



## CITY OF LAGUNA HILLS ORDINANCE SUMMARY CERTIFICATION

STATE OF CALIFORNIA     )  
COUNTY OF ORANGE     ) ss.  
CITY OF LAGUNA HILLS    )

I, MELISSA AU-YEUNG, City Clerk of the City of Laguna Hills, California,

DO HEREBY CERTIFY that the attached is a true and correct copy of:

### ORDINANCE NO. 2016-7

AN ORDINANCE OF THE CITY OF LAGUNA HILLS, CALIFORNIA, AMENDING TITLE 10 OF THE LAGUNA HILLS MUNICIPAL CODE (BUILDINGS AND CONSTRUCTION) AND ADOPTING BY REFERENCE THE 2016 EDITION OF THE CALIFORNIA BUILDING STANDARDS CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24), CONSISTING OF THE 2016 CALIFORNIA BUILDING CODE; THE 2016 CALIFORNIA MECHANICAL CODE; THE 2016 CALIFORNIA ELECTRICAL CODE; THE 2016 CALIFORNIA PLUMBING CODE; THE 2016 CALIFORNIA RESIDENTIAL CODE; THE 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE; THE 2016 CALIFORNIA ENERGY CODE; THE 2016 BUILDING REFERENCE STANDARDS CODE; AND THE 2016 CALIFORNIA EXISTING BUILDING CODE, TOGETHER WITH CERTAIN AMENDMENTS, ADDITIONS, AND DELETIONS THERETO.

This Ordinance was adopted by the City Council of the City of Laguna Hills, California, at a regular meeting thereof on the 13<sup>th</sup> day of December 2016, by the following vote:

AYES: Council Members Gilbert, Heft, Kogerman, Mayor Pro Tempore Carruth, and Mayor Sedgwick

NOES: None

ABSENT: None

ABSTAIN: None

  
\_\_\_\_\_  
MELISSA AU-YEUNG, CITY CLERK

Dated this 14<sup>th</sup> day of December 2016.

ORDINANCE NO. 2016-7

AN ORDINANCE OF THE CITY OF LAGUNA HILLS, CALIFORNIA, AMENDING TITLE 10 OF THE LAGUNA HILLS MUNICIPAL CODE (BUILDINGS AND CONSTRUCTION) AND ADOPTING BY REFERENCE THE 2016 EDITION OF THE CALIFORNIA BUILDING STANDARDS CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24), CONSISTING OF THE 2016 CALIFORNIA BUILDING CODE; THE 2016 CALIFORNIA MECHANICAL CODE; THE 2016 CALIFORNIA ELECTRICAL CODE; THE 2016 CALIFORNIA PLUMBING CODE; THE 2016 CALIFORNIA RESIDENTIAL CODE; THE 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE; THE 2016 CALIFORNIA ENERGY CODE; THE 2016 BUILDING REFERENCE STANDARDS CODE; AND THE 2016 CALIFORNIA EXISTING BUILDING CODE, TOGETHER WITH CERTAIN AMENDMENTS, ADDITIONS, AND DELETIONS THERETO.

WHEREAS, pursuant to California Government Code Section 50022.1 *et seq.*, the City of Laguna Hills ("City") may adopt by reference the California Building Standards Code, 2016 Edition, as provided in Title 24 of the California Code of Regulations; and

WHEREAS, the California Building Standards Commission ("Commission") recently adopted new amendments to the California Building Standards Code; and

WHEREAS, California Health & Safety Code Section 17958.5 *et seq.*, and 18941.5 authorize cities to modify the California Building Standards Code by adopting more restrictive standards and modifications if such standards and modifications are accompanied by express findings that they are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, based upon the recommendations of the Building Official, the City Council finds the proposed amendments to the 2016 California Building Standards Code ("amendments") set forth in this ordinance, which are more restrictive than the standards adopted by the California Building Standards Commission, would decrease the potential incidence of property damage, injury, and death due to fires and

earthquakes, and are reasonable and necessary to mitigate local climatic, geological or topographical conditions; and

WHEREAS, on November 22, 2016, the City Council introduced this Ordinance for first reading at a regular meeting of the City Council, and set a public hearing and second reading of the Ordinance for November December 13, 2016; and

WHEREAS, the City Council held a public hearing on December 13, 2016, at which time all interested persons had the opportunity to appear and be heard on the matter of adopting the 2016 California Building Standards Code as amended herein; and

WHEREAS, pursuant to California Government Code Section 6066, the City published notice of the aforementioned public hearing; and

WHEREAS, any and all other legal prerequisites relating to the adoption of this Ordinance have occurred.

THE CITY COUNCIL OF THE CITY OF LAGUNA HILLS, CALIFORNIA,  
DOES ORDAIN AS FOLLOWS:

**SECTION 1.** Findings. The City Council hereby finds that the amendments to the 2016 California Building Code and 2016 California Residential Code are reasonably necessary because of local climatic, geological or topographic conditions, and adopts the findings provided below to support the modifications to the 2016 California Building Code and 2016 California Residential Code.

**1. Climatic Conditions**

A. Orange County and the City of Laguna Hills are located in a semi-arid Mediterranean type climate. It annually experiences extended periods of high temperatures with little or no precipitation. Hot, dry (Santa Ana) winds, which may reach speeds of 70 M.P.H. or greater, are also common to the area. These climatic conditions cause extreme drying of vegetation and common building materials. Frequent periods of drought and low humidity add to the fire danger. This predisposes the area to large destructive fires (conflagration). In addition to directly damaging or destroying buildings, these fires are also prone to disrupt utility services throughout the County. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles greatly impact the response time to reach an incident scene.

B. The climate alternates between extended periods of drought and brief flooding conditions. Flood conditions may affect the Orange County Fire Authority's ability to respond to a fire or emergency condition. Floods also disrupt utility services to buildings and facilities within the County.

C. Water demand in this densely populated area far exceeds the quantity supplied by natural precipitation; and although the population continues to grow, the already-taxed water supply does not. California is projected to increase in population by nearly 10 million over the next quarter of a century with 50 percent of that growth centered in Southern California. Due to storage capacities and consumption, and a limited amount of rainfall future water allocation is not fully dependable. This necessitates the need for additional and on-site fire protection features

D. These dry climatic conditions and winds contribute to the rapid spread of even small fires originating in high-density housing or vegetation. These fires spread very quickly and create a need for increased levels of fire protection. The added protection of fire sprinkler systems and other fire protection features will supplement normal fire department response by providing immediate protection for the building occupants and by containing and controlling the fire spread to the area of origin. Fire sprinkler systems will also reduce the use of water for firefighting by as much as 50 to 75 percent.

## **2. Topographical Conditions**

A. Natural slopes of 15 percent or greater generally occur throughout the foothills of Orange County. The elevation change caused by the hills creates the geological foundation on which communities within Orange County are built and will continue to build. With much of the populated flatlands already built upon, future growth will occur on steeper slopes and with greater constraints in terrain.

B. Traffic and circulation congestion is an artificially created, obstructive topographical condition, which is common throughout Orange County.

C. These topographical conditions combine to create a situation that places fire department response time to fire occurrences at risk, and makes it necessary to provide automatic on-site fire-extinguishing systems and other protection measures to protect occupants and property.

## **3. Geological Conditions**

The Orange County region is a densely populated area that has buildings constructed over and near a vast and complex network of faults that are believed to be capable of producing future earthquakes similar or greater in size than the 1994 Northridge and the 1971 Sylmar earthquakes. Earthquake faults run along the

northeast and southwest boundaries of Orange County. The Newport-Inglewood Fault, located within Orange County was the source of the destructive 1933 Long Beach earthquake (6.3 magnitude) which took 120 lives and damaged buildings in an area from Laguna Beach to Marina Del Rey to Whittier. In December 1989, another earthquake occurred in the jurisdiction of Irvine at an unknown fault line. Regional planning for reoccurrence of earthquakes is recommended by the state of California, Department of Conservation.

A. Previous earthquakes have been accompanied by disruption of traffic flow and fires. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create obstacles similar to those indicated under the high wind section above. The October 17, 1989, Santa Cruz earthquake resulted in one major fire in the Marina District (San Francisco). When combined with the 34 other fires locally and over 500 responses, the department was taxed to its fullest capabilities. The Marina fire was difficult to contain because mains supplying water to the district burst during the earthquake. This situation creates the need for both additional fire protection and automatic on-site fire protection for building occupants. State Department of Conservation noted in their 1988 report (Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, page 59), "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe."

B. Road circulation features located throughout the County also make amendments reasonably necessary. Located through the County are major roadways, highways and flood control channels that create barriers and slow response times. Hills, slopes, street and storm drain design, accompanied by occasional heavy rainfall, causes roadway flooding and landslides and at times may make an emergency access route impassable. There are areas in Orange County that naturally have extended emergency response times that exceed the 5 minute goal.

C. Soils throughout the County possess corrosive properties that reduce the expected usable life of water services when metallic pipes are in contact with soils.

Due to the topographical conditions of sprawling development separated by waterways and narrow and congested streets and the expected infrastructure damage inherent in seismic zones described above, it is prudent to rely on automatic fire sprinkler systems to mitigate extended fire department response time and keep fires manageable with reduced fire flow (water) resources available for a given structure. Additional fire protection is also justified to match the current resources of firefighting equipment and personnel within the Orange County Fire Authority.

Additional amendments have been made to the 2016 California Building Standards Code. Such amendments are hereby found to be either administrative or procedural in nature or concern themselves with subjects not covered in such codes. The changes made include provisions making each of said codes compatible with other codes enforced by the City.

The findings above are applicable to amendments to the 2016 California Building Code as follows:

CODE SECTION	TITLE (Clarification)	FINDINGS
202	General definitions	Administrative
701A.3	Construction methods requirements for the addition and remodeling requirements of building in wildfire areas located within 100 feet of a fuel modification zone.	I & II
701A.3.2	Construction methods requirements for the detached accessory structures in wildfire areas.	I & II
701A.4	Construction material requirements for the accessory structures in wildfire areas.	I & II
903.2	Where required (Sprinklers)	I, II & III
903.2.8	Group R (Sprinklers)	I, II & III
903.3.5.3	Hydraulically calculated systems	I & II
Chapter 35	Reference Standards	N/A
	2016 NFPA 13 (Sprinkler Systems)	Administrative, II & III
	2016 NFPA 13-D (Single Family Sprinkler Systems)	I & II
	2013 NFPA 14 (Standpipe Systems)	Administrative
	2016 NFPA 24 (Underground Water Supply Systems)	Administrative & III

The findings above are applicable to amendments to the 2016 California Residential Code as follows:

CODE SECTION	TITLE (Clarification)	FINDINGS
202	General definitions	Administrative
R301.9	Construction methods requirements for the addition and remodeling requirements of building in wildfire areas located within 100 feet of a fuel modification zone.	I & II
R309.6	Group R-3 fire sprinkler requirements in attached garages, carports with habitable spaces in accordance with CFC Section 903.2.8	I, II & III

R313.1	Group R-3 Townhome fire sprinkler requirements for additions and alterations in accordance with CFC Section 903.2.8	I, II & III
R313.2	Group R One- and two-family fire sprinkler requirements for additions and alterations in accordance with CFC Section 903.2.8	I, II & III
R313.3.6.2.2	Hydraulically calculated systems	I & II
R1001.13	Fire Pits, Fire Rings, & Outdoor Fireplaces	Administrative
R1001.13.1	Gas-fueled devices	I & II
R1001.13.2	Devices using wood or fuels other than natural gas or LPG	I & II
R1001.13.3	Where prohibited	I & II
Chapter 44	Reference Standards	N/A
	2016 NFPA 13-D (Single Family Sprinkler Systems)	I & II

**SECTION 2.** Chapter 10.28 of the Laguna Hills Municipal Code is hereby amended and restated in its entirety to read as follows:

**Chapter 10-28 CALIFORNIA BUILDING CODE**

**10-28-010 Adoption of the California Building Code.**

The California Building Code, 2016 Edition, based on the 2015 Edition of the International Building Code as published by the International Code Council, together with the amendments provided in this chapter, is hereby adopted and incorporated by reference, as if set forth at length herein, as the Building Code of the City of Laguna Hills, regulating the construction, alteration, movement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures in the City. Not less than one copy of said code has been filed in the office of the City Clerk and shall be made available for public inspection.

**10-28.030 Amendments to the California Building Code.**

**Chapter 2 Definitions.**

**Section 202 Definitions** is hereby revised by adding “Spark Arrester” as follows:

**SPARK ARRESTER.** A listed device constructed of noncombustible material specifically for the purpose of meeting one of the following conditions:

1. Removing and retaining carbon and other flammable particles/debris from the exhaust flow of an internal combustion engine in accordance with California Vehicle Code Section 38366.
2. Fireplaces that burn solid fuel in accordance with California Building Code Chapter 28.

## **Chapter 7A Materials and Construction Methods for Exterior Wildfire Exposure.**

**Section 701A.3 Application** is hereby revised to read as follows:

**701A.3 Application.** New buildings located in any Fire Hazard Severity Zone or any Wildland-Urban Interface Fire Area designated by the enforcing agency constructed after the application date, and additions to and remodel of buildings constructed before 2012 located in areas currently designated as such, shall comply with the provisions of this chapter. The provisions shall also apply to additions, remodels, and accessory structures located within 100 feet of a fuel modification zone, vegetation management area, or similar area containing hazardous combustible vegetation, regardless of whether the property is currently located in a designated Fire Hazard Severity Zone or Wildland-Urban Interface Fire Area, when materials and/or construction methods for exterior wildfire exposure were previously required at the property by the Building or Fire Code Official at the time of construction.

### **Exceptions:**

1. Buildings of an accessory character classified as a Group U occupancy and not exceeding 120 square feet in floor area, when located at least 30 feet from the applicable building.
2. Buildings of an accessory character classified as a Group U occupancy of any size located least 50 feet from an applicable building.
3. Buildings classified as a Group U Agricultural Building, as defined in Section 202 of this code (see also Appendix C – Group U Agricultural Buildings), when located at least 50 feet from an applicable building.

**Section 710A.3.2** is hereby revised to read as follows:

**710A.3.2** Detached accessory structures within 50 feet of an applicable building shall comply with the requirements of this section.

**Section 710A.4 Requirements** is hereby revised to read as follows:

**710A.4 Requirements.** Accessory structures shall be constructed of non-combustible or ignition-resistant materials.

## Chapter 9 Fire Protection Systems.

**Section 903.2** Where required is hereby revised to read as follows:

**903.2 Where required.** Approved automatic sprinkler systems in-buildings and structures shall be provided when one of the following conditions exists:

1. **New buildings:** Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.19, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area exceeds 5,000 square feet as defined in Section 202, regardless of fire areas or allowable area, or is more than two stories in height.

**Exception:** Subject to approval by the Fire Code Official, open parking garages in accordance with Section 406.5 of the California Building Code.

2. **Existing Buildings:** Notwithstanding any applicable provisions of this code, an automatic sprinkler system shall be provided in an existing building when an addition occurs and one of the following conditions exists:
  - a. When an addition is 33% or more of the existing building area, and the resulting building area exceeds 5000 square feet
  - b. When an addition exceeds 2000 square feet and the resulting building area exceeds 5000 square feet.
  - c. An additional story is added above the second floor regardless of fire areas or allowable area.

**Exception:** Additions to Group R-3 occupancies shall comply with Section 903.2.8 (2).

**Section 903.2.8 Group R** is hereby revised to read as follows:

**903.2.8 Group R.** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area as follows:

1. **New Buildings:** An automatic sprinkler system shall be installed throughout all new buildings.
2. **Existing R-3 Buildings:** An automatic sprinkler system shall be installed throughout when one of the following conditions exists:
  - a. When an addition is 33% or more of the existing building area as defined in Section 202, and greater than 1000 square feet within a two year period; or,
  - b. An addition when the existing building is already provided with automatic sprinklers; or,
  - c. When an existing Group R Occupancy is being substantially renovated, and where the scope of the renovation is such that the Building Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.

**Exceptions:**

1. Existing Group R-3 occupancies converted to Group R-3.1 occupancies and not housing bedridden clients, not housing nonambulatory clients above the first floor, and not housing clients above the second floor.
2. Existing Group R-3 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with Section 435.8.3.3 of the California Building Code.
3. Pursuant to Health and Safety Code, Section 13113, occupancies housing ambulatory children only, none of whom are mentally ill children or children with intellectual disabilities, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and building or portions thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.
4. Pursuant to Health and Safety Code, Section 13143.6, occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

When not used in accordance with Section 504.2 or 506.3 of the California Building Code, an automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be allowed in Group R-2.1 occupancies.

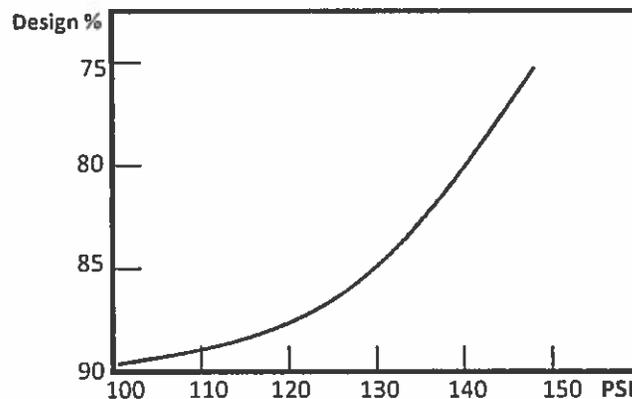
An automatic sprinkler system designed in accordance with Section 903.3.1.3 shall not be utilized in Group R-2.1 or R-4 occupancies.

**Section 903.3.5.3 Hydraulically calculated systems** is hereby added as follows:

**903.3.5.3 Hydraulically calculated systems.** The design of hydraulically calculated fire sprinkler systems shall not exceed 90% of the water supply capacity.

**Exception:** When static pressure exceeds 100 psi, and when required by the fire code official, the fire sprinkler system shall not exceed the water supply capacity specified by Table 903.3.5.3.

**TABLE 903.3.5.3**  
**Hydraulically Calculated Systems**



**Chapter 35 Referenced Standards.**

**NFPA 13, 2016 Edition, Standard for the Installation of Sprinkler Systems** is hereby amended as follows:

**Section 6.7.3** is hereby revised to read as follows:

**6.7.3** Fire department connections (FDC) shall be of an approved type. The location shall be approved and be no more than 150 feet from a public hydrant. The FDC may be located within 150 feet of a private fire hydrant when approved by the fire code official. The size of piping and the number of 2½"

inlets shall be approved by the fire code official. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red or as approved. When the fire sprinkler density design requires more than 500 gpm (including inside hose stream demand), or a standpipe system is included, four 2½" inlets shall be provided.

**Section 8.3.3.1** is hereby revised to read as follows:

**8.3.3.1** When fire sprinkler systems are installed in shell buildings of undetermined use (Spec Buildings) other than warehouses (S occupancies), fire sprinklers of the quick-response type shall be used. Use is considered undetermined if a specific tenant/occupant is not identified at the time the fire sprinkler plan is submitted. Sprinklers in light hazard occupancies shall be one of the following:

1. Quick-response type as defined in 3.6.4.8
2. Residential sprinklers in accordance with the requirements of 8.4.5
3. Quick response CMSA sprinklers
4. ESFR sprinklers
5. Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
6. Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

**Section 11.1.1.1** is hereby added as follows:

**11.1.1.1** When fire sprinkler systems are required in buildings of undetermined use other than warehouses, they shall be designed and installed to have a fire sprinkler density of not less than that required for an Ordinary Hazard Group 2 use, with no reduction(s) in density or design area. Warehouse fire sprinkler systems shall be designed to Figure 16.2.1.3.2 (d) curve "G". Use is considered undetermined if a specific tenant/occupant is not identified at the time the sprinkler plan is submitted. Where a subsequent use or occupancy requires a system with greater capability, it shall be the responsibility of the occupant to upgrade the system to the required density for the new use or occupancy.

**Section 11.2.3.1.1.1** is hereby added as follows:

**11.2.3.1.1.1** The available water supply for fire sprinkler system design shall be determined by one of the following methods, as approved by the fire code official:

1. Subtract the project site elevation from the low water level for the appropriate pressure zone and multiply the result by 0.433;
2. Use a maximum of 40 psi, if available;
3. Utilize the OCFA water-flow test form/directions to document a flow test conducted by the local water agency or an approved third party licensed in the State of California.

**NFPA 13D 2016 Edition, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes** is hereby amended as follows:

**Section 7.1.2** is hereby revised to read as follows:

**7.1.2** The sprinkler system piping shall not have separate control valves installed unless supervised by a central station, proprietary, or remote station alarm service.

**NFPA 14, 2013 Edition, Installation of Standpipe and Hose Systems** is hereby amended as follows:

**Section 7.3.1.1** is hereby revised to read as follows:

**7.3.1.1** Class I and III Standpipe hose connections shall be unobstructed and shall be located not less than 18 inches or more than 24 inches above the finished floor. Class II Standpipe hose connections shall be unobstructed and shall be located not less than 3 feet or more than 5 feet above the finished floor.

**NFPA 24, 2016 Edition, Standard for the Installation of Private Fire Service Mains and Their Appurtenances** is hereby amended as follows:

**Section 6.2.8.1** is hereby added as follows:

**6.2.8.1** All indicating valves controlling fire suppression water supplies shall be painted OSHA red.

Exceptions:

1. Brass or bronze valves on sprinkler risers mounted to the exterior of the building may be left unpainted.
2. Where OS&Y valves on the detector check assembly are the only control valves, at least one OS&Y valve shall be painted red.

**Section 6.2.9** is hereby revised to read as follows:

All connections to private fire service mains for fire protection systems shall be arranged in accordance with one of the following so that they can be isolated:

- (1) A post indicator valve installed not less than 40 ft (12 m) from the building
  - (a) For buildings less than 40 ft (12 m) in height, a post indicator valve shall be permitted to be installed closer than 40 ft (12 m) but at least as far from the building as the height of the wall facing the post indicator valve.
- (2) A wall post indicator valve
- (3) An indicating valve in a pit, installed in accordance with Section 6.4
- (4) A backflow preventer with at least one indicating valve not less than 40 ft (12 m) from the building
  - (a) For buildings less than 40 ft (12 m) in height, a backflow preventer with at least one indicating valve shall be permitted to be installed closer than 40 ft (12 m) but at least as far from the building as the height of the wall facing the backflow preventer.
- (5) Control valves installed in a fire-rated room accessible from the exterior
- (6) Control valves in a fire-rated stair enclosure accessible from the exterior

**Section 10.1.5** is hereby added as follows:

**10.1.5** All ferrous pipe and joints shall be polyethylene encased per AWWA C150, Method A, B, or C. All fittings shall be protected with a loose 8-mil polyethylene tube or sheet. The ends of the tube or sheet shall extend past the

joint by a minimum of 12 inches and be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this section.

Exception: 304 or 316 Stainless Steel pipe and fittings.

**Section 10.4.1.1** is hereby revised to read as follows:

**10.4.1.1** All bolted joint accessories shall be cleaned and thoroughly coated with asphalt or other corrosion-retarding material after installation.

Exception: Bolted joint accessories made from 304 or 316 stainless steel.

**Section 10.4.1.1.1** is hereby added as follows:

**10.4.1.1.1** All bolts used in pipe-joint assembly shall be 316 stainless steel.

**Section 10.4.3.2** is hereby revised to read as follows:

**10.4.3.2** Where fire service mains enter the building adjacent to the foundation, the pipe may run under a building to a maximum of 24 inches, as measured from the interior face of the exterior wall to the center of the vertical pipe. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints or it shall comply with 10.4.3.2.1 through 10.4.3.2.4.

**SECTION 3.** Chapter 10-32 of the Laguna Hills Municipal Code is hereby amended and restated in its entirety to read as follows:

### **Chapter 10-32 CALIFORNIA MECHANICAL CODE**

#### **10-32.010 Adoption of the California Mechanical Code.**

The California Mechanical Code, 2016 Edition, based on the 2015 Uniform Mechanical Code as published by the International Association of Plumbing and Mechanical Officials, is hereby adopted and incorporated by reference, as if set forth at length herein, as the Mechanical Code of the City of Laguna Hills, regulating and controlling the design, construction, installation, quality of materials, location, operation and maintenance of heating, ventilating, cooling, refrigeration systems, incinerators and other miscellaneous heat producing appliances. Not less than one copy of said code

has been filed in the office of the City Clerk and shall be made available for public inspection.

**SECTION 4.** Chapter 10-36 of the Laguna Hills Municipal Code is hereby amended and restated in its entirety to read as follows:

**Chapter 10-36 CALIFORNIA ELECTRICAL CODE**

**10-36.010 Adoption of the California Electrical Code.**

The California Electrical Code, 2016 Edition, based on the 2014 National Electrical Code as published by the National Fire Protection Association, is hereby adopted and incorporated by reference, as if set forth at length herein, as the Electrical Code of the City of Laguna Hills, regulating all installation, arrangement, alteration, repair, use and other operation of electrical wiring, connections, fixtures and other electrical appliances on premises within the City. Not less than one copy of said code has been filed in the office of the City Clerk and shall be made available for public inspection.

**SECTION 5.** Chapter 10-40 of the Laguna Hills Municipal Code is hereby amended and restated in its entirety to read as follows:

**Chapter 10-40 CALIFORNIA PLUMBING CODE**

**10-40.010 Adoption of the California Plumbing Code.**

The California Plumbing Code, 2016 Edition, based on the 2015 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials, is hereby adopted and incorporated by reference, as if set forth at length herein, as the Plumbing Code of the City of Laguna Hills, regulating erection, installation, alteration, repair, relocation, replacement, maintenance or use of plumbing systems within the City. Not less than one copy of said code has been filed in the office of the City Clerk and shall be made available for public inspection.

**SECTION 6.** Chapter 10-48 of the Laguna Hills Municipal Code is hereby amended and restated in its entirety to read as follows:

**Chapter 10-48 CALIFORNIA RESIDENTIAL CODE**

**10-48.010 Adoption of the California Residential Code.**

The California Residential Code, 2016 Edition, based on the 2015 International Residential Code as published by the International Code Council together with the

amendments provided in this chapter, is hereby adopted and incorporated by reference, as if set forth at length herein, as the Residential Code of the City of Laguna Hills regulating the construction, alteration, movement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures in the City. Not less than one copy of said code has been filed in the office of the City Clerk and shall be made available for public inspection.

**10-48.020 Amendments to the Residential Code.**

**Chapter 2 Definitions.**

**Section 202 Definitions** is hereby revised by adding "OCFA" and "Spark Arrester" as follows:

**OCFA:** Orange County Fire Authority, fire authority having jurisdiction.

**SPARK ARRESTER.** A listed device constructed of noncombustible material specifically for the purpose of meeting one of the following conditions:

3. Removing and retaining carbon and other flammable particles/debris from the exhaust flow of an internal combustion engine in accordance with California Vehicle Code Section 38366.
4. Fireplaces that burn solid fuel in accordance with California Building Code Chapter 28.

**Chapter 3 Building Planning.**

**Section R301.9 Fuel Modification Requirements for New Construction** is hereby added as follows:

**R301.9 Fuel Modification Requirements for New Construction.** All new structures and facilities adjoining land containing hazardous combustible vegetation shall be approved and in accordance with the requirements of OCFA Guideline C-05 "Vegetation Management Guideline – Technical Design for new Construction Fuel Modification Plans and Maintenance Program."

**Section R309.6 Fire sprinkler attached garages, and carports with habitable space above** is hereby amended by modifying the exception to read as follows:

**Exception:** An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing carports and/or garages that do not have an automatic fire sprinkler system installed unless a sprinkler system is required in accordance with California Fire Code Section 903.2.8.

**Section R313.1 Townhouse automatic fire sprinkler systems** is hereby amended by modifying the exception to read as follows:

**Exception:** An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing townhouses that do not have an automatic fire sprinkler system installed unless a sprinkler system is required in accordance with California Fire Code Section 903.2.8.

**Section R313.2 One- and two-family dwellings automatic fire sprinkler systems** is hereby amended by modifying the exception to read as follows:

**Exception:** An automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with an automatic sprinkler system unless a sprinkler system is required in accordance with California Fire Code Section 903.2.8.

**Section R313.3.6.2.2 Calculation procedure** is hereby revised to read as follows:

**R313.3.6.2.2 Calculation procedure.** Determination of the required size for water distribution piping shall be in accordance with the following procedure and California Fire Code Section 903.3.5.3.

*(The remainder of the section is unchanged)*

## **Chapter 10 Chimneys and Fireplaces.**

**Section R1001.13 Outdoor Fireplaces, Fire Pits, Fire Rings, or similar devices** is hereby added as follows:

**R1001.13 Outdoor Fireplaces, Fire Pits, Fire Rings, or similar devices.** Outdoor fireplaces, fire pits, fire rings, or similar exterior devices shall comply with this section.

**Exception:** Barbeques, grills, and other portable devices intended solely for cooking

**Section R1001.13.1 Gas-fueled devices** is hereby added as follows:

**R1001.13.1 Gas-fueled devices.** Outdoor fireplaces, fire pits and similar devices fueled by natural gas or liquefied-petroleum gas are allowed when approved by the Building Department and the device is designed to only burn a gas flame and not wood or other solid fuel. At R-3 occupancies, combustible construction shall not be located within three feet of an atmospheric column that extends vertically from the perimeter of the device. Where a permanent Building Department approved hood and vent is installed, combustible construction may encroach upon this column between the bottom of the hood and the vent opening. Where chimneys or vents are installed, they shall have a spark arrester in accordance with Section R1003.9.2.

#### **Chapter 44 Referenced Standards.**

**NFPA 13, 2016 Edition, Standard for the Installation of Sprinkler Systems** is hereby amended as follows:

**Section 6.7.3** is hereby revised to read as follows:

**6.7.3** Fire department connections (FDC) shall be of an approved type. The location shall be approved and be no more than 150 feet from a public hydrant. The FDC may be located within 150 feet of a private fire hydrant when approved by the fire code official. The size of piping and the number of 2½" inlets shall be approved by the fire code official. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red or as approved. When the fire sprinkler density design requires more than 500 gpm (including inside hose stream demand), or a standpipe system is included, four 2½" inlets shall be provided.

**Section 8.3.3.1** is hereby revised to read as follows:

**8.3.3.1** When fire sprinkler systems are installed in shell buildings of undetermined use (Spec Buildings) other than warehouses (S occupancies),

fire sprinklers of the quick-response type shall be used. Use is considered undetermined if a specific tenant/occupant is not identified at the time the fire sprinkler plan is submitted. Sprinklers in light hazard occupancies shall be one of the following:

1. Quick-response type as defined in 3.6.4.8
2. Residential sprinklers in accordance with the requirements of 8.4.5
3. Quick response CMSA sprinklers
4. ESFR sprinklers
5. Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
6. Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

**Section 11.1.1.1** is hereby added as follows:

**11.1.1.1** When fire sprinkler systems are required in buildings of undetermined use other than warehouses, they shall be designed and installed to have a fire sprinkler density of not less than that required for an Ordinary Hazard Group 2 use, with no reduction(s) in density or design area. Warehouse fire sprinkler systems shall be designed to Figure 16.2.1.3.2 (d) curve "G". Use is considered undetermined if a specific tenant/occupant is not identified at the time the sprinkler plan is submitted. Where a subsequent use or occupancy requires a system with greater capability, it shall be the responsibility of the occupant to upgrade the system to the required density for the new use or occupancy.

**Section 11.2.3.1.1.1** is hereby added as follows:

**11.2.3.1.1.1** The available water supply for fire sprinkler system design shall be determined by one of the following methods, as approved by the fire code official:

1. Subtract the project site elevation from the low water level for the appropriate pressure zone and multiply the result by 0.433;
2. Use a maximum of 40 psi, if available;
3. Utilize the OCFA water-flow test form/directions to document a flow test conducted by the local water agency or an approved third party licensed in the State of California.

**NFPA 13D 2016 Edition, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes** is hereby amended as follows:

**Section 7.1.2** is hereby revised to read as follows:

**7.1.2** The sprinkler system piping shall not have separate control valves installed unless supervised by a central station, proprietary, or remote station alarm service.

**SECTION 7.** Chapter 10-52 of the Laguna Hills Municipal Code is hereby amended and restated in its entirety to read as follows:

**Chapter 10-52 California Green Building Standards Code**

**10-52.010 Adoption of the California Green Building Standards Code.**

The California Green Building Standards Code, 2016 Edition, is hereby adopted and incorporated by reference, as if set forth at length herein, as the green building standards code of the City of Laguna Hills regulating the construction, alteration, movement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures in the City. Not less than one copy of said code has been filed in the office of the City Clerk and shall be made available for public inspection.

**SECTION 8.** Title 10, of the Laguna Hills Municipal Code is hereby amended by adding a new Chapter 10-60 (California Energy Code) to read as follows:

**Chapter 10-60 California Energy Code**

**10-60.010 Adoption of the California Energy Code.**

The California Energy Code, 2016 Edition, is hereby adopted and incorporated by reference, as if set forth at length herein, as the energy code of the City of Laguna Hills regulating the construction, alteration, movement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures in the City. Not less than one copy of said code has been filed in the office of the City Clerk and shall be made available for public inspection.

**SECTION 9.** Title 10, of the Laguna Hills Municipal Code is hereby amended by adding a new Chapter 10-64 (California Referenced Standards Code) to read as follows:

**Chapter 10-64 California Referenced Standards Code**

**10-64.010 Adoption of the California Referenced Standards Code.**

The California Referenced Standards Code, 2016 Edition, is hereby adopted and incorporated by reference, as if set forth at length herein, as the referenced standards code of the City of Laguna Hills regulating the construction, alteration, movement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures in the City. Not less than one copy of said code has been filed in the office of the City Clerk and shall be made available for public inspection.

**SECTION 10.** Title 10, of the Laguna Hills Municipal Code is hereby amended by adding a new Chapter 10-68 (California Existing Building Code) to read as follows:

**Chapter 10-68 California Existing Building Code**

**10-68.010 Adoption of the California Existing Building Code.**

The California Existing Building Code, 2016 Edition, based on the 2015 International Existing Building Code as published by the International Code Council is hereby adopted and incorporated by reference, as if set forth at length herein, as the City of Laguna Hills existing building code regulating the construction, alteration, movement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures in the City. Not less than one copy of said code has been filed in the office of the City Clerk and shall be made available for public inspection.

**SECTION 11.** The City Council finds that this Ordinance is not subject to the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations Title 14, Chapter 3, Sections 15060(c)(2) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060(c)(3) (the activity is not a project as defined in Section 15371), because it has no potential for resulting in physical change to the environment, directly or indirectly.

**SECTION 12.** If any section, subsection, subdivision, sentence, clause, phrase, or portion of this Ordinance 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 of this Ordinance. The City Council hereby declares that it

would have adopted this Ordinance and each section, subsection, subdivision, sentence, clause, phrase, or portion thereof, irrespective of the fact that any one or more section, subsection, subdivision, sentence, clause, phrase, or portion thereof be declared invalid or unconstitutional.

**SECTION 13.** The City Clerk shall certify as to the adoption of this Ordinance and cause a summary thereof to be published within (15) days of the adoption and shall post a Certified copy of this Ordinance, including the vote for and against the same, in the Office of the City Clerk, in accordance with Government Code Section 36933.

PASSED, APPROVED, AND ADOPTED this 13<sup>th</sup> day of December 2016.

  
\_\_\_\_\_  
DON SEDGWICK , MAYOR

ATTEST:

  
\_\_\_\_\_  
MELISSA AU-YEUNG, CITY CLERK

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) ss  
CITY OF LAGUNA HILLS )

I, Melissa Au-Yeung, City Clerk of the City of Laguna Hills, California, DO HEREBY CERTIFY that the foregoing Ordinance No. 2016-7 was duly introduced and placed upon its first reading at a Regular Meeting of the City Council on the 22<sup>nd</sup> day of November 2016, and that thereafter, said Ordinance was duly adopted and passed at a Regular Meeting of the City Council held on the 13<sup>th</sup> day of December 2016, by the following vote, to wit:

AYES: Council Members Gilbert, Heft, Kogerman, Mayor Pro Tempore Carruth, and Mayor Sedgwick

NOES: None

ABSENT: None

ABSTAIN: None

(SEAL)

  
\_\_\_\_\_  
MELISSA AU-YEUNG, CITY CLERK

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) ss  
CITY OF LAGUNA HILLS )

AFFIDAVIT OF POSTING  
AND PUBLICATION

MELISSA AU-YEUNG, being first duly sworn, deposes and says:

That she is the duly appointed and qualified City Clerk of the City of Laguna Hills;

That in compliance with State Laws of the State of California, ORDINANCE NO. 2016-7, being:

AN ORDINANCE OF THE CITY OF LAGUNA HILLS, CALIFORNIA, AMENDING TITLE 10 OF THE LAGUNA HILLS MUNICIPAL CODE (BUILDINGS AND CONSTRUCTION) AND ADOPTING BY REFERENCE THE 2016 EDITION OF THE CALIFORNIA BUILDING STANDARDS CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24), CONSISTING OF THE 2016 CALIFORNIA BUILDING CODE; THE 2016 CALIFORNIA MECHANICAL CODE; THE 2016 CALIFORNIA ELECTRICAL CODE; THE 2016 CALIFORNIA PLUMBING CODE; THE 2016 CALIFORNIA RESIDENTIAL CODE; THE 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE; THE 2016 CALIFORNIA ENERGY CODE; THE 2016 BUILDING REFERENCE STANDARDS CODE; AND THE 2016 CALIFORNIA EXISTING BUILDING CODE, TOGETHER WITH CERTAIN AMENDMENTS, ADDITIONS, AND DELETIONS THERETO.

on the 2<sup>nd</sup> day of December 2016, was published in summary in the Saddleback Valley News and on the 23<sup>rd</sup> day of December 2016, was published in summary in the Saddleback Valley News; and was, in compliance with City Resolution No. 2004-05-25-2, on the 23<sup>rd</sup> day of November 2016, and the 14<sup>th</sup> day of December 2016, caused to be posted in three places in the City of Laguna Hills, to wit:

Laguna Hills City Hall  
Laguna Hills Community Center  
La Paz Center

  
\_\_\_\_\_  
MELISSA AU-YEUNG, CITY CLERK  
Laguna Hills, California