rad).

Exception: Hillside Overlay District - HMC Title 19.

Section 506.1 Key Boxes. Where required.

Section 506.1 Key Boxes. Where required is amended as follows:

506.1 Key Boxes. Where required - Restricted access. Where access to or within a structure or area is restricted because of secured openings or where immediate access is necessary for lifesaving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. Buildings with fire sprinkler or fire alarm systems, or buildings not equipped with an exterior means of electrical disconnect, shall be provided with a key box. The key box shall be of an approved type listed in accordance with UL 1037 and shall contain keys to gain necessary access as required by the fire code official.

Key boxes shall be located as follows:

1. Adjacent to the fire command center, if applicable.
2. Adjacent to the exterior entrance door to each fire sprinkler riser room.
3. Adjacent to the main entry for buildings with fire alarm systems or sprinklered buildings without a riser room.
4. Adjacent to the exterior entrance door to the fire pump room.
5. Adjacent to the exterior entrance door to each electrical equipment room provided with a service disconnect.
6. At each elevator bank at the lobby nearest the lowest level of fire department access.
7. Other locations where required by the fire code official.

Key boxes shall be installed within 5 feet (1524 mm) to 6 ½ feet (1981 mm) to the top of the box above finished grade.

In new and existing buildings, keys for all lockable doors, exterior or interior, utilized to access fire alarm panel(s), main fire sprinkler control valve(s) and fire pump(s) shall be placed into the key box. Contents of elevator boxes shall be limited to fire service elevator keys. Whenever locks are changed, the building owner or tenant shall replace old keys inside the key box with new keys.

Section 507.2.1.1 Post Indicator Valves.

A new section 507.2.1.1 Post Indicator Valves is added as follows:

507.2.1.1 Post Indicator Valves. Post indicator valve(s) shall be a minimum of five (5) feet (1524 mm) from the building footing.

Section 507.4 Water supply test.

Section 507.4 Water supply test is amended as follows:

507.4 Water supply test - Permit required. A construction permit is required to use or operate fire hydrants or valves controlling fire hydrants.

Section 507.4.1 Fire flow or Fire Sprinkler Design water supply information.

A new section 507.4.1 Fire flow or Fire Sprinkler Design water supply information is added as follows:

507.4.1 Fire flow or Fire Sprinkler Design water supply information. Water supply information for fire flow or fire sprinkler system design is provided by the City of Henderson. Requests for the available flow at 20 psi shall be submitted on the designated form to the City. When available, hydraulically modeled water supply information provided by the City shall be used as the basis for fire flow or fire sprinkler design.

The City will process the request and provide the applicant with the available flow based upon hydraulic modeling. The information provided by the City shall be valid for a period of six (6) months from the date of issuance.

The available flow provided is predicted using a computer hydraulic model of the City's water distribution system which is based on the City's GIS data and approved civil utility plans. The results are from the model's maximum day demand scenario with no part of the water system upstream of the fire flow demand point having less than 20 psi residual pressure. The available flow information is typically provided at a water main and does not account for any pressure losses downstream from that location (for example: from the service or hydrant lateral, backflow devices, meters or any onsite piping to the fire sprinkler system).

The City makes no guarantee that the flow is presently available, nor does it guarantee that these flows will be available in the future due to continued growth which places additional demands for water on our distribution system. Availability of flow is also subject to periodic shutdowns and variations required by the operation of the City's distribution system.

It is the contractor's responsibility to obtain the approved civil utility plans to verify the appropriate backflow device(s) have been or will be installed on the system and to verify the existing on-site pressure prior to final system acceptance. The Contractor shall notify the City's fire safety staff immediately upon discovery of any major pressure discrepancies.

Section 507.4.2 Water supply field test.

A new section 507.4.2 Water supply field test is added as follows:

507.4.2 Water supply field test. Water supply field testing is strongly discouraged. Prior to applying for a permit, specific acceptance in writing by the fire code official is required. This acceptance shall be provided with the permit application. When approved, a manual water supply test may be permitted. A

request for permit shall be made on a form provided by the City. Prior to performing the water supply field test, the Utilities Services Department must be notified at 702-267-5908. The fire code official shall be notified prior to the water supply test. The water supply field test shall be witnessed by the fire code official. The test shall be documented by the contractor. Water supply information obtained through this test shall be valid for a period of six (6) months.

Section 507.5.4.1 Debris Caps

A new section 507.5.4.1 Debris caps is added as follows:

507.5.4.1 Debris caps. Debris caps are required to be installed beneath the road caps of all private fire systems and fire hydrant water valves to prevent the buildup of obstructions such as dirt, rocks, and plant matter.

Section 903.3.1.3 NFPA 13D sprinkler systems.

A section 903.3.1.3 NFPA 13D sprinkler systems is amended as follows:

903.3.1.3 NFPA 13D sprinkler systems. Automatic sprinkler systems installed in group R-3; Group R-4, condition 1 shall be permitted to be installed throughout in accordance with NFPA 13D, 2019 edition. Automatic sprinkler systems installed in one- and two-family dwellings; and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D, 2016 edition or 2019 edition including local amendments.

Section 903.3.9 Calculations.

A new section 903.3.9 Calculations is added as follows:

903.3.9 Calculations. Hydraulically calculated fire sprinkler systems shall be designed to ensure the available supply pressure is a minimum of ten (10) psi above the required system pressure. The fire code official is authorized to approve a lower safety margin for 903.3.1.3 systems. The safety margin shall be shown on the plans.

Section 905.3 Required installations.

Section 905.3 Required installations is amended as follows:

905.3 Required installations. Standpipe systems shall be installed where required by Sections 905.3.1 through 905.3.10. Standpipe systems are allowed to be combined with automatic sprinkler systems.

Exception: Unless required by Section 905.3.10, standpipe systems are not required in Group R-3 occupancies.

The standpipe design shall be approved by the fire code official. Standpipes in buildings with fire pumps shall be automatic.

Exceptions:

1. When approved by the fire code official, standpipes in buildings not subject to freezing shall be wet and shall be permanently connected to a water supply.
2. When approved by the fire code official, standpipes in buildings subject to freezing shall be dry with supervised air or nitrogen and shall be permanently connected to a water supply.
3. When approved by the fire code official, standpipes in areas subject to freezing shall be permitted to be manual dry when equipped with both KNOX locking caps and/or KNOX plugs for fire department connections (FDC).

Section 905.3.10 Residential Manual Dry Standpipes.

A new section 905.3.10 Residential Manual Dry Standpipes is added as follows:

905.3.10 Residential Manual Dry Standpipes. An approved residential manual dry standpipe system shall be installed for Group R-3 occupancies and structures constructed in accordance with the International Residential Code with driveways over 150 feet (45 720 mm) long to mitigate the lack of fire access for structures constructed in the hillside overlay (Hillside Overlay District - HMC Title 19).

Section 905.1.1 Signage.

A new section 905.1.1 Signage is added as follows:

905.1.1 Signage. In addition to all signage required by NFPA Standard 14, an approved architectural floor plan with room numbers shall be provided adjacent to each standpipe hose valve outlet. The plan shall graphically show the area reachable by 100 feet (30 480 mm) of hose from the specific outlet and the location of adjacent outlets (if any) and the distance away.

Section 912.1.1 Required inlets.

A new section 912.1.1 Required inlets is added as follows:

912.1.1 Required inlets. A 2½-inch (65 mm) inlet shall be provided for each 250 gpm of fire sprinkler demand or fraction thereof up to a maximum of 4 inlets.

Section 5601.2.2 Sale and retail display.

Section 5601.2.2 Sale and retail display is amended as follows:

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

Exceptions:

1. Consumer fireworks 1.4G (safe and sane) offered for sale at portable retail fireworks stands that are in accordance with the current "Fire Prevention

Association of Nevada FPAN Guidelines for Fireworks". Stands or booths constructed of non-combustible materials providing an acceptable equivalent level of safety to the prescriptive FPAN guidelines may be approved by the fire code official.

2. Novelties complying with NFPA 1124 section C.3.2 & C.3.3 including: party popper; snapper; toy smoke devices; snakes, glow worms; wire sparklers, dipped sticks; and toy caps.

Section 5607.1.1 Blasting Regulations

A new section 5607.1.1 Blasting Regulations is added as follows:

5607.1.1 Blasting Regulations. Blasting for new development such as subdivisions and commercial uses is regulated in HMC 15.33 entitled "Blasting Regulations". The fire code official is authorized to exercise discretionary authority in utilizing any of the requirements from HMC 15.33 when evaluating other requests for blasting.

Section 5608.1.1 Additional Requirements for Outside Fireworks Displays.

A new section 5608.1.1 Additional Requirements for Outside Fireworks Displays is added as follows:

5608.1.1 Additional Requirements for Outside Fireworks Displays. The following conditions apply to fireworks displays:

1. Fireworks displays shall not exceed twelve (12) times per calendar year at any one location.
2. Fireworks displays shall only occur on Friday and Saturday nights, with the sole exception of New Year's Eve and July 4th. On New Year's Eve and July 4th, fireworks must conclude by 12:30 a.m. (Including misfires). On any other occasion, fireworks must conclude by 10:30 p.m. (including misfires).
3. Notification (a vicinity map depicting the subject site, the proposed date(s), time(s) and contact information) shall be provided by the applicant to the mailing addresses on the list provided by staff via first-class mail postmarked not more than thirty (30) days and not less than ten (10) days in advance of the fireworks display. Notification shall also be provided to City of Henderson fire safety staff and community police staff at least 10 calendar days prior to the fireworks display date. A copy of the notification plan shall be included with the permit application.
4. Fireworks displays will be cancelled or postponed when the wind velocity is more than 15 mph for aerial displays and when the wind velocity is more than 20 mph for ground displays. All advertising for the fireworks display shall contain a disclaimer advising that "The fireworks displays will be cancelled or postponed when the wind velocity is in excess of 15 mph".
5. Other firework displays for special events may be considered

on an individual basis.

6. Notification to Henderson Fire Department Dispatch shall be made the day of the fireworks display. Notification by the permit holder shall be provided no later than four (4) hours prior to the fireworks display by calling dispatch at 702-267-4913.

5704.2.9.6.1 Locations where above-ground tanks are prohibited.

Section 5704.2.9.6.1 Locations where above-ground tanks are prohibited is amended as follows:

5704.2.9.6.1. Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks in control areas exceeding an aggregate capacity of 250 gallons (946 L) outside of buildings is prohibited for the protection of heavily populated or congested areas.

Exception: When approved by the planning or zoning authority and when approved by the fire code official. Note: The fire code official may require UL2085 listed protected tanks or other appropriate mitigation measures.

Table B105.1(1)

Table B105.1(1) is revised and replaced as follows:

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

<u>FIRE FLOW</u> <u>CALCULATION</u> <u>AREA</u> <u>(square feet)</u>	<u>MINIMUM FIRE</u> <u>FLOW (gallons</u> <u>per minute)</u>	<u>FLOW</u> <u>DURATION</u> <u>(hours)</u>
<u>0-3,600</u>	<u>1,500</u>	<u>1</u>
<u>3,601 and</u> <u>greater</u>	<u>½ Value in Table</u> <u>B105.1(2) but not</u> <u>less than 1,500</u>	<u>Duration in Table</u> <u>B105.1(2) at the</u> <u>required fire-flow</u> <u>rate</u>

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

NFPA 13D Section 6.5.7.

Section 6.5.7 is revised and replaced as follows:

6.5.7 A supply line from the sprinkler system loop shall feed into the toilet in the master bathroom. In multi-level dwellings, if the lowest protected level is below the elevation of the water supply, a supply line shall also feed into a toilet at that level.

NFPA 13R Section 7.5.

Section 7.5 is revised and replaced as follows:

7.5 Protection Matrix for Group R Division 3 Occupancies. When a sprinkler system is being installed the design requirements in Table 7.5 shall be applied.

Table 7.5 Protection Matrix for Group R Division 3 Occupancies and Building Built Under the IRC⁴

<u>Building Area SIZE RANGE⁶</u>	<u>Residential SYSTEM TYPE^{1,3}</u>	<u>SEPARATE SPRINKLER LEAD-IN REQUIRED⁵</u>	<u>MINIMUM UNDERGROUND PIPE SIZE⁵</u>	<u>MINIMUM WATER METER SIZE⁵</u>	<u>SPRINKLERS REQUIRED IN AREAS SUBJECT TO FREEZING.</u>
<u>< 3,600 sq.ft.</u>	<u>Standard NFPA 13D²</u>	<u>See NFPA 13D for design requirements</u>			
<u>> 3,600 sq.ft. and < 10,000 sq.ft.</u>	<u>Enhanced NFPA 13D^{1,2}</u>	<u>See NFPA 13D for design requirements</u>			
<u>> 10,000 sq.ft. and < 15,000 sq.ft.</u>	<u>Enhanced NFPA 13R¹</u>	<u>Yes⁷</u>	<u>N/A</u>	<u>N/A</u>	<u>Yes</u>
<u>> 15,000 sq.ft.</u>	<u>Modified NFPA 13¹</u>	<u>See NFPA 13 for design requirements</u>			

N/A = Not Applicable

1. This constitutes a building "protected with an approved fire sprinkler system" per the IFC.
2. Domestic demand of 5 gpm is required to be added to the sprinkler demand in the hydraulic calculations.
3. Free-standing detached buildings with one or more sleeping rooms shall be protected by an Enhanced NFPA 13D system.
4. Excluding Group Care Homes.
5. U.G. lead-in shall be the minimum size required hydraulically as proven by the sprinkler contractor and shall be hydrostatically tested and flushed, witnessed by the fire dept.
6. Building area is defined as all areas under roof except for porches, patios, balconies, carports and porte cocheres.
7. A fire department connection and separate lead-in are not required when calculations acceptable to the AHJ prove that an 1-1/2" residential fire meter can adequately supply the system.

NFPA 14 11.5.2.2

A new section 11.5.2.2 is added as follows:

11.5.2.2 The installing contractor is responsible for providing all equipment for the acceptance testing of a manual standpipe acceptable to the authority having jurisdiction.

NFPA 72 Section 907.5.2.2.6 through 907.5.2.2.6.3 Intelligibility.

Section 907.5.2.2.6 Intelligibility is amended as follows:

907.5.2.2.6 Intelligibility. Emergency voice/alarm communication system plan submittals to the fire code official shall indicate graphically and in tabular form each acoustically distinguishable space (ADS) as described in NFPA 72 Annex D. ADS where intelligibility is required shall be designated and shall be approved by the fire code official. ADS that require intelligibility testing shall be designated.

Note: No changes to 907.5.2.2.6.1 as published in the booklet.

907.5.2.2.6.2 Testing. Where intelligibility testing is required, intelligibility shall be determined through quantitative measurements. Test results shall be provided to the fire safety inspector prior to system acceptance testing.

Note: No changes to 907.5.2.2.6.3 as published in the booklet.

SECTION 7. Henderson Municipal Code, Chapter 15.32.120 – Effective date - is amended as follows:

15.32.120 Effective date.

This chapter shall become effective on ~~[February 4, 2019]~~ March 23, 2023.

SECTION 8. If any section, subsection, sentence, clause, phrase, provision or portion of this Ordinance, or the application thereof to any person or circumstances, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions or provisions of this Ordinance or their applicability to distinguishable situations or circumstances.

SECTION 9. All ordinances, or parts of ordinances, sections, subsections, phrases, sentences, clauses or paragraphs contained in the Municipal Code of the City of Henderson, Nevada, in conflict herewith are repealed and replaced as appropriate.

SECTION 10. A copy of this Ordinance shall be filed with the office of the City Clerk, and notice of such filing shall be published once by title in the Las Vegas Review-Journal, a newspaper having general circulation in the City of Henderson, at least ten (10) days prior to the adoption of said Ordinance (Initial Publication). Following adoption by the City Council, this Ordinance shall be published by title together with the names of the Council members voting for or against passage (Final Publication). This Ordinance is scheduled for Final Publication on September 16, 2022, in the Las Vegas Review-Journal, at which time it will become effective.

END OF ORDINANCE.