

ORDINANCE NO. 326

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LAKE FOREST CALIFORNIA, AMENDING CHAPTERS 8.02, 8.04, 8.06, 8.12, 8.14, 8.16, 8.18, 8.20, 8.22, 8.24, AND 8.26 OF TITLE 8 OF THE CITY OF LAKE FOREST MUNICIPAL CODE AND ADOPTING BY REFERENCE THE 2019 EDITION OF THE CALIFORNIA BUILDING STANDARDS CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24), CONSISTING OF THE 2019 CALIFORNIA BUILDING CODE, THE 2019 CALIFORNIA RESIDENTIAL CODE, THE 2019 CALIFORNIA ELECTRICAL CODE, THE 2019 CALIFORNIA MECHANICAL CODE, THE 2019 CALIFORNIA PLUMBING CODE, AND THE 2019 CALIFORNIA FIRE CODE; THE 1997 EDITION OF THE UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS; THE 1997 EDITION OF THE UNIFORM HOUSING CODE; AND THE 1997 EDITION OF THE UNIFORM SIGN CODE, TOGETHER WITH CERTAIN ADDITIONS, AMENDMENTS AND DELETIONS

WHEREAS, pursuant to California Government Code section 50022.1 *et seq.* the City of Lake Forest ("City") may adopt by reference the California Building Standards Code, 2019 Edition as provided in Title 24 and 25 of the California Code of Regulations, and other model codes, including the 1997 Uniform Code for the Abatement of Dangerous Buildings, the 1997 Uniform Housing Code, and the 1997 Uniform Sign Code; and

WHEREAS, the California Building Standards Commission ("Commission") adopted the 2019 California Building Standards Code, which will come into effect on January 1, 2020; and

WHEREAS, California Health & Safety Code sections 17958.5 and 18941.5 authorize cities and counties 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, the City desires to adopt the California Building Standards Code with the necessary amendments to assure the Codes are tailored to the particular safety needs of the City as required by its unique climatic, geological and topographical conditions; and

WHEREAS, the City held a public hearing on December 3, 2019 at which time all interested persons had the opportunity to appear and be heard on the matter of adopting the California Building Standards Code as amended herein; and

WHEREAS, the City published notice of the aforementioned public hearing pursuant to California Government Code Section 6066 on November 14, 2019 and November 21, 2019; and

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

**THE CITY COUNCIL OF THE CITY OF LAKE FOREST, CALIFORNIA,
DOES ORDAIN AS FOLLOWS:**

SECTION 1. Findings. The City Council hereby finds that the proposed amendments to the 2019 California Building Standards Code are reasonably necessary because of local climatic, geologic, or topographic conditions, and adopts the findings provided below to support the modifications to the 2019 California Building Standards Code.

I. Climatic Conditions

- A. The jurisdiction of Lake Forest is 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, streetlights, and utility poles, and the requirement to climb 75 feet vertically up flights of stairs will greatly impact the response time to reach an incident scene. Additionally, there is a significant increase in the amount of wind force at 60 feet above the ground. Use of aerial type firefighting apparatus above this height would place rescue personnel at increased risk of injury.
- 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. It would also leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of available water to floors in a fire.
- 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.

II. 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 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 which 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.

III. 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. With the probability of strong aftershocks there exists a need to provide increased protection for anyone on upper floors of buildings. 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 throughout 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 in contact with soils are utilized.
- D. Portions of the County contain active or former oil production fields. These areas contain a variety of naturally occurring gasses, liquids, and vapors. These compounds present toxicity or flammability hazards to building occupants. Evaluation of these hazards and the risks they pose to development is necessary to implement appropriate mitigation.

Due to the topographical conditions of sprawling development separated by waterways and narrow and congested streets and the expected infrastructure damage inherent in the seismic zone 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) requirements for a given structures. Additional fire protection is also justified to match the current resources of firefighting equipment and personnel within the Orange County Fire Authority.

IV. Roofing

Untreated wood roofs cause or contribute to serious fire hazard and to the rapid spread of fires when such fires are accompanied by high winds. Pieces of burning wooden roofs become flying brands and are carried by the wind to other locations and thereby spread fire quickly. Grand Jury Report findings support this concern.

VI. Administrative

This amendment is necessary for administrative clarification and does not modify a building standard pursuant to California Health & Safety Code Sections 17958, 17985.7 and/or 18941.5. This amendment establishes administrative standards for the effective enforcement of the building standards in the City of Lake Forest.

The findings above are applicable to amendments to the 2019 California Building Code and California Residential Code, as detailed in the following tables:

CODE SECTION	California Building Code Local Amendment	FINDINGS
105	Plan Review Application	Admin

109	Enforcement / Fees	Admin
110	Inspections	Admin
111	Certificate of Occupancy	Admin
113	Board of Appeals	Admin
114	Violations	Admin
117	Underground Utilities Required	Admin
202	Definitions	Admin
701	Materials and Construction Methods for Exterior Wildlife Exposure Scope	Admin, I & II
710A.3.3	Detached accessory structures	I & II
710A.4	Accessory structure material	I & II
903.2	Where required (Sprinklers)	II & III-B
903.2.8	Group R (Sprinklers)	II-B & III-B
903.3.5.3	Hydraulically calculated systems	I & II
903.4	Sprinkler system supervision and alarms (of valves)	III-A
905.4	Location of Class I standpipe hose connections	III-A
1505	Roofing Requirements	IV
Chapter 35	Reference Standards	Admin, II & III

CODE SECTION	California Residential Code Local Amendment	FINDINGS
R105	Permits	Admin
R108	Fees	Admin
R109	Inspections	Admin
R110	Certificate of Occupancy	Admin
R112	Board of Appeals	Admin
R113	Violations	Admin
R202	Definitions	Admin
R301.9	Development on or near land containing or emitting toxic, combustible or flammable liquids, gases or vapors	III
R301.10	Fuel modification requirements for new construction	I & II
R309.6	Fire sprinkler attached garages, carports with habitable space above	III

R313.1	Townhouse automatic fire sprinkler systems	III
R313.2	One- and two-family dwellings automatic fire sprinkler system	III
R313.3.6.2.2	Calculation procedures	III
R319	Site Address	II
R337.1.3	Application	Admin, I & II
R337.1.7	Fuel modification requirements for new construction	I & II
R902	Roofing Requirements	IV
R1001.13	Exterior Fire Devices	I & II
Chapter 44 and Appendix O	Reference Standards	Admin, II & III

CODE SECTION	California Electrical Code Local Amendment	FINDINGS
89.108	Enforcement / Fees	Admin

CODE SECTION	California Plumbing Code Local Amendment	FINDINGS
104	Permit Fees	Admin
106	Enforcement / Fees	Admin

CODE SECTION	California Mechanical Code Local Amendment	FINDINGS
104	Enforcement / Fees	Admin

CODE SECTION	California Fire Code Local Amendments	FINDINGS
110.4	Violation penalties	Admin
110.4.2	Infraction and misdemeanor	Admin
202	Definitions	Admin
304.1.2	Vegetation	I & II
305.6	Hazardous conditions	I & II

305.7	Disposal of rubbish	I & II
307	Open burning, recreational fires, fire pits, fire rings, and outdoor fireplaces	Admin
307.6	Outdoor Fireplaces, Fire Pits, Fire Rings, and Outdoor Fireplaces	I & II
307.6.1	Gas-fueled devices	I & II
307.6.2	Devices using wood or fuels other than natural gas or LPG	I & II
307.6.2.1	Where prohibited	I & II
308.1.6.3	Sky lanterns	I & II
321	Fuel modification requirements for new construction	N/A
322	Clearance of brush or vegetation growth from roadways	N/A
323	Unusual circumstances	N/A
324	Use of equipment	N/A
324.2	Spark arresters	N/A
407.5	Hazardous materials inventory statement	Admin
501.1	Scope (fire service features)	Admin
510.1	Emergency responder radio coverage in new buildings	Admin
510.2	Emergency responder radio coverage in existing buildings	Admin
510.3	Permit required	Admin
903.2	Where required (Sprinklers)	II & III-B
903.2.8	Group R (Sprinklers)	II-B & III-B
903.3.5.3	Hydraulically calculated systems	I & II
1201.1.1	Energy systems, battery charging devices	I & II
2801.2	Permit (Miscellaneous combustible storage)	Admin
2808.2	Storage site	Admin
2808.3	Size of piles	I
2808.4	Pile separation	I
2808.7	Pile fire protection	I
2808.9	Material-handling equipment	I

2808.11	Temperature control	I
2808.11.1	Pile temperature control	I
2808.11.2	New material temperature control	I
2808.12	Water availability for piles	I
2808.13	Tipping area	I
2808.14	Emergency contact	Admin
4906.3	Vegetation	I
4908	Fuel modification requirements for new construction	I
5001.5.2	Hazardous materials inventory statement (HMIS)	Admin
5003.1.1.1	Extremely hazardous substances	I & III
5608.2	Retail fireworks	Admin
5608.3	Application for permit	Admin
5701.1.1	On-Demand Mobile Fueling	Admin, I & II
5801.1	Scope	Admin, I & II
Chapter 80	Referenced Standards	
	2016 NFPA 13 (Sprinkler Systems)	Admin, II & III
	2016 NFPA 13-D (Single Family Sprinkler Systems)	I & II
	2013 NFPA 14 (Standpipe Systems)	Admin
	2016 NFPA 24 (Underground Water Supply Systems)	Admin & III

SECTION 2. Chapter 8.02 of the Lake Forest Municipal Code is hereby amended and restated in its entirety to read as follows:

“Chapter 8.02 California Building Code
8.02.001 Adoption of California Building Code.

There is adopted by the Lake Forest City Council for the purpose of prescribing regulations for the erection, construction, enlargement, alteration, repair, improving, removal, conversion, demolition, occupancy, equipment, use, height, area and maintenance of all buildings and structures California Building Code, 2019 Edition, based on the 2018 International Building Code as published by the International Code Council, including Chapter 1, together with the amendments provided in this chapter, is hereby adopted by reference as the Building Code of the City of Lake Forest, regulating the erection, construction, enlargement, alteration,

repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings and/or structures in the City.

8.02.020 California Building Code amended.

The 2019 California Building Code is hereby amended as follows:

- A. Chapter 1 Division II – Section 105.2 Work Exempt From Permit, Building, Item 2, of the California Building Code is hereby amended to read as follows:

2. Fences not over 6 feet (2134 mm) tall.

Exception: Walls and fences less than six (6) feet in height which are required as a condition of project approval are required to have permits.

- B. Chapter 1 Division II – Section 105.3.2 is amended to read as follows:

105.3.2 Expiration of Plan Review. Any application for a permit for any proposed work shall be deemed to have been abandoned within one calendar year following the date of application, unless a permit is issued, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. No extensions shall be allowed. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay the required fees.

- C. Chapter 1 Division II Section 105.5 is amended to read as follows:

Section 105.5 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 12 months after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Before such work can be recommenced a new permit shall be first obtained to do so, and the fee therefore shall be one-half the amount required for a new permit for such work; provided, however, that:

1. No changes have been made or will be made in the original plans and specifications for such work; and
2. Such suspension or abandonment has not exceeded one (1) year; and
3. A re-endorsement of the compliance of the plans with the applicable regulations, by the Director of Development Services, shall be obtained.

In order to renew action on a permit after expiration, the permittee shall pay a new full permit fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The Building Official may extend the time for action by the permittee one or more times for a period not exceeding one hundred eighty (180) days each, upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. Such written request shall be submitted no later than sixty (60) days after expiration of the permit.

D. Chapter 1 Division II Section 109.1 is amended to read as follows:

109.1 Payment of Fees. A fee as established by Resolution of the City Council shall be paid for each permit at time of issuance.

E. Chapter 1 Division II Section 109.2 is amended to read as follows:

109.2 Schedule of Permit Fees. Permit and plan check fees shall be based on the current City of Lake Forest fee schedule adopted by the City Council and amended from time to time. When applicable, the determination of value or valuation under any of the provision of this Code shall be made by the Building Official. In instances where project valuation is used to determine permit and/or plan check fees, the value to be used in computing the building permit and building plan review fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems and any other permanent equipment.

F. Chapter 1 Division II Section 109.6 is amended to read as follows:

109.6 Fee Refunds. The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected.

The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.

The building official may authorize refunding of not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan reviewing is done.

The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment. No refund will be made for less than \$30.00. Permit and plan check fees will be refunded in their entirety when collected in error.

G. Chapter 1 Division II Sections 109.7 and 109.8 are added to read as follows:

109.7 Plan Review Fees. When submittal documents are required by Section 107.1, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. Said plan review fee shall be established by Resolution of the City Council.

The plan review fees specified in this subsection are separate fees from the permit fees specified in Section 109.1 and are in addition to the permit fees.

When submittal documents are incomplete or changed so as to require additional plan review or when the project involves deferred submittal items as defined in Section 107.3.4.1, an additional plan review fee shall be charged at the rate shown in the fee schedule.

109.8 Investigation Fees: Work without a Permit.

109.8.1 Investigation. Whenever any work for which a permit is required by this code has been commenced without first obtaining said permit, a special investigation shall be made before a permit may be issued for such work.

109.8.2 Fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code. The minimum investigation fee shall be the same as the minimum fee set forth in the fee schedule. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

H. Chapter 1 Division II – Section 110.7 Reinspections is hereby added to read as follows:

Section 110.7 Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This subsection is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code,

but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise made available on the work site; the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the Building Official.

To obtain a reinspection, the applicant shall file an application therefore in writing upon a form furnished for that purpose and pay the reinspection fee as established by the City Council.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

- I. Chapter 1 Division II – Section 111.3 is hereby amended to read as follows:

111.3 Temporary occupancy. If the Building Official finds that no substantial hazard will result from occupancy of any building or portion thereof before the same is completed, he or she may issue a Temporary Certificate of Occupancy for the use of a portion or portions of a building or structure prior to the completion of the entire building or structure. The application fee for such Temporary Certificate shall be as established by the City Council. The Temporary Certificate of Occupancy may be subject to such conditions as deemed necessary by the Building Official. The violation or failure of any such condition imposed shall be grounds for revocation of such Temporary Certificate of Occupancy.

- J. Chapter 1 Division II – Section 113.4 is hereby added to read as follows:

113.4 Establishment. The City Council shall be the Board of Appeals.

- K. Chapter 1 Division II – Section 114.1 is hereby amended to read as follows:

114.1 Unlawful acts.

It shall be unlawful for any person, firm, or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy, or maintain any building or structure, or cause or permit the same to be done in violation of this Code.

Any person, firms, or corporation violating any of the provisions of this Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Code is committed, continued, or permitted, and upon conviction of any such violation such person shall be punished by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment.

- L. Chapter 1 Division II – Section 117 is hereby added to read as follows:

SECTION 117 UNDERGROUND UTILITIES REQUIRED.

The Building Official shall, as a condition precedent to the issuance of a Building Permit, require all utility services located within the exterior boundary lines of lot or parcel of property to be installed underground if:

1. The property is to be developed with a new or relocated main building;
2. The remodeling, alteration, or addition to an existing main building exceeds fifty (50) percent of the value and/or area of the existing building;
3. A residential building or use is converted to any nonresidential use or purpose.

For purposes of this section, the term “main building” shall mean a building in which is conducted the principal use of the lot or building site on which it is located. If it is determined that practical difficulties, or unreasonable hardships inconsistent with the purposes of this chapter and unique to a particular parcel of property, would result from the literal interpretation of this section, the Building Official may waive, modify, or delay the imposition of any undergrounding requirement imposed pursuant to the section upon written application of any affected property owner. The Building Official shall notify the applicant of his decision in writing by certified mail. If the Building Official determines to delay the installation of required underground utilities, he may require a recorded agreement guaranteeing the future performance of the work, together with adequate performance security enforceable by the City in the form of a cash deposit, bond, letter of credit, or other instrument or security satisfactory to the City Attorney.

For purposes of this section, appurtenances and associated equipment such as, but not limited to, surface-mounted transformers, pedestal-mounted terminal boxes and meter cabinets, and concealed ducts in an underground system, may be placed above ground.

Any person dissatisfied with the decision of the Building Official may file an appeal pursuant to Section 2.04.100 to 2.04.130 of the Lake Forest Municipal Code.

The owner or developer of the property is responsible for complying with requirements of this section and shall provide all necessary facilities on the property to receive such service from the supplying utilities.

- M. Section 202 Definitions is hereby revised by adding "Spark Arresters," 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.

- N. Adopt Chapter 7A Materials and Construction Methods for Exterior Wildfire Exposure in its entirety with the following amendments:

- O. 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.

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.
- P. 710A.3.3 Detached accessory structures within 50 feet of an applicable building shall comply with the requirements of this section.
- Q. 710A.4 Requirements. Accessory structures shall be constructed of non-combustible or ignition-resistant materials.
- R. Adopt Chapter 9 of the California Building Code, Fire Protection Systems, in its entirety with the following amendments:

Section 903.2 Where Required, is hereby revised as follows:

903.2 Where Required. Approved automatic sprinkler systems in buildings and structures shall be provided when the following condition exists:

New Buildings: Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.12, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area, as defined in Section 202, exceeds 5,000 square feet (465 square meters) or more than two stories in height, regardless of fire areas or allowable area.

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

Group R-3 occupancies. Group R-3 occupancies shall comply with Section 903.2.8.

- S. SECTION 903.2.8, Group R is hereby revised 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:

New Buildings: An automatic sprinkler system shall be installed throughout all new buildings.

Existing Buildings: An automatic sprinkler system shall be installed throughout any existing building when the floor area of the Alteration within any two-year period exceeds 50% of area of the existing structure and the building area exceeds 5,500 square feet. When the cost of installing an

approved automatic sprinkler system exceeds 5% of the cost of the Alteration, with the approval of the fire code official, the required automatic sprinkler system may be omitted.

Exceptions to Existing Buildings requirement:

1. Existing Group R-3 occupancies converted to Group R-3.1 occupancies not housing non-ambulatory 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 non-ambulatory client and complying with Section 425.8.3.3 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 or mentally-disabled, and building or portions thereof housing such children not more than two stories in height, which 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 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.

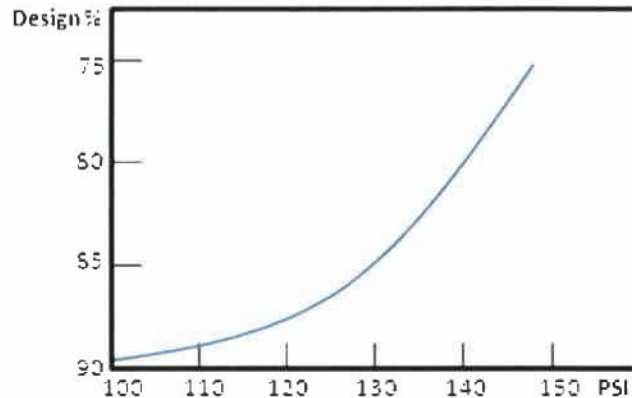
An automatic sprinkler system designed in accordance with Section 903.3.1.3 shall not be utilized in Group R-2.1 or R-4 occupancies.

- T. 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 required by the Fire Code Official, the fire sprinkler system shall not exceed water supply capacity specified by Table 903.3.5.3:

TABLE 903.3.5.3
Hydraulically Calculated Systems



U. Section 903.4 Sprinkler system supervision and alarms, is hereby revised by deleting item 3 and 5 and renumbering the Exceptions as follows:

1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Limited area systems serving fewer than 20 sprinklers.
3. Jockey pump control valves that are sealed or locked in the open position.
4. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
5. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

V. Section 905.4 Location of Class I Standpipe Hose Connections, is hereby amended by adding item 7 as follows:

7. The centerline of the 2.5 inch (63.5 mm) outlet shall be no less than 18 inches (457.2 mm) and no more than 24 inches above the finished floor.

W. Table 1505.1 is hereby amended by the deletion of Table 1505.1 and the addition of a new Table 1505.1 thereto, to read as follows:

TABLE 1505.1
MINIMUM ROOF COVERING CLASSIFICATIONS
TYPES OF CONSTRUCTION

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
B	B	B	B	B	B	B	B	B

- X. Section 1505.1.3 Roof Coverings Within All Other Areas is hereby amended to read as follows:

1505.1.3 Roof coverings within all other areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B.

- Y. Chapter 35 Referenced Standards is hereby adopted and revised as follows:

Chapter 35 Referenced Standards is adopted in its entirety with the following amendments:

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

- AA. 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.

- BB. 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

CC. 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.

DD. 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.

EE. 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:

FF. 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.

GG. NFPA 14, 2016 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.

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

II. 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.

JJ. 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

KK. 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

LL. 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.

MM. 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.

NN. 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 8.06 of the Lake Forest Municipal Code is hereby added in its entirety to read as follows:

“Chapter 8.06 California Residential Code

8.06.001 Adoption of California Residential Code.

California Residential Code, 2019 Edition, based on the 2018 International Residential Code as published by the International Code Council, including Chapter 1 and Appendix O, together with the amendments provided in this chapter, is hereby adopted by reference as the Residential Code of the City of Lake Forest, regulating the construction of one- and two-family residential dwellings within the City, of which code not less than one (1) copy has been made and is now filed in the office of the City Clerk; and the same is adopted and incorporated as fully as is set forth at length herein.

8.06.020 California Residential Code amended.

A. Chapter 1 Division II Section R105.2, Building, Item 2 in of the California Residential Code shall be amended to read as follows:

2. Fences not over six (6) feet high.

Exception: Walls and fences less than six (6) feet in height which are required as a condition of project approval are required to have permits.

B. Chapter 1 Division II Section R105.3.2 of the California Residential Code is amended to read as follows

R105.3.2 Time Limit of Application. Time limit of application. Any application for a permit for any proposed work shall be deemed to have been abandoned within one calendar year following the date of application, unless a permit is issued, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. No extensions shall be allowed. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay the required fees.

C. Chapter 1 Division II Section R105.5 of the California Residential Code is amended to read as follows:

Section 105.5 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 12 months after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Before such work can be recommenced a new permit shall be first obtained to do so, and the fee therefore shall be one-half the amount required for a new permit for such work; provided, however, that:

4. No changes have been made or will be made in the original plans and specifications for such work; and
5. Such suspension or abandonment has not exceeded one (1) year; and
6. A re-endorsement of the compliance of the plans with the applicable regulations, by the Director of Development Services, shall be obtained.

In order to renew action on a permit after expiration, the permittee shall pay a new full permit fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The Building Official may extend the time for action by the permittee one or more times for a period not exceeding one hundred eighty (180) days each, upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. Such written request shall be submitted no later than sixty (60) days after expiration of the permit.

- D. Chapter 1 Division II Section R108.1 of the California Residential Code is amended to read as follows:

R108.1 Payment of Fees. A fee as established by Resolution of the City Council shall be paid for each permit at time of issuance.

- E. Chapter 1 Division II Section R108.2 is amended to read as follows:

R108.2 Schedule of Permit Fees. The determination of value or valuation under any of the provision of this Code shall be made by the Building Official. The value to be used in computing the building permit and building plan review fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems and any other permanent equipment.

F. Chapter 1 Division II Section R108.5 is amended to read as follows:

R108.5 Fee Refunds. The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected.

The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.

The building official may authorize refunding of not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan reviewing is done.

The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment. No refund will be made for less than \$30.00. Permit and plan check fees will be refunded in their entirety when collected in error.

G. Chapter 1 Division II Section R108.7 is added to read as follows:

R108.7 Plan Review Fees. When submittal documents are required by Section R106.1, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. Said plan review fee shall be established by Resolution of the City Council.

The plan review fees specified in this subsection are separate fees from the permit fees specified in Section 109.1 and are in addition to the permit fees.

When submittal documents are incomplete or changed so as to require additional plan review or when the project involves deferred submittal items as defined in Section 107.3.4.1, an additional plan review fee shall be charged at the rate shown in the fee schedule.

H. Chapter 1 Division II Section R108.8 is added to read as follows:

R108.8 Investigation Fees: Work without a Permit.

R108.8.1 Investigation. Whenever any work for which a permit is required by this code has been commenced without first obtaining said permit, a special investigation shall be made before a permit may be issued for such work.

R108.8.2 Fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code. The minimum investigation fee shall be the same as the minimum fee set forth in the fee schedule. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

- I. Section R110.4 of the California Residential Code is amended to read as follows:

R110.4 Temporary Certificate. If the Building Official finds that no substantial hazard will result from occupancy of any building or portion thereof before the same is completed, he or she may issue a Temporary Certificate of Occupancy for the use of a portion or portions of a building or structure prior to the completion of the entire building or structure. The application fee for such Temporary Certificate shall be as established by the City Council. The Temporary Certificate of Occupancy may be subject to such conditions as deemed necessary by the Building Official. The violation or failure of any such condition imposed shall be grounds for revocation of such Temporary Certificate of Occupancy.

- J. Section R109.5 is hereby added to the California Residential Code is to read as follows:

Section R109.5 Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This subsection is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise made available on the work site; the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the Building Official.

To obtain a reinspection, the applicant shall file an application therefore in writing upon a form furnished for that purpose and pay the reinspection fee as established by the City Council.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

- K. Section R112.1 of the California Residential Code is amended to read as follows:

R112.1 General. The City Council shall be the Board of Appeals.

- L. Section R113.4 of the California Residential Code is amended to read as follows:

R113.4 Violations.

It shall be unlawful for any person, firm, or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy, or maintain any building or structure, or cause or permit the same to be done in violation of this Code.

Any person, firms, or corporation violating any of the provisions of this Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Code is committed, continued, or permitted, and upon conviction of any such violation such person shall be punished by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment.

- M. Section R202 of the California Residential Code is amended to read as follows:

Section 202 Definitions is hereby revised by adding "Hazardous Fire Area", "OCFA", and "Spark Arrester" as follows:

HAZARDOUS FIRE AREA. Includes all areas identified within California Fire Code Section 4906.2 and other areas as determined by the Fire Code Official as presenting a fire hazard due to the presence of combustible vegetation, or the proximity of the property to an area that contains combustible vegetation.

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:

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.

- N. Section R301.9 Fuel Modification Requirements for New Construction, of the California Residential Code, is hereby added as follows:

R301.9 Fuel Modification Requirements for New Construction. All new buildings to be built or installed in areas with or adjacent to land having hazardous combustible vegetation shall comply with the requirements in the edition of OCFA Vegetation Management Guidelines currently in use at the time.

- O. Section R309.6 Fire sprinklers attached garages, and carports with habitable space above, of the California Residential Code, is hereby amended by modifying the exception 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.

- P. Section R313.1 Townhouse automatic fire sprinkler systems, of the California Residential Code, is hereby amended by modifying the exception 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.

- Q. Section R313.2 One- and two-family dwellings automatic fire sprinkler systems, of the California Residential Code, is hereby amended by modifying the exception 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.

- R. Section R313.3.6.2.2 Calculation procedure is hereby revised as follows:

Section 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.

- S. Section R319 Site Address is hereby revised as follows:

R319 Site Address. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

- T. Section R337.1.3 Application is hereby revised to read as follows:

R337.1.3 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 Area, when materials and/or construction methods for exterior wildfire exposure were previously required at the property by the Building or Fire Code Official.

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 an applicable building.
2. Buildings of an accessory character classified as a Group U occupancy of any size located at 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.

- U. Section R337.1.7 Fuel Modification Requirements for New Construction is hereby added as follows:

R337.1.7 Fuel Modification Requirements for New Construction. All new buildings to be built or installed in hazardous fire areas shall comply with the following:

1. Preliminary fuel modification plans shall be submitted to and approved by the fire code official concurrent with the submittal for approval of any tentative map.
2. Final fuel modification plans shall be submitted to and approved by the fire code official prior to the issuance of a grading permit.
3. The fuel modification plans shall meet the criteria set forth in the Fuel Modification Section of the Orange County Fire Authority Vegetation Management Guidelines.
 - i. The fuel modification plan shall include provisions for the maintenance of the fuel modification in perpetuity.
4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approval from the fire code official.
5. All elements of the fuel modification plan shall be maintained in accordance with the approved plan and are subject to the enforcement process outlined in the Fire Code.

- V. Section R902.1 is amended by revising it to allow only class A or B roofs as follows:

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. A minimum Class A or B roofing shall be installed in areas designated by this section. Classes A or B roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108.

Exceptions:

- a. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.
- b. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile, or slate installed on noncombustible decks.
- c. Class A roof assemblies include minimum 16 oz/ft² copper sheets installed over combustible decks.

- W. Section R902.1.3 is amended by revising it to require a minimum Class B roof as follows:

R902.1.3 Roof coverings within all other areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B.

- X. Section R902.2, first paragraph is amended by revising it to allow only Class A or B treated wood roofs as follows:

R902.2 Fire-retardant-treated shingles and shakes. Fire-retardant-treated wood shakes and shingles are wood shakes and shingles complying with UBC Standard 15-3 or 15-4 which are impregnated by the full-cell vacuum-pressure process with fire-retardant chemicals, and which have been qualified by UBC Standard 15-2 for use on Class A or B roofs.

- Y. 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

- Z. 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.

- AA. Section R1001.13.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas is hereby added as follows:

R1001.13.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas. Fireplaces burning wood or other solid fuel shall be constructed in accordance with Section R1001. Fires in a fireplace shall be contained within a firebox with an attached chimney. The opening in the face of the firebox shall have an installed and maintained method of arresting sparks. The burning of wood or other solid fuel in a device is not allowed within 15 feet of combustible structures, unless within a permanent or portable fireplace.

- BB. Section R1001.13.3 Devices using wood or fuels other than natural gas or liquefied-petroleum gas is hereby added as follows:

R1001.13.3 Where prohibited. The burning of wood and other solid fuels shall not be conducted within a fuel modification zone. Wood and other solid fuel burning fires in devices other than permanent fireplaces are not allowed within Wildfire Risk Areas (WRA) and adopted Fire Hazard Severity Zones (FHSZ) or in locations where conditions could cause the spread of fire to the WRA or FHSZ, unless determined by the Fire Code Official that the location or design of the device should reasonably prevent the start of a wildfire.

8.06.040 California Residential Code Chapter 44 Referenced Standards amended.

- A. Chapter 44 Referenced Standards is adopted in its entirety and revised as follows:

NFPA 13, 2016 Edition, Installation of Sprinkler Systems is hereby amended as follows:

Section 6.7.3 is hereby revised as follows:

6.7.3 Fire department connections (FDC) shall be of an approved type. The FDC shall contain a minimum of two 2 ½" inlets. 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 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. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided.

B. Section 8.3.3.1 is hereby revised 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 3.6.4.7
- 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

C. Section 8.17.1.1.1 is hereby added as follows

8.17.1.1.1 Residential Waterflow Alarms. A local water-flow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system, where provided. Group R occupancies not requiring a fire alarm system by the California Fire Code shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be minimum of 15 DBA above the average ambient sound or a minimum of 75 DBA with all intervening doors closed, whichever is greater. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for over-current protection)

serving normally operated appliances in the residence.

D. Section 11.1.1.2 is hereby added as follows:

11.1.1.2 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 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 occupancy.

E. 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 Orange County Fire Authority 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.

F. NFPA 13R 2016 Edition, Installation of Sprinkler System in Residential Occupancies up to and Including Four Stories in Height is hereby amended as follows:

Section 6.16.1 is hereby revised as follows:

6.16.1 A local water-flow alarms shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies containing less than the number of stories, dwelling units or occupant load specified in Section 907.2.8 of the 2013 California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be a minimum of 15 dBA above the average ambient sound or a minimum of 75 dBA with all intervening doors closed, whichever is greater. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to

a fire alarm or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

There shall also be a minimum of one exterior alarm indicating device, listed for outside service and audible from the access roadway that serves that building.

- G. 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 as follows:

7.1.2 The system piping shall not have a separate control valve unless supervised by a central station, or remote station alarm service.

8.06.050 Appendix O Vehicular Gates

Appendix O Vehicular Gates is hereby adopted with only the section indicated below:

SECTION AO103.3 Vehicular gates or other barriers across required fire apparatus access roads is added as follows:

AO103.3 Vehicular gates or other barriers across required fire apparatus access roads. The installation of gates or other barriers across a required fire apparatus access road shall comply with the requirements set forth in the 2019 California Fire Code Section 503.6.”

SECTION 4. Chapter 8.14 of the Lake Forest Municipal Code is hereby amended and restated in its entirety to read as follows:

“Chapter 8.14 California Electrical Code

8.14.001 Adoption of California Electrical Code.

California Electrical Code, 2019 Edition, based on the 2017 National Electrical Code as published by the National Fire Protection Association, including Article 89, together with the amendments provided in this chapter, is hereby adopted by reference as the Electrical Code of the City of Lake Forest, regulating all installation, arrangement, alteration, repair, use and other operation of electrical wiring, connections, fixtures and other electrical appliances on premises within the

City, of which code not less than one (1) copy has been made and is now filed in the office of the City Clerk; and the same is adopted and incorporated as fully as is set forth at length herein.

8.14.010 California Electrical Code amended.

- A. Section 89.108.5.2 is hereby added to the California Electrical Code to read as follows:

89.108.5.2 Enforcement.

This Code is intended to be suitable for mandatory application by the City of Lake Forest over electrical installations within incorporated territory of the City. The Building Official of the City of Lake Forest shall have the authority for enforcement of the Code and the responsibility for making interpretations of the rules, for deciding upon the approval of equipment, materials and wiring methods as set forth in the California Electrical Code, and for the granting the special permission contemplated in a number of the rules.

The Building Official may waive specific requirements in this Code or permit alternate methods, where it is assured that equivalent objectives can be achieved by establishing and maintaining effective safety.

This Code may require new products, constructions, or materials which may not yet be available at the time the Code is adopted. In such event, the Authority Having Jurisdiction may permit the use of the products, constructions, or materials which comply with the most recent previous edition of this Code adopted by the jurisdiction.

- B. Section 89.108.4.2 of the California Electrical Code is amended to read as follows:

89.108.4.2 Fees.

- (a) Fees shall be established by resolution of the City Council.
- (b) The fees required in this section must be paid to the Building Official for each electrical installation for which a permit is required by this Code.
- (c) No permit shall be issued to any person, firm or corporation unless all fees for permits or additions to permits are paid in full. When an electrical plan is required to be submitted, a plan check fee shall be paid at the time of submittal.

- (d) Failure to take out a permit and to pay fees before commencing work shall be deemed evidence of violation of the provisions of this Code. Double the amount of permit fees shall be assessed for work commenced before a permit is issued.
- (e) Whenever any work for which a permit is required under the provisions of this Code has been commenced without the authorization of such permit, a special investigation may be required before a permit will be issued for such work. In addition to the regular permit fee and any penalty fee, the said special investigation fee which may be collected shall be established by resolution of the City Council.
- (f) Fees for annual permits shall be paid at the time such permits are issued. In addition, fees for all new work installed under such permit since the date of the previous inspection shall be paid, in accordance with the fee schedule, at the time the annual permit is issued.
- (g) Fees for additional inspections.
 - (1) Each permit shall be entitled to one (1) reinspection without additional charge, in addition to the required number of inspections established by the Building Official. On jobs which may be completely inspected on one (1) inspection trip, two (2) inspection trips will be allowed without additional charge for said second trip.
Exception: The number of inspection trips will not be limited on progress jobs; provided, however, that only one (1) inspection will be permitted for checking a correction. For the purpose of this section, progress jobs are those where circumstances beyond the control of the installer make it impossible for the electrical work to be completed at any specific time.
 - (2) If more inspection trips than specified in paragraph (g)(1) above are required due to the fault or error on the part of the installer or his employees, an additional fee as established by resolution by the City Council may be required of the installer for each additional inspection trip.
- (h) Refunds.
 - (1) The Building Official shall collect such fees as are provided to be paid by this Code. He shall make no refunds on fees collected amounting to less than thirty dollars (\$30.00), or on any plan checking fee or on any permit fee where one (1) year has elapsed from the date of issuance.

- (2) Refunds may be made to the permittee in the amount equal to eighty (80) percent of the permit fee paid where work authorized by said permit has not commenced.
 - (3) Refunds may be made in an amount equal to one hundred (100) percent of the amount paid for each permit when a permit has been inadvertently issued outside the jurisdiction of the City or duplicate permits have been issued and two (2) fees have been collected for the same work.
- C. Section 89.108.11 is hereby added to the California Electrical Code to read as follows:

89.108.11 Penalties. Any person, firm or corporation violating any of the provisions of this Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Code is committed, continued or permitted; and upon conviction of any such violation such person shall be punished by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment."

SECTION 5. Chapter 8.16 of the Lake Forest Municipal Code is hereby amended and restated in its entirety to read as follows:

"Chapter 8.16 California Plumbing Code

8.16.001 Adoption of California Plumbing Code.

California Plumbing Code, 2019 Edition, based on the 2018 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials, including Chapter 1, together with the amendments provided in this chapter, is hereby adopted by reference as the Plumbing Code of the City of Lake Forest, regulating erection, installation, alteration, repair, relocation, replacement, maintenance or use of plumbing systems within the City, of which code not less than one (1) copy has been made and is now filed in the office of the City Clerk; and the same is adopted and incorporated as fully as is set forth at length herein.

Whenever the term "Authority Having Jurisdiction" is used in this Code, it shall mean the Building Official of the City.

Whenever the terms "Building Official" and "assistants" are used in this Code, they shall be construed to mean the Development Services Director for the City of Lake Forest or her designated representative.

8.16.010 California Plumbing Code amended.

- A. Section 106.3 of Chapter 1 of the Plumbing Code is hereby amended to read as follows:

Section 106.3 Violation and Penalties.

Any person, firm or corporation violating any of the provisions of this Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Code is committed, continued or permitted; and upon conviction of any such violation such person shall be punished by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment.

- B. Section 104.5 of Chapter 1 of the Plumbing Code is hereby amended to read as follows:

Section 104.5 Fees

104.5 Fees. Fees shall be assessed in accordance with the provisions of this section and as set forth by Resolution of the City Council.

Failure to pay fees and obtain a permit before commencing work shall be deemed a violation of this Code, except when it can be proven to the satisfaction of the Building Official that an emergency existed which made it impractical to first obtain the permit. A violation shall result in an assessment of double permit fees for work done prior to permit issuance. Payment of a double fee shall not relieve any person from fully complying with the requirements of this Code nor from any other penalties prescribed herein.

For the purpose of this section, a sanitary plumbing outlet on or to which a plumbing fixture or appliance may be set or attached shall be construed to be a fixture. Fees for reconnection and retest of existing plumbing systems in relocated buildings shall be based on the number of plumbing fixtures, gas systems, water heaters, or other appliances involved.

When a permit has been obtained to connect an existing building or existing work to the public sewer or to a new private disposal facility, backfilling of private sewage disposal facilities abandoned consequent to such connection is included in the building sewer permit.

C. Section 104.5.3 of Chapter 1 of the Plumbing Code is hereby amended to read as follows:

Section 104.5.3 Fee Refund.

104.5.3.1 Refunds. Permit fee refunds will be made in an amount equal to eighty (80) percent where work authorized by said permit has not commenced; except that no refund will be made for less than thirty dollars (\$30.00), and no refund will be made if one (1) year has elapsed from the date of permit issuance.

104.5.3.2 Plan check fee refunds will be made in an amount equal to eighty (80) percent if the request for such refund is received before the commencement of the first complete plan check; except that no refund will be made for less than thirty dollars (\$30.00), and no refund will be made if one (1) year has elapsed from the date of plan check fee payment.

104.5.3.3 Permit and plan check fees will be refunded in their entirety when inadvertently paid for a project outside the jurisdiction of the City or as duplicate fees, except that no refund will be made if one (1) year has elapsed from the date of payment."

SECTION 6. Chapter 8.20 of the Lake Forest Municipal Code is hereby amended and restated in its entirety to read as follows:

"Chapter 8.20 California Mechanical Code

8.20.001 Adoption of California Mechanical Code.

California Mechanical Code, 2019 Edition, based on the 2018 Uniform Mechanical Code as published by the International Association Plumbing and Mechanical Officials, including Chapter 1, together with the amendments provided in this chapter, is hereby adopted by reference as the Mechanical Code of the City of Lake Forest, 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, of which Code not less than one (1) copy has been made and is now filed in the office of the Clerk of the City; and the same is adopted and incorporated by reference as if set forth at length herein.

8.20.010 California Mechanical Code amended.

A. Section 104.5, Permit Fees, of the Mechanical Code, is hereby amended to read as follows:

104.5 Permit fees. A fee as established by Resolution of the City Council shall be paid for each permit at the time of issuance. Failure to pay fees and obtain a permit before commencing work shall be deemed a violation of this Code except when it can be proven to the satisfaction of the Building Official that an emergency existed which made it impractical to first obtain the permit. A violation shall result in an assessment of double permit fees for work done prior to permit issuance. Payment of a double fee shall not relieve any person from fully complying with the requirements of this Code nor from any other penalties prescribed herein.

- B. Section 104.3.3, Time Limitation of Application, of the Mechanical Code, is hereby amended to read as follows:

104.3.3 Expiration of plan review. Any application for a permit for any proposed work shall be deemed to have been abandoned within one calendar year following the date of application, unless a permit is issued, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. No extensions shall be allowed. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay the required fees.

- C. Section 104.5.3, Fee Refunds, of the Mechanical Code, is hereby amended to read as follows:

104.5.3 Fee Refunds.

104.5.3.1 Permit fee refunds will be made in an amount equal to eighty (80) percent where work authorized by said permit has not commenced, except that no refund will be made for less than thirty dollars (\$30.00), and no refund will be made if one (1) year has elapsed from the date of permit issuance.

104.5.3.2 Plan check fee refunds will be made in an amount equal to eighty (80) percent if the request for such refund is received before the commencement of the first complete plan check, except that no refund will be made for less than thirty dollars (\$30.00), and no refund will be made if one (1) year has elapsed from the date of plan check fee payment.

104.5.3.3 Permit and plan check fees will be refunded in their entirety when inadvertently paid for a project outside the jurisdiction of the City of Lake Forest or as duplicate fees, except that no refund will be made if one (1) year has elapsed from the date of payment."

SECTION 7. Chapter 8.24 of the Lake Forest Municipal Code is hereby amended and restated in its entirety to read as follows:

“Chapter 8.24 California Fire Code

8.24.010. Adoption of California Fire Code.

Except as hereinafter provided, the 2019 California Fire Code, based on the International Fire Code, 2018 Edition, with errata, published by the International Code Council (ICC), with appendices and amendments thereto, including Chapter 1, are hereby adopted by the City of Lake Forest for the purpose of prescribing regulations governing conditions hazardous to the life and property from fire or explosion, save and except such portions as are hereinafter added, deleted, modified or amended. One copy of all the above is now on file in the office of the Clerk for public inspection and is adopted with the same force and effect as through set out herein in full.

8.24.020. California Fire Code amended.

The California Fire Code adopted herein by reference is hereby modified by the following additions, amendments and deletions:

1. **Chapter 1 General Requirements.** Adopt Chapter 1 in its entirety, with the exception of Section 109, and with the following amendments:
2. **Section 110.4 Violation penalties** is hereby revised as follows:

110.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or shall fail to comply with any issued orders or notices or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be subject to penalties assessed as prescribed in the OCFA Prevention Field Services adopted fee schedule. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

3. **Section 110.4.2 Infraction and misdemeanor** is hereby added as follows:

110.4.2 Infraction and misdemeanor. Persons operating or maintaining any occupancy, premises or vehicle subject to this code that shall permit any fire or life safety hazard to exist on premises under their control shall be guilty of an infraction. Persons who fail to take immediate action to abate a

fire or life safety hazard when ordered or notified to do so by the chief or a duly authorized representative are guilty of a misdemeanor.

4. **Chapter 2 Definitions** is adopted in its entirety with the following amendments:
5. **Sections 202 General Definitions** is hereby revised by adding "OCFA" and "Spark Arrester" as follows:

202 General Definitions

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:

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.
6. **Chapter 3 General Requirements.** Adopt Chapter 3 in its entirety, with the exception of Sections 308.1.4, 311.5 through 311.5.5, 318, and 319, and with the following amendments:
7. **Section 304.1.2 Vegetation** is hereby revised as follows:

304.1.2 Vegetation. Weeds, grass, vines or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises. Vegetation clearance requirement in urban-wildland interface areas shall be in accordance with Chapter 49. Type, amount, arrangement, and maintenance of vegetation in a fuel modification area, interior slope, or similarly hazardous area shall be in accordance with OCFA Guideline C-05 "Vegetation Management Guideline—Technical Design for New Construction, Fuel Modification Plans, and Maintenance Program."

8. **Section 305.6 Hazardous Conditions** is hereby added as follows:

305.6 Hazardous conditions. Outdoor fires burning wood or other solid fuel are not allowed when any of the following conditions applies:

1. when predicted sustained winds exceed 8 MPH and relative humidity is less than 25%, or a red flag condition has been declared
2. when an official sign was caused to be posted by the fire code official, or a public announcement is made

No outdoor fires using any fuel type are permitted when predicted sustained winds exceed 20 MPH or when such fires present a hazard as determined by the fire code official.

9. **Section 305.7 Disposal of rubbish** is hereby added as follows:

305.7 Disposal of rubbish. Rubbish, trash or combustible waste material shall be burned only within an approved incinerator and in accordance with Section 307.2.1.

10. **Section 307 OPEN BURNING, RECREATIONAL FIRES AND PORTABLE OUTDOOR FIREPLACES** is hereby revised as follows:

SECTION 307 OPEN BURNING, RECREATIONAL FIRES, FIRE PITS, FIRE RINGS, AND PORTABLE OUTDOOR FIREPLACES

11. **Sections 307.6 Outdoor Fireplaces, Fire Pits, Fire Rings, or similar devices used at Group R Occupancies** is hereby added as follows:

307.6 Outdoor Fireplaces, Fire Pits, Fire Rings, or similar devices used at Group R Occupancies. Outdoor fireplaces, fire pits, fire rings, or similar exterior devices used at Group R occupancies shall comply with this section.

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

12. **Section 307.6.1 Gas-fueled devices** is hereby added as follows:

307.6.1 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 and vegetation shall not be located within three feet of an atmospheric column that extends vertically from the perimeter of the device. At other R occupancies, the minimum distance shall be ten feet. 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 as defined in Section 202.

13. **Section 307.6.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas** is hereby added as follows:

307.6.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas. Permanent outdoor fireplaces burning wood or other solid fuel shall be constructed in accordance with the California Building Code with clearance from combustible construction and building openings as required therein. Fires in a fireplace shall be contained within a firebox with an attached chimney. The opening in the face of the firebox shall have an installed and maintained method of arresting sparks.

The burning of wood or other solid fuel in a device is not allowed within 25 feet of combustible structures unless within an approved permanent fireplace. Conditions which could cause a fire to spread within 25 feet of a structure or to vegetation shall be eliminated prior to ignition. Fires in devices burning wood or solid fuel shall be in accordance with Sections 305, 307, and 308.

Exceptions:

1. Portable fireplaces and fire rings/pits equipped with a device to arrest sparks shall be located at least 3' from combustible construction at R-3 occupancies,
2. Portable fireplaces, and fire pits/rings equipped with a device to arrest sparks, shall be located at least 15 feet from combustible structures at other R occupancies.

14. **Section 307.6.2.1 Where prohibited** is hereby added as follows:

307.6.2.1 Where prohibited. The burning of wood and other solid fuels shall not be conducted within a fuel modification zone, Wildfire Risk Area (WRA), Wildland-Urban Interface Area (WUI), or in locations where conditions could cause the spread of fire to the WRA or WUI.

Exceptions:

1. Permanent fireplaces that are not located in a fuel modification zone
2. Where determined by the Fire Code Official that the location or design of the device should reasonably prevent the start of a wildfire.

15. **Section 308.1.6.3 Sky lanterns** is hereby revised as follows:

308.1.6.3 Sky lanterns. A person shall not ignite, release, or cause to be released a sky lantern.

16. **Section 321 Fuel Modification Requirements for New Construction** is hereby added as follows:

321 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."

17. **Section 322 Clearance of brush or vegetation growth from roadways** is hereby added as follows:

322 Clearance of brush or vegetation growth from roadways. The fire code official is authorized to cause areas within 10 feet (3048 mm) on each side of portions of highways and private streets which are improved, designed or ordinarily used for vehicular traffic, to be cleared of flammable vegetation and other combustible growth. Measurement shall be from the flow-line or the end of the improved edge of the roadway surfaces.

Exception: Single specimens of trees, ornamental shrubbery or cultivated ground cover such as green grass, ivy, succulents or similar plants used as ground covers, provided that they do not form a means of readily transmitting fire.

18. **Section 323 Unusual Circumstances** is hereby added as follows:

323 Unusual circumstances. The fire code official may suspend enforcement of the vegetation management requirements and require reasonable alternative measures designed to advance the purpose of this code if determined that in any specific case that any of the following conditions exist:

1. Difficult terrain.
2. Danger of erosion.
3. Presence of plants included in any state and federal resources agencies, California Native Plant Society and county-approved list of wildlife, plants, rare, endangered and/or threatened species.

4. Stands or groves of trees or heritage trees.
5. Other unusual circumstances that make strict compliance with the clearance of vegetation provisions undesirable or impractical.

19. **Section 324 Use of Equipment** is hereby added as follows:

324 Use of equipment. Except as otherwise provided in this section, no person shall use, operate, or cause to be operated in, upon or adjoining any hazardous fire area any internal combustion engine which uses hydrocarbon fuels, unless the engine is equipped with a spark arrester as defined in Section 202 maintained in effective working order, or the engine is constructed, equipped and maintained for the prevention of fire.

Exceptions:

1. Engines used to provide motor power for trucks, truck tractors, buses, and passenger vehicles, except motorcycles, are not subject to this section if the exhaust system is equipped with a muffler as defined in the Vehicle Code of the State of California.
2. Turbocharged engines are not subject to this section if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in good mechanical condition

20. **Section 324.1 Use of Equipment and Devices Generating Heat, Sparks or Open Flames** is hereby added as follows:

324.1 Equipment and devices generating heat, sparks or open flames. During any time of the year within Wildfire Risk Areas, within or immediately adjacent to any forest- or brush-covered land or non-irrigated grass-covered land, no person shall use or operate any welding equipment, cutting torches, tar pots, grinding devices, or other tools or equipment that may produce a spark, fire, or flame that could result in a wildfire without doing the following:

1. First clearing away all flammable material, including snags, from the area around such operation for a distance of 30 feet or other approved method to reduce fire spread into the wildlands. If 30-foot clearing cannot be achieved, then an alternate method shall be approved by the AHJ prior to work starting.
2. Maintain one serviceable round point shovel with an overall length of not less than forty-six (46) inches and one backpack pump water-type

fire extinguisher fully equipped and ready for use at the immediate area during the operation.

3. Stop work when winds are 8 MPH or greater during periods when relative humidity is less than 25%, or a red flag condition has been declared or public announcement is made, when an official sign was caused to be posted by the fire code official, or when such fires present a hazard as determined by the fire code official.
4. Keep a cell phone nearby and call 911 immediate in case of fire.

21. **Section 324.2 Spark Arresters** is hereby added as follows:

324.2 Spark arresters. Spark arresters shall comply with Section 202, and when affixed to the exhaust system of engines or vehicles subject to Section 324 shall not be placed or mounted in such a manner as to allow flames or heat from the exhaust system to ignite any flammable material.

22. **Chapter 4: Emergency Planning and Preparedness.** Adopt only the sections, subsections, and amendment listed below:

401 – 401.9
402
403.2
403.5 – 403.5.4
403.10.2.1.1
403.13 – 403.13.3
404.5 – 404.6.6
407

23. **Section 407.5** is revised as follows:

407.5 Hazardous Materials Inventory Statement. Where required by the fire code official, each application for a permit shall OCFA's Chemical Classification Packet in accordance with Section 5001.5.2.

24. **Chapter 5 Fire Service Features** is adopted in its entirety with the following amendments:

25. **SECTION 501.1 Scope** is revised as follows:

501.1 Scope. Fire service features for buildings, structures and premises shall comply with this chapter and, where required by the fire code official, with OCFA Guideline B-09, "Fire Master Plan for Commercial & Residential

Development.” Fire service features for buildings, structures and premises located in State Responsibility Areas shall also comply with OCFA Guideline B-09a, “Fire Safe Development in State Responsibility Areas, and Local Responsibility Areas designated as Very High Hazard Fire Severity Zone ”

26. **Section 510.1 Emergency responder radio coverage** in new buildings is revised as follows:

510.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems utilized by the jurisdiction, measured at the exterior of the building. This section shall not require improvement of the existing public safety communication systems. The Emergency Responder Radio Coverage System shall comply with the Orange County Sheriff’s Department, Communications and Technology Division guidelines and specifications and, where the functionality or performance requirements in the California Fire Code are more stringent, this code.

Exceptions:

1. In buildings or structures where it is determined by the fire code official that the radio coverage system is not needed, including but not limited to the following:
 - a. Existing buildings or structures, unless required by the Building Official and OCFA for buildings and structures undergoing extensive remodel and/or expansion.
 - b. Elevators.
 - c. Structures that meet all of the following:
 - i. Three stories or less, and
 - ii. Do not have subterranean storage or parking, and
 - iii. Do not exceed 50,000 square feet on any single story.
 - d. Structures that meet all of the following:
 - i. Residential structures four stories or less, and
 - ii. Constructed of wood, and
 - iii. Do not have subterranean storage or parking, and
 - iv. Are not built integral to an above ground multi-story parking structure.

Should a structure that is three stories or less and 50,000 square feet or smaller on any single story include subterranean storage or parking, then this ordinance shall apply only to the subterranean areas.

2. In facilities where emergency responder radio coverage is required and such systems, components or equipment required could have a

negative impact on the normal operations of the facility, the fire code official shall have the authority to accept an automatically activated emergency radio coverage system.

27. **Section 510.2 Emergency responder radio coverage in existing buildings** is deleted without replacement:
28. **Section 510.3 Permit required** is deleted without replacement.
29. **Chapter 6 Building Services and Systems** is adopted in its entirety without amendments:
30. **Chapter 7 Fire and Smoke Protection Features** is adopted in its entirety without amendments.
31. **Chapter 8 Interior Finish, Decorative Materials and Furnishings** is adopted in its entirety without amendments.
32. **Adopt Chapter 9 Fire Protection and Life Safety Systems** is adopted in its entirety with the following amendments:
33. **Section 903.2 Where required** is hereby revised as follows:

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

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, as defined in Section 202, exceeds 5,000 square-feet (465 square-meters), or more than two stories in height, regardless of fire areas or allowable area.

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

Group R-3 occupancies. Group R-3 occupancies shall comply with Section 903.2.8.

34. **Section 903.2.8 Group R** is hereby revised 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 Buildings:** An automatic sprinkler system shall be installed throughout any existing building when the floor area of the Alteration within any two year period exceeds 50% of area of the existing structure and the building area exceeds 5,500 square-feet. When the cost of installing an approved automatic sprinkler system exceeds 5% of the cost of the Alteration, with the approval of the fire code official, the required automatic sprinkler system may be omitted.

Exceptions:

1. Existing Group R-3 occupancies converted to Group R-3.1 occupancies and not housing bedridden clients, not housing non-ambulatory 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.

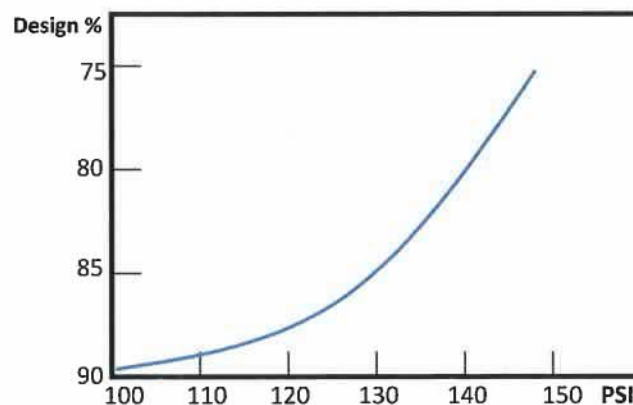
An automatic sprinkler system designed in accordance with Section 903.3.1.3 shall not be utilized in Group R-2.1 or R-4 occupancies.

35. **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



36. **Chapter 10 Means of Egress** is adopted in its entirety without amendments.

37. **Chapter 11 Construction Requirements for Existing Buildings.** Adopt only those sections and subsections listed below:

1103.7
1103.7.3
1103.7.3.1
1103.7.8 – 1103.7.8.2
1103.7.9 – 1103.7.9.10
1103.8 – 1103.8.5.3
1103.9.1
1107
1113
1114
1115
1116

38. **Chapter 12 Energy Systems** is adopted in its entirety with the following amendment added:

1201.1.1 Other Systems Where required by the fire code official, other systems and operations including but not limited to battery systems assembly, battery reconditioning and storage, research and development of battery storage systems, electric vehicle manufacturing and testing, and battery charging systems for cars and carts inside of buildings or structures, shall comply with this chapter.

Exception: When approved by the fire code official, charging stations for electric vehicles located in open parking garages of Type I or II construction.

39. **Chapter 20 Aviation Facilities, Chapter 21 Dry Cleaning, Chapter 22 Combustible Dust-Producing Operations, Chapter 23 Motor Fuel-Dispensing Facilities and Repair Garages, and Chapter 24 Flammable Finishes** are adopted in its entirety without amendments.
40. **Chapter 25 Fruit and Crop Ripening and Chapter 26 Fumigation and Insecticidal Fogging** are deleted in its entirety.
41. **Chapter 27 Semiconductor Fabrication Facilities** is adopted in its entirety without amendments
42. **Chapter 28 Lumber Yards and Agro-Industrial, Solid Biomass and Woodworking Facilities** is adopted in its entirety with the following amendments:
43. **Section 2801.2 Permit** is hereby revised as follows:
- 2801.2 Permit.** Permits shall be required as set forth in Section 105.6 and 105.6.29.
44. **Section 2808.2 Storage site** is hereby revised as follows:
- 2808.2 Storage site.** Storage sites shall be level and on solid ground, elevated soil lifts or other all-weather surface. Sites shall be thoroughly cleaned and approval obtained from the fire code official before transferring-products to the site.
45. **Section 2808.3 Size of piles** is hereby revised as follows:

2808.3 Size of piles. Piles shall not exceed 15 feet in height, 50 feet in width and 100 feet in length.

Exception: The fire code official is authorized to allow the pile size to be increased where a fire protection plan is provided for approval that includes, but is not limited to, the following:

1. Storage yard areas and materials-handling equipment selection, design and arrangement shall be based upon sound fire prevention and protection principles.
2. Factor that lead to spontaneous heating shall be identified in the plan, and control of the various factors shall be identified and implemented, including provisions for monitoring the internal condition of the pile.
3. The plan shall include means for early fire detection and reporting to the public fire department; and facilities needed by the fire department for fire extinguishment including a water supply and fire hydrants.
4. Fire apparatus access roads around the piles and access roads to the top of the piles shall be established, identified and maintained.
5. Regular yard inspections by trained personnel shall be included as part of an effective fire prevention maintenance program.

Additional fire protection called for in the plan shall be provided and shall be installed in accordance with this code. The increase of the pile size shall be based upon the capabilities of the installed fire protection system and features.

46. **Section 2808.4 Pile Separation** is hereby revised as follows:

2808.4. Pile separation. Piles shall be separated from adjacent piles by minimum distance of 20 feet. Additionally, piles shall have a minimum separation of 100 feet from combustible vegetation.

47. **Section 2808.7 Pile fire protection** is hereby revised as follows:

2808.7 Pile fire protection. Automatic sprinkler protection shall be provided in conveyor tunnels and combustible enclosures that pass under a pile. Combustible conveyor systems and enclosed conveyor systems shall be equipped with an approved automatic sprinkler system. Oscillating sprinklers with a sufficient projectile reach are required to maintain a 40% to 60% moisture content and wet down burning/smoldering areas.

48. **Section 2808.9 Material-handling equipment** is hereby revised as follows:

2808.9 Material-handling equipment. All material-handling equipment operated by an internal combustion engine shall be provided and maintained with an approved spark arrester. Approved material-handling equipment shall be available for moving wood chips, hogged material, wood fines and raw product during fire-fighting operations.

49. **Section 2808.11 Temperature control** is hereby added as follows:

2808.11 Temperature control. The temperature shall be monitored and maintained as specified in Sections 2808.11.1 and 2808.11.2.

50. **Section 2808.11.1 Pile temperature control** is hereby added as follows:

2808.11.1 Pile temperature control. Piles shall be rotated when internal temperature readings are in excess of 165 degrees Fahrenheit.

51. **Section 2808.11.2 New material temperature control** is hereby added as follows:

2808.11.2 New material temperature control. New loads delivered to the facility shall be inspected and tested at the facility entry prior to taking delivery. Material with temperature exceeding 165 degrees Fahrenheit shall not be accepted on the site. New loads shall comply with the requirements of this chapter and be monitored to verify that the temperature remains stable.

52. **Section 2808.12 Water availability** is hereby added as follows:

2808.12 Water Availability. Facilities with over 2500 cubic feet shall provide a water supply. The minimum fire flow shall be no less than 500 GPM @ 20 psi for a minimum of 1 hour duration for pile heights up to 6 feet and 2 hour duration for pile heights over 6 feet. If there is no water purveyor, an alternate water supply with storage tank(s) shall be provided for fire suppression. The water supply tank(s) shall provide a minimum capacity of 2500 gallons per pile (maximum 30,000 gallons) for piles not exceeding 6 feet in height and 5000 gallons per pile (maximum 60,000) for piles exceeding 6 feet in height. Water tank(s) shall not be used for any other purpose unless the required fire flow is left in reserve within the tank at all times. An approved method shall be provided to maintain the required amount of water within the tank(s).

53. **Section 2808.13 Tipping area** is hereby added as follows:

2808.13 Tipping areas shall comply with the following:

1. Tipping areas shall not exceed a maximum area of 50 feet by 50 feet.
2. Material within a tipping area shall not exceed 5 feet in height at any time.
3. Tipping areas shall be separated from all piles by a 20 foot wide fire access lane.
4. A fire hydrant or approved fire water supply outlet shall be located within 150 feet of all points along the perimeter of the tipping area.
5. All material within a tipping area shall be processed within 5 days of receipt.

54. **Section 2808.14 Emergency Contact** is hereby added as follows:

2808.14 Emergency Contact. The contact information of a responsible person or persons shall be provided to the Fire Department and shall be posted at the entrance to the facility for responding units. The responsible party should be available to respond to the business in emergency situation.

55. **Chapter 29 Manufacture of Organic Coatings, Chapter 30 Industrial Ovens, Chapter 31 Temporary Special Event Structures and Other Membrane Structures, Chapter 32 High-Piled Combustible Storage, Chapter 33 Fire Safety During Construction and Demolition, Chapter 34 Tire Rebuilding and Tire Storage, Chapter 35 Welding and Other Hot Work, Chapter 36 Marinas, Chapter 37 Combustible Fibers, Chapter 39 Processing and Extraction Facilities, Chapter 48 Motion Picture and Television Production Studio Sound Stages, Approved Production Facilities and Production Locations** are adopted in its entirety without amendments.

56. **Chapter 49 Requirements for Wildland-Urban Interface Fire Areas** is adopted in its entirety with the following amendments:

57. **Section 4906.3 Requirements** is hereby revised as follows:

4906.3 Requirements. Hazardous vegetation and fuels around all applicable buildings and structure shall be maintained in accordance with the following laws and regulations:

1. Public Resources Code, Section 4291.

2. California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3, Section 1299 (see guidance for implementation "General Guideline to Create Defensible Space").
3. California Government Code, Section 51182.
4. California Code of Regulations, Title 19, Division 1, Chapter 7, Subchapter 1, Section 3.07.
5. OCFA Guideline C-05 "Vegetation Management Guideline – Technical Design for New Construction Fuel Modification Plans and Maintenance Program."

58. **Section 4908 Fuel Modification Requirements for New Construction** is hereby added as follows:

4908 Fuel Modification Requirements for New Construction. All new buildings to be built or installed in a Wildfire Risk Area shall comply with the following:

1. Preliminary fuel modification plans shall be submitted to and approved by the fire code official prior to or concurrently with the approval of any tentative map.
2. Final fuel modification plans shall be submitted to and approved by the fire code official prior to the issuance of a grading permit.
3. The fuel modification plans shall meet the criteria set forth in the Fuel Modification Section of OCFA Guideline C-05 "Vegetation Management Guideline – Technical Design for New Construction Fuel Modification Plans and Maintenance Program."
 - 1.1 The fuel modification plan shall include provisions for the maintenance of the fuel modification in perpetuity.
4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approval from the fire code official.
5. All elements of the fuel modification plan shall be maintained in accordance with the approved plan and are subject to the enforcement process outlined in the Fire Code.

59. **Chapter 50 Hazardous Materials – General Provisions** is adopted in its entirety with the following amendments.

60. **Section 5001.5.2 Hazardous Materials Inventory Statement (HMIS)**, is hereby revised as follows:

5001.5.2 Hazardous Materials Inventory Statement (HMIS). Where required by the fire code official, an application for a permit shall include. Orange County Fire Authority's-Chemical Classification Packet, which shall be completed and approved prior to approval of plans, and/or the storage, use or handling of chemicals on the premises. The Chemical Classification Packet shall include the following information:

1. Product Name.
2. Component.
3. Chemical Abstract Service (CAS) number.
4. Location where stored or used.
5. Container size.
6. Hazard classification.
7. Amount in storage.
8. Amount in use-closed systems.
9. Amount in use-open systems.

61. **Section 5003.1.1.1 Extremely Hazardous Substances** is hereby added as follows:

5003.1.1.1 Extremely Hazardous Substances. No person shall use or store any amount of extremely hazardous substances (EHS) in excess of the disclosable amounts (see Health and Safety Code Section 25500 et al) in a residential zoned or any residentially developed property.

62. **Chapter 51 Aerosols, Chapter 53 Compressed Gases, Chapter 54 Corrosive Materials, and Chapter 55 Cryogenic Fluids** are adopted in its entirety without amendments.

63. **Chapter 56 Explosives and Fireworks** is adopted in its entirety with the following amendments:

64. **Section 5608.2 Firing** is hereby added as follows:

5608.2 Firing. All fireworks displays, regardless of mortar, device, or shell size, shall be electrically fired.

65. **Section 5608.3 Application for Permit** is hereby added as follows:

Section 5608.3 Application for Permit. A diagram of the grounds on which the display is to be held showing the point at which the fireworks are

to be discharged, the fallout area based on 100 feet per inch of shell size, the location of all buildings, roads, and other means of transportation, the lines behind which the audience will be restrained, the location of all nearby trees, telegraph or telephone line, or other overhead obstructions shall be provided to OCFA.

66. **Chapter 57 Flammable and Combustible Liquids.** Adopt Chapter 57, with the exception of Section 5707, in its entirety and with the following amendment:

67. **Section 5701.1.1 On-Demand Mobile fueling** is added as follows:

Section 5701.1.1 Mobile fueling. On-demand mobile fueling of Class I, II, and III liquids into the fuel tanks of vehicles is prohibited.

68. **Chapter 58 Flammable Gases and Flammable Cryogenic Fluids.** Adopt Chapter 58, with the exception of Section 5809, in its entirety and with the following amendment:

69. **Section 5801.1 Scope** is revised as follows:

Section 5801.1 Scope. The storage and use of flammable gases and flammable cryogenic fluids shall be in accordance with this chapter, NFPA 2 and NFPA 55. Compressed gases shall also comply with Chapter 53 and cryogenic fluids shall also comply with Chapter 55. Flammable cryogenic fluids shall comply with Section 5806. Hydrogen motor fuel-dispensing stations and repair garages and their associated above-ground hydrogen storage systems shall also be designed, constructed and maintained in accordance with Chapter 23. Mobile fueling of gaseous and liquid hydrogen, compressed natural gas (CNG), and liquefied natural gas (LNG) into the fuel tanks of vehicles is prohibited.

Exceptions:

1. Gases used as refrigerants in refrigeration systems (see Section 605).
2. Liquefied petroleum gases and natural gases regulated by Chapter 61.
3. Fuel-gas systems and appliances regulated under the California Mechanical Code and the California Plumbing Code other than gaseous hydrogen systems and appliances.
4. Pyrophoric gases in accordance with Chapter 64.

70. **Chapter 59 Flammable Solids, Chapter 60 Highly Toxic and Toxic Materials, Chapter 61 Liquefied Petroleum Gases, Chapter 62 Organic Peroxides, Chapter 63 Oxidizers, Oxidizing Gases, and Oxidizing Cryogenic Fluids , Chapter 64 Pyrophoric Materials, Chapter 65 Pyroxylin (Cellulose Nitrate) Plastics, Chapter 66 Unstable (Reactive) Materials, and Chapter 67 Water-Reactive Solids and Liquids** are adopted in their entirety without amendments.

71. **Chapter 80 Referenced Standards** is adopted in its entirety with the following amendments:

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

73. **Section 6.7.3** is hereby revised 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.

74. **Section 8.3.3.1** is hereby revised 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:

- A. Quick-response type as defined in 3.6.4.8
- B. Residential sprinklers in accordance with the requirements of 8.4.5
- C. Quick response CMSA sprinklers
- D. ESFR sprinklers
- E. Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers

- F. Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

75. **Section 8.15.1.2.7** is hereby revised as follows:

8.15.1.2.7 Concealed spaces filled with noncombustible insulation shall not require sprinkler protection when approved by the fire code official.

76. **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.

77. **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.

78. **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:

79. **Section 7.1.2** is hereby revised 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.

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

81. **Section 7.3.1.1** is hereby is deleted in its entirety and replaced 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.

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

83. **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.

84. **Section 6.2.9** is hereby amended 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

85. **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

86. **Section 10.4.1.1** is hereby revised 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.

87. **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.

88. **Section 10.4.3.2** is hereby deleted and replaced as follows:

10.4.3. 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.

89. **Appendix B** is adopted in its entirety with amendments outlined in Guideline B-09.
90. **Appendix BB, Appendix C, Appendix CC, and Appendix H** are adopted in its entirety without amendments.

SECTION 8. Sections 8.04.001, 8.04.012, and 8.04.016 in Chapter 8.04 Uniform Sign Code of the Lake Forest Municipal Code are hereby amended and restated in its entirety to read as follows:

A. **"8.04.001 Adoption of the Uniform Sign Code.**

There is adopted by the City Council of the City of Lake Forest, for the purpose of prescribing regulations for the installation of signs, that certain Code known as the Uniform Sign Code, 1997 Edition, published by the International Conference of Building Officials save and except such portions as are hereinafter deleted, modified, or amended, and which Code not less than one (1) copy has been made and is now filed in the office of the Clerk of the City Council; and the same is adopted and incorporated by reference as fully as if set forth at length herein."

B. **"8.04.012 Fees—Section 304 amended.**

Section 304 of the Uniform Sign Code is amended to read as follows:

SECTION 304—FEES.

304.1 Permit Fees. A fee as established by resolution of the City Council shall be paid for each permit at time of issuance.

304.2 Plan Check Fees. A plan-checking fee shall be paid to the City at the time of submitting plans and specifications for checking. Said plan-checking fee shall be established by resolution of the City Council.

304.3 Investigation Fee. An investigation fee as established by resolution of the City Council may be charged by the Director whenever any work for which a permit is required by this Code has been commenced without first obtaining said permit. This fee shall be paid and the investigation shall be made prior to the issuance of any permit for said work. An investigation fee

may be charged for any investigation of a sign, work reports, certification or any other related work requested by an owner or authorized agent of such owner.

304.4 Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This subsection is not to be interpreted as requiring fees the first time a job is rejected for failure to comply with the requirements of this Code, but as controlling the practice of calling for inspection before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the permit card is not properly posted on the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the Director.

To obtain a reinspection, the applicant shall file an application therefor in writing upon a form furnished for that purpose and pay the reinspection fee as established by resolution of the City Council.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

304.5 Double Fees. Failure to obtain a sign permit prior to the erection of a sign shall require the payment of a double fee; however, payment of the double fee shall not relieve any person from fully complying with other provisions of this article, nor from liability to penalties prescribed herein."

C. **"8.04.016 Unsafe and unlawful signs—Section 307 amended.**

Section 307 is added to the Uniform Sign Code to read as follows:

SECTION 307—UNSAFE AND UNLAWFUL SIGNS.

307.1 Inspection. The Director shall inspect at such time as he deems necessary each sign regulated by this article for the purpose of ascertaining whether the sign is secure or insecure and whether it is in need of removal or repair.

If the Director finds that any sign regulated herein is unsafe or insecure, or is a menace to the public, or has been constructed, erected or maintained in violation of the provisions of this article, it shall be abated by repair, rehabilitation, demolition or removal in accordance with the procedure

specified in Section 116 of the California Building Code, as adopted and amended by the City of Lake Forest.

307.2 Summary Removal. The Director may cause any sign which is an immediate peril to persons or property to be removed summarily and without notice.”

SECTION 9. Sections 8.12.001, 8.12.018, and 8.12.022 in Chapter 12 Uniform Housing Code of the Lake Forest Municipal Code are hereby amended and restated in their entirety to read as follows:

A. “8.12.001 Adoption of Uniform Housing Code.

There is adopted by the City Council of the City of Lake Forest, for the purpose of prescribing regulations for the erection, construction, enlargement, alteration, repair, maintenance, moving, improving, removal, conversion, demolition, and occupancy of all buildings or portions thereof used, or designed or intended to be used, for human habitation, that certain Code known as Uniform Housing Code, 1997 Edition, published by the International Conference of Building Officials, except Chapters 11, 12, 13, 14, 15 and 16, and the whole thereof, save and except such portions as are hereinafter deleted, modified or amended, of which Code not less than one (1) copy has been made and is now filed in the office of the Clerk of the City Council; and the same is adopted and incorporated by reference as fully as if set forth at length herein.”

B. “8.12.018 Section 203 amended.

Section 203 of the Uniform Housing Code is amended to read as follows:

SECTION 203—BOARD OF APPEALS

Section 203. In order to provide for final interpretation of the provisions of this Code, there shall be and is hereby created a Board of Appeals as specified in Section 113 of the California Building Code as adopted and amended by the City of Lake Forest.”

C. “8.12.022 Section 401 amended.

Section 401 of the Uniform Housing Code is amended to read as follows:

SECTION 401—DEFINITIONS

For the purpose of this Code, certain abbreviations, terms, phrases, words and their derivatives shall be construed as specified in either this chapter or as

specified in the Building Code.

“Building Code” shall mean the California Building Code published by the California Building Standards Commission as adopted and amended by the City of Lake Forest.

“Building Official” as used herein shall mean the Development Services Director, or his duly authorized representative.

“Efficiency living unit” is a dwelling unit containing only one (1) habitable room and meeting the requirements of Section 1207.4 of the California Building Code.

“Health Officer” shall mean the Health Officer of the City of Lake Forest.

“Hot water” is hot water supplied to plumbing fixtures at a temperature of not less than 110°F (43.3°C.).

“Mechanical Code” shall mean the California Mechanical Code, published by the California Building Standards Commission, as adopted and amended by the City of Lake Forest.

“Nuisance” The following shall be defined as nuisances:

1. Any public nuisance known at common law or in equity jurisprudence.
2. Any attractive nuisance which may prove detrimental to children, whether in a building, on the pre-mises of a building, or upon an unoccupied lot. This includes any abandoned wells, shafts, basements, or excavations; abandoned refrigerators and motor vehicles; or any structurally unsound fences or structures; or any lumber, trash, fences, debris or vegetation which may prove a hazard for inquisitive minors.
3. Whatever is dangerous to human life or is detrimental to health, as determined by the Building Official.
4. Overcrowding a room with occupants.
5. Insufficient ventilation or illumination.
6. Inadequate or unsanitary sewage or plumbing facilities.
7. Uncleanliness, as determined by the Health Officer.
8. Whatever renders air, food, or drink unwholesome or detrimental to the health of human beings, as determined by the Health Officer.

“Plumbing Code” shall mean the California Plumbing Code, published by the California Building Standards Commission, as adopted and amended by the

City of Lake Forest.”

SECTION 10. Section 8.26.001 in Chapter 8.26 Uniform Abatement of Dangerous Buildings Code of the Lake Forest Municipal Code is hereby amended and restated in its entirety to read as follows:

“8.26.001 Adoption of the Uniform Code for the Abatement of Dangerous Buildings.

There is adopted by the City Council of the City of Lake Forest, for the purpose of prescribing regulations for remedying dangerous buildings, that certain Code known as the Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition, published by the International Conference of Building Officials.

Save and except such portions as are hereinafter deleted, modified or amended, of which Code not less than one (1) copy has been made and is now filed in the office of the Clerk of the City Council; and the same is adopted and incorporated by reference as fully as if set forth at length herein.”

SECTION 11. The Uniform Swimming Pool Code adopted and amended by the City of Lake Forest is hereby repealed. Chapter 8.18, Uniform Swimming Pool Code, of the Lake Forest Municipal Code is amended and restated in its entirety to read as follows:

“Chapter 8.18 (RESERVED)”

SECTION 12. The Uniform Solar Energy Code adopted and amended by the City of Lake Forest is hereby repealed. Chapter 8.22, Uniform Solar Energy Code, of the Lake Forest Municipal Code is hereby amended and restated in its entirety to read as follows:

“Chapter 8.22 (RESERVED)”

SECTION 13. Upon the effective date of this Ordinance, all former ordinances or parts thereof conflicting or inconsistent with the provisions of this ordinance of the codes herein adopted by reference and any other ordinance in conflict herewith are hereby repealed and declared to be of no further force and effect.

SECTION 14. The City Council finds that this Ordinance is not subject to the California Environmental Quality Act (CEQA) pursuant to 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 15378) of the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, because it has no potential for resulting in physical change to the environment, directly or indirectly.

SECTION 15. If any section, subsection, subdivision, sentence, clause, phrase, or portion of this Ordinance for any reason is 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 sections, subsections, subdivisions, sentences, clauses, phrases, or portions thereof be declared invalid or unconstitutional.

SECTION 16. Adoption of this Ordinance includes the whole of each Uniform Standards Code, together with accumulative supplements, and associated standards referenced therein, including such portions as may be added by the provisions of this chapter, and except such portions as may be deleted or modified by the provisions of this chapter. One copy of said codes has been and is on file in the office of the Clerk of the Council of the City of Lake Forest.

SECTION 17. The City Clerk shall certify as to the adoption of this Ordinance and shall cause a summary thereof to be published at least five (5) days prior to the meeting at which the proposed Ordinance is to be adopted and shall post a certified copy of the proposed Ordinance in the Office of the City Clerk, and within fifteen (15) days of the adoption, 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.

SECTION 18. This ordinance shall be effective on January 2, 2020, which is to be no less than thirty days after its adoption.

PASSED, APPROVED, AND ADOPTED this 3rd day of December 2019.


MARK TETTEMER
MAYOR

ATTEST:


MARIA D. HUIZAR
CITY CLERK

APPROVED AS TO FORM:



MATTHEW E. RICHARDSON
CITY ATTORNEY

STATE OF CALIFORNIA)
COUNTY OF ORANGE) ss.
CITY OF LAKE FOREST)

I, Maria D. Huizar, City Clerk of the City of Lake Forest, California do hereby certify that the foregoing Ordinance No. 326 was duly introduced and placed upon its first reading at a regular meeting of the City Council on the 5th day of November, 2019, and thereafter, said Ordinance was duly passed and adopted at a regular meeting of the City Council on the 3rd day of December, 2019, by the following vote, to wit:

AYES: COUNCIL MEMBERS: JAMES, MOATAZEDI, ROBINSON,
TETTEMER, VOIGTS

NOES: COUNCIL MEMBERS: NONE
ABSENT: COUNCIL MEMBERS: NONE
ABSTAIN: COUNCIL MEMBERS: NONE


MARIA D. HUIZAR
CITY CLERK