



STAFF REPORT

Report To: Board of Supervisors

Meeting Date: June 2, 2016

Staff Contact: Robert Schreihans, rschreihans@carson.org

Agenda Title: For Possible Action: To introduce, on first reading, Bill No.____, an ordinance amending the Carson City Municipal Code Title 14 Chapter 14.02 - in order to make it consistent with NAC 477. (Robert Schreihans)

Staff Summary: This will be the first reading of an ordinance to update the currently adopted Fire Code, in order to be consistent with changes to the Nevada State Fire Marshal Regulations NAC 477.

Agenda Action: Ordinance - First Reading

Time Requested: 10 minutes

Proposed Motion

I move to introduce, on first reading, Bill No.____, an ordinance amending the Carson City Municipal Code Title 14 Chapter 14.02 - in order to make it consistent with NAC 477.

Board's Strategic Goal

Safety

Previous Action

N/A

Background/Issues & Analysis

The Carson City Fire Department adopted the regional Northern Nevada Fire Code Amendments in 2013, as part of a comprehensive fire code update package to the 2012 International Codes. In 2015, the Nevada State Fire Marshal Division adopted new codes establishing State minimums for fire codes. Due to these changes, the area Fire Departments met and developed an updated Northern Nevada Fire Code Amendment package based on input from the sprinkler industry and fire protection subject matter experts. As a result, our current code needs to be modified to be in line with the current NAC 477. There are two (2) significant changes. The first is the technical standard used for apartments, hotels, motels and other commercial residential occupancies will now be NFPA 13R for those residential occupancies up to 4 stories. The previous standard used was NFPA 13 - which is the same standard used for all commercial space, such as factories and warehouses. The use of NFPA 13R will allow for a lower cost system to be installed, since the water demands are much less. The threshold requirements for fire sprinklers are unchanged. The technical standards are national consensus documents. The second change is to the definitions of I-1 and I-2 occupancies (institutional) to be in line with NAC 447. There is also a clean up of language to provide consistency in the definition of the Fire Code Official.

Applicable Statute, Code, Policy, Rule or Regulation

CCMC Title 14.02.005 and Title 14.02.010

Financial Information

Is there a fiscal impact? Yes No

If yes, account name/number: N/A

Is it currently budgeted? Yes No

Explanation of Fiscal Impact:

Alternatives

The board may deny the proposed changes.

Board Action Taken:

Motion: _____

1) _____

2) _____

Aye/Nay

(Vote Recorded By)

ORDINANCE NO. _____
BILL NO. XXX

AN ORDINANCE AMENDING THE CARSON CITY MUNICIPAL CODE TITLE 14 CHAPTER 14.02 INTERNATIONAL FIRE CODE, BY AMENDING SECTION 14.02.005, BY CHANGING NORTHERN NEVADA FIRE CODE AMENDMENTS ADOPTED BY REFERENCE AND BY AMENDING SECTION 14.02.010 BY CHANGING NORTHERN NEVADA FIRE CODE AMENDMENTS ADOPTED BY REFERENCE AND BY ADDING A DEFINITION OF THE FIRE CODE OFFICIAL AND OTHER MATTERS PROPERLY RELATED THERETO.

THE BOARD OF SUPERVISORS OF CARSON CITY DO ORDAIN:

Section I: Title 14, Chapter 14.02 of the Carson City Municipal code is hereby amended as follows:

Chapter 14.02 INTERNATIONAL FIRE CODE

Sections:

14.02.005 Codes adopted.
14.02.010 International Fire Code amendments

Section II: Title 14, Chapter 14.02.005 of the Carson City Municipal Code is hereby amended as follows:

14.02.005 Adopted Codes

The following nationally recognized codes and local amendments are hereby adopted by Carson City, together with the supplements, listed changes, additions and deletions as noted below. One (1) copy of each document noted is on file in the office of the Carson City Clerk/Recorder and one (1) copy is on file and available for viewing at the Carson City Fire Department.

- A. 2012 Edition, International Fire Code (IFC), chapters 1 through 80 and Appendices B, C, D and F with the additions, deletions and changes prescribed in this ordinance.
- B. 2012 Edition of the International Wildland-Urban Interface Code, chapters 1 through 7 and Appendices A, B and C with the additions, deletions and changes prescribed in this ordinance.
- C. ~~2012 Northern Nevada Fire Amendments.~~ 2012 Northern Nevada Fire Amendments Revision 1 to Part 1 May 1, 2016, 2012 Northern Nevada Fire Amendments Part 2 May 13, 2013.

Section III: Title 14, Chapter 14.02.010 of the Carson City Municipal Code is hereby amended as follows:

14.02.010 International Fire Code (IFC) Amendments

The provisions of the 2012 IFC shall be modified as noted below:

A. Section 101.1-Title.

Section 101.1 of the International Fire Code is amended to read as follows:

These regulations shall be known as the fire code of Carson City, hereinafter referred to as “this code.”

B. Section 102.7 Referenced codes and standards.

Section 102.7 of the International Fire Code is amended to read as follows:

The codes and standards referenced in this code shall be those that are listed in Chapter 80, except that the most current version of each of those codes and standards shall apply. Where this code refers to the International Plumbing Code, the adopted version of the Uniform Plumbing Code will be substituted. Where this code refers to the International Electrical Code, the adopted version of the National Electric Code will be substituted.

Such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.

C. Chapter 1 Section 103.2-Appointment.

Section 103.2 of the International Fire Code is amended to read as follows:

The fire code official is designated as the Fire Chief/or Fire Marshal of the Carson City fire department.

D. Chapter 1 Section 105.6. -Fire hydrants and valves.

Section 105.6.15 of the International Fire Code is amended to read as follows:

No person or persons shall use or take water from or tamper with any fire hydrant without first obtaining authority from the utility department in the form of a written permit to be issued for that purpose. The permit shall be issued in such form and subject to such regulations and conditions related to instruction in the use and operation of fire hydrants as the utility department may reasonably prescribe for the purpose of protecting and avoiding damage to such fire hydrants and connected facilities.

E. Chapter 1 Section 105.7-Required construction permits.

Section 105.7 of the International Fire Code is amended to read as follows:

The fire code official is required to issue construction permits for work as set forth in Section 105.7.1 through 105.7.12. A permit/plan review fee may be charged for the issuance of such permits.

NAYS: SUPERVISORS: _____

ABSENT: SUPERVISORS: _____

Robert L. Crowell, Mayor

ATTEST:

SUSAN MERRIWETHER
CLERK/RECORDER.

This ordinance shall be in force and effect from and after the 1st day of the month of July of the year, 2016.

2012 NORTHERN NEVADA FIRE AMENDMENTS

2012 INTERNATIONAL FIRE CODE

**Published by the Northern Nevada Chapter of the International Code Council:
REVISION 1 TO PART 1: May 1, 2016**

Carson City Fire Department
777 S. Stewart St.
Carson City, NV 89701

East Fork Fire Protection District
1694 County Road
Minden, NV 89423

North Lake Tahoe Fire Protection District
866 Oriole Way
Incline Village, NV 89451

North Lyon County Fire Protection District
195 East Main
Fernley, Nevada 89408

Reno Fire Department
1 E First Street, 4th Floor
Reno, NV 89501

Truckee Meadows Fire Protection District
1001 E Ninth Street, Bldg. D
Reno, NV 89512

Sparks Fire Department
1605 Victorian Ave
Sparks, NV 89431

Storey County Fire Department
145 North "C" Street
Virginia City, NV 89440

Tahoe Douglas Fire Protection District
P.O. Box 919
Zephyr Cove, NV 89448

PREFACE

This document comprises Revision 1 of the Northern Nevada Amendments to the following codes:

2012 International Fire Code as published by the International Code Council.

It was created by the organizations listed on the cover page with the support of the Northern Nevada Chapter of the International Code Council as a document to be adopted by reference. These provisions are not code unless adopted and codified by governmental jurisdictions. This document is available to be adopted as code by any jurisdiction without permission or approval from the organizations listed.

To obtain copies of this document, please contact the Northern Nevada Chapter of the International Code Council at PO Box 2481 Reno, NV 89505 or visit nnicc.org.

Notes: Deleted language has been ~~stricken through~~.

Added language has been underlined.

Where space allows the entire section is shown for context.

This document consists of two parts. Either part can be adopted separately or together.

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PART ONE

2012 International Fire Code

Section 202 Definitions.

Amend Section 202 to read as follows:

HIGH-RISE BUILDING. A building with an occupied floor located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access.

Institutional Group I-1. This occupancy shall include buildings, structures or parts thereof for more than 16 persons who reside on a 24-hour basis in a supervised environment and receive custodial care. The persons receiving care are capable of self-preservation. ~~All portions of a care facility which houses patients or residents which is classified by the State Board of Health as 'Category 2,' and which has an occupant load of more than 10 residents, is classified as an 'I-1' occupancy classification.~~ This group shall include, but not be limited to, the following:

- Alcohol and drug centers
- Assisted living facilities
- Congregate care facilities
- Convalescent facilities
- Group homes
- Half-way houses
- Residential board and custodial care facilities
- Social rehabilitation facilities

Five or fewer persons receiving care. A facility such as the above with five or fewer persons receiving such care shall be classified as Group R-3 or shall comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or *International Residential Code* Section P2904.

Six to sixteen persons receiving care. A facility such as above, housing at least six and not more than 16 persons receiving such care, shall be classified as Group R-4.

Institutional Group I-2,

Amend the definition of Institutional Group I-2 by adding an additional paragraph as follows:

“All portions of a care facility which houses patients or residents which are classified by the State Board of Health as a ‘Category 2 resident’ and which has an occupant load of more than 10 residents, is classified as an ‘I-2’ occupancy classification.”

Institutional Group I-4, day care facilities. This group shall include buildings and structures occupied by more than six persons of any age who receive custodial care for less than 24 hours by persons other than parents or guardians, relatives by blood, marriage, or adoption, and in a place other than the home of the person cared for. This group shall include, but not be limited to, the following:

- Adult day care
- Child day care

Classification as Group E. A child day care facility that provides care for more than six but no more than 100 children 21/2 years or less of age, where the rooms in which the children are cared for are located on a *level of exit discharge* serving such rooms and each of these child care rooms has an *exit* door directly to the exterior, shall be classified as Group E.

Within a place of religious worship. Rooms and spaces within places of religious worship providing such care during religious functions shall be classified as part of the primary occupancy.

Five or fewer occupants receiving care. A facility having six or fewer persons receiving custodial care shall be classified as part of the primary occupancy.

Five or fewer occupants receiving care in a dwelling unit. A facility such as the above within a dwelling unit and having six or fewer persons receiving custodial care shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

Residential Group R-1. Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

Boarding houses (transient) with more than 10 occupants

Brothels

Congregate living facilities (transient) with more than 10 occupants

Hotels (transient)

Motels (transient)

Residential Group R-3. Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Boarding houses (nontransient) with 16 or fewer occupants

Boarding houses (transient) with 10 or fewer occupants

Buildings that do not contain more than two *dwelling units*

Care facilities that provide accommodations for six or fewer persons receiving care

Congregate living facilities (nontransient) with 16 or fewer occupants

Congregate living facilities (transient) with 10 or fewer occupants

Moderate-hazard storage, Group S-1. Buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following:

Aerosols, Levels 2 and 3

Aircraft hangar (storage and repair)

Bags: cloth, burlap and paper

Bamboos and rattan

Baskets

Belting: canvas and leather

Books and paper in rolls or packs

Boots and shoes

Buttons, including cloth covered, pearl or bone

Cardboard and cardboard boxes

Clothing, woolen wearing apparel

Cordage

Furniture

Furs

Glues, mucilage, pastes and size

Grains

Horns and combs, other than celluloid

Leather

Linoleum

Lumber

Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 5003.1.1(1) (see Section 406.8 of the *International Building Code*)

Photo engravings

Resilient flooring

Self-serve storage (mini-storage)

Silks

Soaps

Sugar

Tires, bulk storage of

Tobacco, cigars, cigarettes and snuff
Upholstery and mattresses
Wax candles

Low-hazard storage, Group S-2. Includes, among others, buildings used for the storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions; or in paper wrappings. Such products are permitted to have a negligible amount of plastic trim, such as knobs, handles or film wrapping. Storage uses shall include, but not be limited to, storage of the following:

Asbestos
Beverages up to and including 16-percent alcohol in metal, glass or ceramic containers
Cement in bags
Chalk and crayons
Dairy products in nonwaxed coated paper containers
Dry boat storage (indoor)
Dry cell batteries
Electrical coils
Electrical motors
Empty cans
Food products
Foods in noncombustible containers
Fresh fruits and vegetables in nonplastic trays or containers
Frozen foods
Glass
Glass bottles, empty or filled with noncombustible liquids
Gypsum board
Inert pigments
Ivory
Meats
Metal cabinets
Metal desks with plastic tops and trim
Metal parts
Metals
Mirrors
Oil-filled and other types of distribution transformers
Parking garages, open or enclosed
Porcelain and pottery
Stoves
Talc and soapstones
Washers and dryers

Section 315.4.2 Height (Outside Storage)

Add new subsection 315.4.3 to section 315.4:

315.4 Outside storage. Outside storage of combustible materials shall not be located within 10 feet (3048 mm) of a lot line.

Exceptions:

1. The separation distance is allowed to be reduced to 3 feet (914 mm) for storage not exceeding 6 feet (1829 mm) in height.
2. The separation distance is allowed to be reduced when the fire code official determines that no hazard to the adjoining property exists.

315.4.1 Storage beneath overhead projections from buildings. Where buildings are protected by automatic sprinklers, the outdoor storage, display and handling of combustible materials under eaves, canopies or other projections or overhangs is prohibited except where automatic sprinklers are installed under such eaves, canopies or other projections or overhangs.

315.4.2 Height. Storage in the open shall not exceed 20 (6096 mm) in height.

315.4.3 Pallets and Firewood. In Carson City, North Lake Tahoe Fire Protection District, City of Reno, City of Sparks, Sierra Fire Protection District, Tahoe Douglas Fire Protection District and Truckee Meadows Fire Protection District the storage height for scrap pallets and all firewood shall be a maximum height of 10 feet (3048 mm) and such materials shall be stored and secured in a manner to assure stability and prevent the materials from slipping, sliding, toppling, collapsing, or falling.

Section 507.3 Fire Flow

Amend section 507.3 to read as follows:

507.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an *approved* method.

Subject to the approval of the fire authority, if the *required* fire flow is not available for adequate fire protection, an approved automatic fire sprinkler system shall be installed throughout the building or buildings. The sprinkler system must meet the requirements of the appropriate N.F.P.A. standard. The provisions of this paragraph do not apply if a fire sprinkler system is otherwise required by this chapter or the adopted codes.

Section 507.5.5 Clear Space Around Hydrants

Amend section 507.5.5 To read as follows:

507.5.5 Clear space around hydrants. A 3-foot (914 mm) clear space shall be maintained around the circumference of fire hydrants, except as otherwise required or *approved*. In addition, a minimum clear space of seven and one half feet (2286 mm) shall be maintained to both sides directly in front of the front pumper connection. This requirement shall apply to any public or private property.

In North Lake Tahoe Fire Protection District and Tahoe Douglas Fire Protection District a minimum of fifteen foot (4572 mm) clear space shall be maintained to the front; seven and one half feet (2286 mm) to both sides; and four feet (1219 mm) to the rear of any fire hydrant. This requirement shall apply to any public or private property.

Section 508.1.5 Required Features

Amend section 508.1.5 to read as follows:

508.1.5 Required features. The *fire command center* shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system control unit.
2. The fire department communications system.
3. Fire detection and alarm system annunciator.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air distribution systems.

6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking *stairway* doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, *means of egress*, *fire protection systems*, fire-fighting equipment and fire department access, and the location of *fire walls*, *fire barriers*, *fire partitions*, *smoke barriers* and smoke partitions.
13. An *approved* Building Information Card that contains, but is not limited to, the following information:
 - 13.1. General building information that includes: property name, address, the number of floors in the building (above and below grade), use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor), estimated building population (i.e., day, night, weekend);
 - 13.2. Building emergency contact information that includes: a list of the building's emergency contacts (e.g., building manager, building engineer, etc.) and their respective work phone number, cell phone number, and e-mail address;
 - 13.3. Building construction information that includes: the type of building construction (e.g., floors, walls, columns, and roof assembly);
 - 13.4. Exit stair information that includes: number of *exit stairs* in the building, each *exit stair* designation and floors served, location where each *exit stair* discharges, *exit stairs* that are pressurized, *exit stairs* provided with emergency lighting, each *exit stair* that allows reentry, *exit stairs* providing roof access; elevator information that includes: number of elevator banks, elevator bank designation, elevator car numbers and respective floors that they serve, location of elevator machine rooms, location of sky lobby, location of freight elevator banks;
 - 13.5. Building services and system information that includes: location of mechanical rooms, location of building management system, location and capacity of all fuel oil tanks, location of emergency generator, location of natural gas service;
 - 13.6. *Fire protection system* information that includes: locations of standpipes, location of fire pump room, location of fire department connections, floors protected by *automatic* sprinklers, location of different types of *automatic sprinkler systems* installed (e.g., dry, wet, pre-action, etc.); and
 - 13.7. Hazardous material information that includes: location of hazardous material, quantity of hazardous material.
14. Work table.
15. Generator supervision devices, manual start and transfer features.
16. Public address system, where specifically required by other sections of this code.
17. Elevator fire recall switch in accordance with ASME A17.1.
18. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.
19. HVAC. The central control station shall be provided with heating, cooling, and ventilation (HVAC) systems that are independent of any other building system or area. HVAC for the central control station shall be connected to the emergency power system.
20. Lighting. Lighting shall provide adequate illumination and shall be on emergency service with additional battery back up emergency lighting.
21. Inside Telephone Line. A telephone connected to the premise's telephone exchange shall be provided. A current premise's telephone directory shall be placed next to this telephone.
22. Disconnect. The main switch for disconnecting the utility power and any alternate power sources shall be in the fire command center. Switches shall be covered to prevent accidental activation. Break glass activation is not permitted. Switches shall interrupt the public utility power feeds and any alternate power sources before entering the building. After the switch is operated, no live electrical panels, conductors, or feeds within the premises shall remain energized excluding the emergency electrical circuits.

Section 704.3 Fireplace Enclosures and Flue Shafts

Add new section 704.3 to 704:

704.3 Fireplace enclosures and flue shafts. In the Tahoe Douglas Fire Protection District and North Lake Tahoe Fire Protection District the interior of any firewood-burning fireplace enclosure and flue shaft constructed of combustible framing materials shall be completely lined with taped 5/8" type "X" drywall.

Section 901.6 Inspection, Testing and Maintenance

Amend section 901.6 to read as follows:

901.6 Inspection, testing and maintenance. Fire detection, alarm, and extinguishing systems, mechanical smoke exhaust systems, smoke and heat vents and commercial kitchen hood ventilation systems shall be maintained in an operative condition at all times, and shall be replaced or repaired where defective. Nonrequired *fire protection systems* and equipment shall be inspected, tested and maintained or removed. Air systems for fire suppression breathing apparatus shall be maintained at the same frequency as other high-rise life safety systems.

Section 901.6.2 Records

Amend section 901.6.2 to read as follows:

901.6.2 Records. Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained on the premises for a minimum of three years and shall be copied to the fire code official upon request.

901.6.2.1 Records information. Initial records shall include the name of the installation contractor, type of components installed, manufacturer of the components, location and number of components installed per floor. Records shall also include the manufacturers' operation and maintenance instruction manuals. Such records shall be maintained on the premises.

901.6.2.2 Fire suppression breathing apparatus air system procedures, maintenance and report records shall be approved by the fire code official. Inspection records shall be kept on-site.

Section 901.7 System Out of Service

Amend section 901.7 to read as follows:

901.7 Systems out of service. Where a required *fire protection system* including air systems for fire suppression breathing apparatus is out of service, the fire department and the *fire code official* shall be notified immediately and, where required by the *fire code official*, the building shall either be evacuated 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. In the event that the service/maintenance contract for any fire protection system, including air systems for fire suppression breathing apparatus is canceled or not renewed, the fire code official shall be notified by the service/maintenance contractor within 24 hours.

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

Section 903.2 Where Required

Amend section 903.2 to read as follows:

903.2 Where required. *Approved automatic sprinkler systems* in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12, Table 903.2.1 and Table 903.2.2.

Exception: Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour *fire barriers* constructed in accordance with Section 707 of the *International Building Code* or not less than 2-hour *horizontal assemblies* constructed in accordance with Section 711 of the *International Building Code*, or both.

Table 903.2.1 Required Automatic Sprinklers

Add Table 903.2.1 to section 903.2

Table 903.2.1^a
Required Automatic Sprinklers by Fire Area, Response Time, and Height
For A, B, E, F, H, I, M, S, AND U Occupancies
Sprinklers are required when any one of the listed conditions is met

Fire Jurisdiction	Fire Area ^{a,b}	Height ^c	Response Time
Carson City Fire	>5000 square feet ^{d, e}	<u>More than 2 stories</u>	-
East Fork Fire Protection District (Douglas County)	>5000 square feet	<u>More than 2 stories</u>	-
North Lake Tahoe Fire Protection District	>5000 square feet ^f	2 stories and a basement or <u>more than 2 stories</u>	-
North Lyon Fire Protection District	>5000 square feet	<u>More than 2 stories</u>	-
Reno Fire Department	>5000 square feet ^g	<u>More than 2 stories</u>	-
Truckee Meadows Fire Protection District and Sierra Fire Protection District	>5000 square feet	<u>More than 2 stories</u>	-
Sparks Fire Department	>5000 square feet	<u>More than 2 stories</u>	Over 6 minutes
Storey Fire Department	>5000 square feet	2 stories and a basement or <u>more than 2 stories</u>	-
Tahoe Douglas Fire Protection District (Douglas County)	All	-	-

~~a. S-1 and S-2 occupancies are exempt from this table.~~

a.b. Fire areas may be separated according to IBC 707.3.10.

b.e. Any addition or remodel that increases the fire area will be included in the calculation for the total square footage.

~~c.d.~~ Airport towers and open parking garages complying with IBC 406.5 are exempt from this table.

~~d.e.~~ S-1 and S-2 occupancies are exempt from this table.

e.f. A one-time increase in the fire area is permitted provided said increase is $\leq 50\%$ of the structure's existing permitted fire area square footage.

f.g. A one-time increase of 360 square feet of fire area is permitted.

g.h. Automatic fire detection system installed throughout and connected to a central station fire alarm company can be substituted for automatic sprinkler system.

Table 903.2.2 Required Automatic Sprinklers IRC Structures

Add Table 903.2.2 to section 903.2

Table 903.2.2^a
Required Automatic Sprinklers by Fire Area, Response Time and Height
For Structures Designed and Constructed with the International Residential Code
Sprinklers are required when any one of the listed conditions is met.

Fire Jurisdiction	Fire Area ^b		Height	Response Time
Carson City Fire	>5000 square feet ^{c, d}		-	-
East Fork Fire Protection District (Douglas County)	-		-	-
North Lake Tahoe Fire Protection District	>5000 square feet ^e		2 stories and a basement or 3 stories or greater	-
North Lyon Fire Protection District	>5000 square feet		-	-
Reno Fire Department	>5000 square feet ^f		-	Over 6 minutes ^f
Truckee Meadows Fire Protection District and Sierra Fire Protection District	New	>5000 square feet	-	-
	Existing	>7000 square feet ^g		
Sparks Fire Department	>5000 3600 square feet		3 stories or greater	Over 6 minutes
Storey Fire Department	-		-	-
Tahoe Douglas Fire Protection District (Douglas County)	>3600 square feet ^{h, i}		2 stories and a basement or 3 stories or greater	-

a. This table is in addition to any other automatic sprinkler requirements in this code.

b. Any addition or remodel that increases the fire area will be included in the calculation for the total square footage.

c. For new construction, unenclosed portions of the roof structure to a maximum of 750 square feet are excluded from the fire area.

d. A one-time increase in the fire area is permitted provided said increase is $\leq 50\%$ of the structure's existing permitted fire area square footage.

e. A one-time increase of 360 square feet of fire area is permitted.

f. The structure must be greater than 5000 square feet *and* be outside of a 6 minute response time.

g. See section 907.2.10.2.1 for alarm requirements for existing structures.

h. Accessory structures are exempt from this table.

i. Garage square footage is not included in the fire area.

Section 903.2.1.2 Group A-2

Amend section 903.2.1.2 to read as follows:

903.2.1.2 Group A-2. An automatic sprinkler system shall be provided for Group A-2 occupancies where one of the following conditions exists:

1. The *fire area* exceeds 5,000 square feet (464 m²).
2. The *fire area* has an *occupant load* of 100 or more.
3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.

Occupancies containing a casino, regardless of occupancy classification, must be designed and built with a sprinkler system classified as an Ordinary Hazard Group 2.

Section 903.2.3 Group E

Amend section 903.2.3 to read as follows:

903.2.3 Group E. An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E *fire areas* greater than 12,000 square feet (1115 m²) in area.

2. Throughout every portion of educational buildings below the lowest *level of exit discharge* serving that portion of the building.

Exception: An *automatic sprinkler system* is not required in any area below the lowest *level of exit discharge* serving that area where every classroom throughout the building has at least one exterior *exit door* at ground level.

In high schools where automatic fire sprinkler systems are provided, the automatic fire sprinkler systems for the automotive and woodworking shops must be *designed to Ordinary Hazard, Group 1 automatic fire sprinkler systems criteria*.

Section 903.3.1.1 NFPA 13 Sprinkler Systems

Amend section 903.3.1.1 to read as follows:

903.3.1.1 NFPA 13 sprinkler systems. Where the provisions of this code require that a building or portion thereof be equipped throughout with an *automatic sprinkler system* in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13 except as provided in Section 903.3.1.1.1. ~~An R-1 or R-2 occupancy that has more than two stories must have an NFPA 13 system installed.~~ In North Lake Tahoe Fire Protection District all Group R-3 occupancies larger than ten thousand (10,000) square feet or exceeding four (4) stories in height are required to have automatic sprinklers installed throughout in accordance with NFPA 13.

Section 903.3.1.2 NFPA 13R Sprinkler System

Amend section 903.3.1.2 to read as follows:

903.3.1.2 NFPA 13R sprinkler systems. *Automatic sprinkler systems* in Group R occupancies up to and including ~~four two~~ stories in height shall be permitted to be installed throughout in accordance with NFPA 13R. ~~An R-1 or R-2 occupancy that has more than two stories shall have an N.F.P.A. 13 system installed.~~

Section 903.3.1.3 NFPA 13D Sprinkler Systems

Amend section 903.3.1.3 to read as follows:

903.3.1.3 NFPA 13D sprinkler systems. *Automatic sprinkler systems* installed in one and two-family *dwelling*s, Group R-3 and R-4 congregate living facilities and *townhouses* shall be permitted to be installed throughout in accordance with NFPA 13D. NFPA 13D systems are not permitted in North Lake Tahoe Fire Protection District.

Section 903.4 Sprinkler System Supervision and Alarms

Amend section 903.4 to read as follows:

903.4 Sprinkler system supervision and alarms. All valves controlling the water supply for *automatic sprinkler systems*, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems shall be electrically supervised by a *listed* fire alarm control unit.

Exceptions:

1. *Automatic sprinkler systems* protecting one- and two-family *dwelling*s.

2. Limited area systems serving fewer than 20 sprinklers.
3. *Automatic sprinkler systems* installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the *automatic sprinkler system*, and a separate shutoff valve for the *automatic sprinkler system* is not provided.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position. This exception will not apply to any of the above-mentioned control valves if they are located in a building equipped with any fire alarm or protection system that is required to be monitored by a central control station fire alarm company.
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

Section 903.4.2 Alarms

Amend section 903.4.2 to read as follows:

903.4.2 Alarms. An approved audible device, shall be connected to each *automatic sprinkler system*. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Alarm devices shall be provided on the exterior of the building and within each tenant space on the interior of the building and in an approved location. Where a fire alarm system is installed, actuation of the *automatic sprinkler system* shall actuate the building fire alarm system.

Section 906.2 General Regulations

Amend section 906.2 to read as follows:

906.2 General requirements. Portable fire extinguishers shall be selected, installed and maintained in accordance with this section and NFPA 10.

Exceptions:

1. The travel distance to reach an extinguisher shall not apply to the spectator seating portions of Group A-5 occupancies.
2. Thirty-day inspections shall not be required and maintenance shall be allowed to be annually for dry-chemical or halogenated agent portable fire extinguishers that are supervised by a *listed and approved* electronic monitoring device, provided that all of the following conditions are met:
 - 2.1. Electronic monitoring shall confirm that extinguishers are properly positioned, properly charged and unobstructed.
 - 2.2. Loss of power or circuit continuity to the electronic monitoring device shall initiate a trouble signal.
 - 2.3. The extinguishers shall be installed inside of a building or cabinet in a noncorrosive environment.
 - 2.4. Electronic monitoring devices and supervisory circuits shall be tested annually when extinguisher maintenance is performed.
 - 2.5. A written log of required hydrostatic test dates for extinguishers shall be maintained by the *owner* to verify that hydrostatic tests are conducted at the frequency required by NFPA 10.
3. In Group I-3, portable fire extinguishers shall be permitted to be located at staff locations.
4. Carbon dioxide, wet chemical, halogenated agent, AFFF and FFFP portable fire extinguishers shall be internally examined in accordance with NFPA 10, Table 7.3.1.1.2. All other portable fire extinguishers shall be internally examined annually.

Section 907.2.10 Group R-3 and R-4

Add new subsection 907.2.10.2.1 and amend section 907.2.10 and subsection 907.2.10.2 to read as follows:

907.2.10 Group R-3 and R-4. Fire alarm systems and smoke alarms shall be installed in Group R-3 and R-4 occupancies as required in Sections 907.2.10.1 through 907.2.10.3.

907.2.10.2 Automatic smoke detection system R-4. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed in *corridors*, waiting areas open to *corridors* and *habitable spaces* other than *sleeping units* and kitchens.

Exceptions:

1. Smoke detection in *habitable spaces* is not required where the facility is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.
2. An automatic smoke detection system is not required in buildings that do not have interior *corridors* serving *sleeping units* and where each *sleeping unit* has a *means of egress* door opening directly to an *exit* or to an exterior *exit access* that leads directly to an exit.

907.2.10.2.1 Automatic smoke detection system R-3. In Truckee Meadows Fire Protection District and Sierra Fire Protection District an automatic fire detection system installed throughout and connected to a central station fire alarm company is required for additions that make the structure greater than 5,000 square feet but less than 7,000 square feet.

Section 907.5.2.1.1 Average Sound Pressure

Amend section 907.5.2.1.1 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 (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 all other occupancies.

Section 910.1 General (Smoke and Heat Removal)

Amend section 910.1 to read as follows:

910.1 General. Where required by this code or otherwise installed, smoke and heat vents or mechanical smoke exhaust systems and draft curtains shall conform to the requirements of this section.

Exceptions:

1. Frozen food warehouses used solely for storage of Class I and II commodities where protected by an *approved automatic sprinkler system*.
2. Automatic smoke and heat vents are not required within areas of buildings equipped with early suppression fast-response (ESFR) sprinklers unless the area of a Group F-1 or S-1 occupancy protected with the ESFR sprinklers has an exit access travel distance of more than 250 feet (76 200 mm).

Section 910.3.2.2 Sprinklered Buildings

Amend section 910.3.2.2 to read as follows and add subsections 910.3.2.2.1 thru 910.3.2.2.3:

910.3.2.2 Sprinklered buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed in accordance with Sections 910.3.2.2.1 through 910.3.2.2.3.

910.3.2.2.1 Automatic operation. Smoke and heat vents shall be designed to operate automatically.

910.3.2.2.2 Control mode sprinkler system. Smoke and heat vents installed in areas of buildings with a control mode sprinkler system shall have operating elements with a higher temperature classification than the automatic fire sprinklers in accordance with NFPA 13.

910.3.2.2.3 Early suppression fast-response (ESFR) sprinkler system. Smoke and heat vents installed in areas of buildings with early suppression fast-response (ESFR) sprinklers shall be equipped with a standard-response operating mechanism with a minimum temperature rating of 360°F (182°C) or 100°F (56°C) above the operating temperature of the sprinklers, whichever is higher.

Section 912.4.1 Service Area

Add new subsection 912.4.1 to 912.4:

912.4 Signs. A metal sign with raised letters at least 1 inch (25 mm) in size shall be mounted on all fire department connections serving automatic sprinklers, standpipes or fire pump connections. Such signs shall read: AUTOMATIC SPRINKLERS or STANDPIPES or TEST CONNECTION or a combination thereof as applicable. Where the fire department connection does not serve the entire building, a sign shall be provided indicating the portions of the building served.

912.4.1 Service area. A sign indicating the buildings address or areas serviced by a sprinkler or standpipe system shall be permanently mounted and maintained on all fire department connections when required by the fire code official.

Section 913.4 Valve Supervision

Amend section 913.4 to read as follows:

913.4 Valve supervision. Where provided, the fire pump suction, discharge and bypass valves, and the isolation valves on the backflow prevention device or assembly shall be supervised open by one of the following methods.

1. Central-station, proprietary or remote-station signaling service.
2. Local signaling service that will cause the sounding of an audible signal at a constantly attended location.

Section 914.3 High-rise Buildings

Add new subsection 914.3.7 and amend section 914.3 to read as follows:

914.3 High-rise buildings. High-rise buildings shall comply with Sections 914.3.1 through 914.3.7.

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 903.3.5.2.

Exception: An *automatic sprinkler system* shall not be required in spaces or areas of:

1. Open parking garages in accordance with Section 406.5 of the *International Building Code*.
2. Telecommunications equipment buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided that those spaces or areas are equipped throughout with an automatic fire detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour *fire barriers* constructed in accordance with Section 707 of the *International Building Code* or not less than 2-hour *horizontal assemblies* constructed in accordance with Section 711 of the *International Building Code*, or both.

914.3.1.1 Number of sprinkler risers and system design. Each sprinkler system zone in buildings that are more than 420 feet (128 m) in height shall be supplied by a minimum of two risers. Each riser shall supply sprinklers on alternate floors. If more than two risers are provided for a zone, sprinklers on adjacent floors shall not be supplied from the same riser.

914.3.1.1.1 Riser location. Sprinkler risers shall be placed in interior exit stairways and ramps that are remotely located in accordance with Section 1015.2.

914.3.1.2 Water supply to required fire pumps.

Required fire pumps shall be supplied by connections to a minimum of two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: Two connections to the same main shall be permitted provided the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through at least one of the connections.

914.3.2 Fire alarm system. A fire alarm system shall be provided in accordance with Section 907.2.13.

914.3.3 Automatic smoke detection. Smoke detection shall be provided in accordance with Section 907.2.13.1.

914.3.4 Emergency voice/alarm communication system. An emergency voice/alarm communication system shall be provided in accordance with Section 907.6.2.2.

914.3.5 Emergency responder radio coverage. Emergency responder radio coverage shall be provided in accordance with Section 510.

914.3.6 Fire command. A *fire command center* complying with Section 508 shall be provided in a location *approved* by the fire department.

914.3.7 Firefighter Breathing Air Replenishment Systems. A firefighter breathing air replenishment system shall be provided in all new high-rise buildings of ten (10) or more stories in height. The firefighter breathing air system installation and maintenance shall comply with Appendix F of the Uniform Plumbing Code. Inspection records shall be kept on site and shall be readily available to the fire code official.

Table 1016.2 Exit Access Travel Distance

Amend Table 1016.2 to read as follows:

**TABLE 1016.2
EXIT ACCESS TRAVEL DISTANCE^a**

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)	WITH SPRINKLER SYSTEM (feet)
A, E, F-1, M, R, S-1	200	250 ^b
I-1	Not Permitted	250 ^c
B	200	300 ^c
F-2, S-2, U	300	400 ^c
H-1	Not Permitted	75 ^c
H-2	Not Permitted	100 ^c
H-3	Not Permitted	150 ^c
H-4	Not Permitted	175 ^c
H-5	Not Permitted	200 ^c
I-2, I-3, I-4	Not Permitted	200 ^c

For SI: 1 foot = 304.8 mm.

- a. See the following sections for modifications to exit access travel distance requirements:
- Section 402.8: For the distance limitation in malls.
 - Section 404.9: For the distance limitation through an atrium space.
 - Section 407.4: For the distance limitation in Group I-2.
 - Sections 408.6.1 and 408.8.1: For the distance limitations in Group I-3.
 - Section 411.4: For the distance limitation in Special Amusement Buildings.
 - Section 1015.4: For the distance limitation in refrigeration machinery rooms.
 - Section 1015.5: For the distance limitation in refrigerated rooms and spaces.
 - Section 1016.4: For increased limitation in Groups F-1 and S-1.
 - Section 1021.2: For buildings with one exit.
 - Section 1028.7: For increased limitation in assembly seating.
 - Section 1028.7: For increased limitation for assembly open-air seating.
 - Section 3103.4: For temporary structures.
 - Section 3104.9: For pedestrian walkways.
- b. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems in accordance with Section 903.3.1.2 are permitted.
- c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1

Section 1016.4 Group F-1 and S-1 Increase

Add new section 1016.4 to 1016:

1016.4 Group F-1 and S-1 increase. The maximum exit access travel distance shall be 400 feet (122 m) in Group F-1 or S-1 occupancies where all of the following are met:

1. The portion of the building classified as Group F-1 or S-1 is limited to one story in height, and
2. The minimum height from the finished floor to the bottom of the ceiling or roof slab or deck is 24 feet (7315 mm), and
3. The building is equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1.

Chapter 11 Construction Requirements for Existing Buildings

Delete entire chapter.

Section 2809.1 General (Exterior Storage)

Amend section 2809.1 to read as follows:

2809.1 General. Exterior storage of finished lumber products, fire wood, chips, hogged material and associated raw products shall comply with Sections 2809.1 through 2809.5.

Section 2809.2 Size of Piles

Amend section 2809.2 to read as follows:

2809.2 Size of piles. Exterior lumber storage shall be arranged to form stable piles with a maximum height of 25 feet (6096 mm). Piles shall not exceed 150,000 cubic feet (4248 m³) in volume.

Section 5601.1.3 Fireworks

Amend section 5601.1.3 to read as follows:

5601.1.3 Fireworks. The possession, manufacture, storage, sale, handling and use of fireworks are prohibited.

Exceptions:

1. Storage and handling of fireworks as allowed in Section 5604.
2. Manufacture, assembly and testing of fireworks as allowed in Section 5605.
3. The use of fireworks for fireworks displays as allowed in Section 5608.

Section 5601.1.6 Exploding Targets

Add new subsection to section 5601.1:

5601.1.6 Exploding targets. The possession, manufacture, sale, and use of exploding targets, including binary exploding targets, are prohibited.

Section 6101.1 Scope

Amend section 6101.1 to read as follows:

6101.1 Scope. Storage, handling and transportation of liquefied petroleum gas (LP-gas) and the installation of LP-gas equipment pertinent to systems for such uses shall comply with this chapter and NFPA 58. Properties of LP-gases shall be determined in accordance with Appendix B of NFPA 58. In the event of a conflict between any provision in this chapter and the regulations of the Board for the Regulation of Liquefied Petroleum Gas, the regulations of the Board take precedence.

Section B105.2

Amend section B105.2 to read as follows:

B105.2 Buildings other than one- and two-family dwellings.

The minimum fire-flow and flow duration for buildings other than one- and two-family *dwellings* shall be as specified in Table B105.1.

Exception: A reduction in required fire-flow of up to 50 percent, as *approved*, is allowed when the building is provided with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2. The resulting fire-flow shall not be less than 1,500 gallons per minute (5678 L/min) for the prescribed duration as specified in Table B105.1.