

CITY COUNCIL ORDINANCE NO. 19-14

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, AMENDING CHAPTERS 1, 2, 3, 4, AND 5 OF DIVISION 9 OF SECTION 5 OF THE IRVINE MUNICIPAL CODE PERTAINING TO BUILDING AND FIRE CODE REGULATIONS

The City Council of the City of Irvine, California DOES HEREBY ORDAIN as follows:

SECTION 1. Unless otherwise amended or added, Division 9 of Section 5 of the Irvine Municipal Code is hereby incorporated by reference.

SECTION 2. Chapter 1 of Division 9 of Section 5 of the Irvine Municipal Code is hereby deleted in its entirety and amended to read as follows:

CHAPTER 1. ADOPTION OF BUILDING AND FIRE CODE

Section 5-9-101. Adoption of Building Code.

There is hereby adopted by the City Council for the purpose of prescribing regulations for the construction, alteration, movement, replacement, repair, equipment, use and occupancy, location, maintenance, and removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures, the following building codes by reference subject to the modifications set forth in this Division:

1. California Building Code (CBC) Volumes 1 and 2, 2019 edition with errata (Title 24, Part 2, California Code of Regulations), based on the 2018 International Building Code as published by the International Code Council.
2. California Residential Code (excluding Chapter 1, Division II), 2019 edition with errata (Title 24, Part 2.5, California Code of Regulations), including Appendix O, based on the 2018 International Residential Code as published by the International Code Council.
3. California Green Building Standards Code, 2019 edition with errata (Title 24, Part 11, California Code of Regulations) as published by the International Code Council.
4. California Electrical Code, 2019 edition with errata (Title 24, Part 3, California Code of Regulations), based on the 2017 National Electrical Code, as published by the National Fire Protection Association.

5. California Mechanical Code, 2019 edition with errata (Title 24, Part 4, California Code of Regulations), based on the 2018 Uniform Mechanical Code, including Appendix Chapter D, as published by the International Association of Plumbing and Mechanical Officials.
6. California Plumbing Code, 2019 edition with errata (Title 24, Part 5, California Code of Regulations), based on the 2018 Uniform Plumbing Code, including Appendices A, B, D, G, H and I as published by the International Association of Plumbing and Mechanical Officials.
7. California Energy Code, 2019 edition with errata (Title 24, Part 6, California Code of Regulations).
8. California Existing Building Code, 2019 edition with errata (Title 24, Part 10, California Code of Regulations).
9. Uniform Housing Code, 1997 edition, Chapters 5, 6, 7, 8, 9 and 10 as published by the International Conference of Building Officials.

The provisions of these codes as amended by the provisions of this Division of the Irvine Municipal Code shall constitute the Building Code Regulations of the City of Irvine.

Section 5-9-102. Adoption of Fire Code.

There is hereby adopted by the City Council for the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion, the following fire code by reference subject to the modifications set forth in this Division:

California Fire Code (CFC), 2019 edition with errata (Title 24, Part 9, California Code of Regulations), the 2018 International Fire Code published by the International Code Council and the whole thereof, including Appendix B, Appendix BB, Appendix C, Appendix CC.

The provisions of this code as amended by the provisions of this Division of the Irvine Municipal Code shall constitute the Fire Code Regulations of the City of Irvine.

SECTION 3. Chapter 2 of Division 9 of Section 5 of the Irvine Municipal Code is hereby deleted in its entirety and amended to read as follows:

CHAPTER 2. ADMINISTRATIVE CODE FOR BUILDING CODE REGULATIONS

Section 5-9-201. Adoption of administrative provisions.

- A. Building Code administrative provisions.

There is hereby adopted by the City Council for the purpose of prescribing administrative regulations for the Building Code Regulations of the City of Irvine, the following administrative code provisions by reference subject to the modifications set forth in this Division:

Chapter 1, Division II of the California Building Code, (Title 24, Part 2, California Code of Regulations).

Section 5-9-202. Scope and General.

- A. Section 101.2 Scope, of Chapter 1, Division II of the California Building Code is hereby amended to add a new second paragraph to read:

The provisions of these codes shall apply to and affect all of the territory of the City of Irvine, except encroachments and public works located primarily in a public way; public utility towers and poles; mechanical equipment not specifically regulated in these codes; hydraulic flood control structures; facilities for the production, generation, storage or transmission of water or electrical energy by a local agency; and the buildings or structures of administration and instruction of public schools when acting under the State Contract Act and except as exempted by these codes.

- B. Section 101.2 of Chapter 1, Division II of the California Building Code is hereby amended to delete and replace the Exception to 101.2 Scope to read:

Exception: Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above the grade plane in height with a separate means of egress and their accessory structures shall comply with the California Residential Code. Notwithstanding the foregoing, the administrative provisions contained in Chapter 1, Division II of the California Building Code shall apply to the above referenced dwellings.

- C. Section 101.4 of Chapter 1, Division II of the California Building Code is hereby amended to delete and replace 101.4.1 through 101.4.7 and add 101.4.8 to read:

101.4.1 Electrical. The provisions of the California Electrical Code shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

101.4.2 Gas. The provisions of the California Mechanical Code shall apply to the installation of gas piping from the point of delivery, gas appliances and related accessories as covered in this code. These requirements apply to gas piping systems extending from the point of delivery to the inlet connections of appliances and the installation and operation of residential and commercial gas appliances and related accessories.

101.4.3 Mechanical. The provisions of the California Mechanical Code shall apply to the installation, alterations, repairs and replacement of mechanical systems, including equipment, appliances, fixtures, fittings and/or appurtenances, including ventilating, heating, cooling, air-conditioning and refrigeration systems, incinerators and other energy-related systems.

101.4.4 Plumbing. The provisions of the California Plumbing Code shall apply to the installation, alteration, repair and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system. The provisions of the California Plumbing Code shall apply to private sewage disposal systems.

101.4.5 Reserved.

101.4.6 Fire prevention. The provisions of the California Fire Code shall apply to matters affecting or relating to structures, processes and premises from the hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices; from conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and from the construction, extension, repair, alteration or removal of fire suppression and alarm systems or fire hazards in the structure or on the premises from occupancy or operation.

101.4.7 Energy. The provisions of the California Energy Code, Title 24, Part 6 shall apply to all matters governing the design and construction of buildings for energy efficiency.

101.4.8 Existing buildings. The provisions of the California Existing Building Code shall apply to matters governing the repair, alteration, change of occupancy, addition to and relocation of existing buildings.

Section 5-9-203. Division of Building and Safety.

- A. Division of Building and Safety. The title of Section 103 and all places where “Department of Building and Safety” or “department” occurs in Chapter 1, Division II of the California Building Code (or otherwise occurs in any of the California Building Code) is hereby amended to delete:

“Department of Building and Safety” and amended to substitute:

“Division of Building and Safety”.

- B. Chief Building Official. Section 103.1 of Chapter 1, Division II of the California Building Code is hereby amended to add a second sentence to read:

Where referred to by this code, "building official" shall mean the Chief Building Official of the City of Irvine or his/her designee. Any and all classification or title changes are made with respect to approvals thereto by the City Council.

Section 5-9-204. Duties and Powers of Building Official.

- A. Right of Entry. Section 104.6 of Chapter 1, Division II of the California Building Code is hereby amended to add a second paragraph to read:

When the Chief Building Official or his/her authorized representative shall have first obtained a proper inspection warrant or other remedy provided by law to secure entry, no owner or occupant or any other persons having charge, care of control of any building or premises shall fail or neglect, after proper request is made as herein provided, to promptly permit entry therein by the Chief Building Official or his/her authorized representative for the purpose of inspection and examination pursuant to this code's Emergency Abatement Authority.

- B. Emergency Abatement Authority. Section 104 of Chapter 1, Division II of the California Building Code is hereby amended to add Section 104.12 to read:

Section 104.12 Emergency Abatement Authority

1. Authority. Whenever the Chief Building Official determines that an imminent life safety hazard exists that requires immediate correction or elimination, the Chief Building Official or his/her designee may exercise any or all of the following powers:
  - a. Order the immediate vacation of any tenants and prohibit occupancy until all repairs are completed.
  - b. Post the premises as unsafe, substandard or dangerous.
  - c. Board, fence or secure the building or site.
  - d. Raze and grade that portion of the building or site to prevent further collapse and remove any hazard to the general public.
  - e. Make emergency repairs as necessary to eliminate any imminent life safety hazard.
  - f. Cause any dangerous water, electrical, gas or plumbing connections to be disconnected.
  - g. Take any other action as appropriate under the circumstances.

2. Procedures. The Chief Building Official or his/her designee shall comply with the following emergency abatement procedures:
  - a. In determining the existence of an imminent life safety hazard, the Chief Building Official or his/her designee shall conduct a personal inspection of the hazard and issue a brief written report identifying the nature, scope and condition of the hazard.
  - b. The Chief Building Official or his/her designee shall give notice, setting forth the imminent life safety hazard found, to the owner, occupant, other responsible person or authorized representative of the building, structure or site upon which the hazardous condition exists. If the Chief Building Official or his/her designee determines that, under the circumstances, notice cannot be given or is impractical, correction or abatement of the hazard can be commenced without prior notice.
  - c. The level of correction or abatement as necessary to eliminate the immediacy of the hazard shall be determined by the Chief Building Official or his/her designee.
  - d. The Chief Building Official or his designee may also pursue any administrative or judicial remedy to abate any remaining public nuisance.

Section 5-9-205. Permits.

- A. Section 105.1 Required, of Chapter 1, Division II of the California Building Code is hereby amended to add Section 105.1.3 to read:

Section 105.1.3 Permit exemption.

Permits are required for installations described in all codes adopted by reference unless specifically exempted by these codes or by the Chief Building Official, in writing, for proper cause on an individual case basis after consideration of all circumstances and facts presented. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

- B. Section 105.2 Work exempt from permit, of Chapter 1, Division II of the California Building Code, is hereby modified as follows:

Building Permits:

1. Amend Section 105.2 Building item 1 to read:

1. One story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the structure conforms to the Zoning Code and the floor area does not exceed 120 square feet (11 square meters), except patio covers and structures located in any Very High Fire Severity Zone, or within a 100-Foot Buffer Zone.
2. Delete Section 105.2 Building item 5 Water tanks.
3. Amend Section 105.2 Building item 11 to read:
  11. Swings and other playground equipment. Exemptions from permit requirements of this code for playground equipment shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other state laws or ordinances of this jurisdiction, and equipment is subject to City review and approval when otherwise required by state or local laws, regulations or standards.
4. Amend Section 105.2 Building to add item 14 to read:
  14. Replacement windows and doors having the same dimension as those being replaced and not requiring any change to the structural frame or opening size. Such replacements must still conform to all technical codes and applicable city, county and state ordinances relating to weather proofing, security and energy efficiency.

Plumbing Permits:

1. Amend Section 105.2 Plumbing item 2 to read:
  2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures and the removal and reinstallation or replacement of water closets, sinks, garbage disposals or dishwashers, provided such work does not involve or require the replacement or rearrangement of valves, pipes or fixtures and is in conformance with this code and applicable state laws.

- C. Time limitation of application. Section 105.3.2 of Chapter 1, Division II of the California Building Code is hereby deleted and amended to read:

Section 105.3.2 Time limitation of application. Applications for a permit for any proposed work for which no permit is issued shall be deemed to have expired 360 days after the date of filing. The Chief Building Official is authorized to grant one extension of time for action by the applicant for a period not exceeding 180 days. The extension shall be requested in writing and justifiable cause demonstrated. When required by state law or City ordinance, extended permit applications shall be amended to comply with

pertinent state laws and City ordinances adopted subsequent to the date of application. Plans and other data submitted for review and relating to an expired application may be returned to the applicant or destroyed by the Chief Building Official.

Applications for a permit for any proposed work submitted as the result of a code enforcement written notice of violation for which no permit is issued shall be deemed to have expired 30 days from the date of filing. The Chief Building Official is authorized to grant extension of time for justifiable good cause.

- D. Expiration. Section 105.5 of Chapter 1, Division II of the California Building Code is deleted and amended to read:

Section 105.5 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days (except one year for residential permits) 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. The Chief Building Official is authorized to grant, in writing, no more than two extensions of time, for periods not more than 180 days each. Such extensions may require the payment of permit fees based on the remainder of work to be completed. The extension shall be requested in writing and justifiable cause demonstrated.

- E. Placement of permit. Section 105.7 of Chapter 1, Division II of the California Building Code is hereby amended to read:

Section 105.7 Placement of permit and inspection record card. The building permit or copy and the inspection record card shall be kept on site and maintained available by the permit holder until final approval has been granted by the Chief Building Official.

- F. Residential Remodeling. Chapter 1, Division II of the California Building Code is hereby amended to add Section 105.8 to read:

Section 105.8 Residential remodeling. The following regulations and definitions shall apply to all remodeling construction on residential buildings and properties:

1. Completion of construction. All building permits for residential remodeling shall expire in accordance with the provisions of the building code if work is not commenced within one year from the date of such permit, or if the work authorized by permit is suspended or abandoned, for 180 days at any time after the work is commenced. Notwithstanding the above, and subject to the provisions for extensions provided in subsection 2 below, all residential remodeling shall be completed by the

owner, owner's agent or the permittee and approved by the City within the following time frame from the date of permit issuance:

- |   |           |
|---|-----------|
| a. Room additions (exterior of buildings and property area) | 18 months |
| b. Pools/Spas   | 12 months |
| c. Patio covers   | 6 months  |
| d. Water heaters, water softeners and air conditioners      | 6 months  |
| e. Fireplaces   | 6 months  |
| f. Skylights  | 6 months  |
| g. All other remodeling or building air conditioners        | 6 months  |

2. Extensions. Upon written request of the owner or permittee, the Chief Building Official and/or his/her designated representative may extend the period for completion of construction, in writing, for a period not to exceed 180 days. The written request must demonstrate to the Chief Building Official, who shall have the authority to make such a determination, that (1) due to circumstances beyond the owner's or permittee's control, construction could not be completed within the time frame allowed by this section; (2) that reasonable progress has been made; (3) that the condition of the property presents no health or safety hazard; and (4) that the continued delay will not create any unreasonable visual or physical detriment to the neighborhood. The decision of the Chief Building Official may be appealed to the City Council by any person who owns property or resides within 300 feet of the boundaries of the subject property.

Any extension beyond 180 days must be approved by the Planning Commission. The Planning Commission's decision regarding approval or denial of the application for additional extension shall be based upon the applicant's ability to demonstrate the same factors required for the initial extension of the building construction period.

Not completing the remodel within the above mentioned timeframe or approved extension shall be considered a violation of the City Municipal Code and subject to penalties outlined in Section 4-13-307.A of the City Municipal Code.

3. Maintenance of property during remodeling. During remodeling, all property shall be maintained in a reasonably clean and well-kept

manner. All lumber and building materials shall be neatly piled or stacked in a safe manner and stored in the rear yard of the residential property or inside of the building construction perimeter except that building materials may be stored in a front yard for a period not to exceed 30 days. Properties shall be secured by fencing when the Chief Building Official determines fencing is necessary for public safety and/or welfare.

Exterior walls and roofs of buildings shall be covered with finished materials, in accordance with City-approved plans and the Building Code within six months from the commencement of construction. A written waiver of this requirement may be obtained from the Chief Building Official or his/her designated representative if the construction is screened from view from adjacent occupied or public property with fencing materials approved by City zoning and building regulations.

4. Definitions.

- a. Remodeling. "Residential remodeling construction" is defined as construction of work which constitutes construction, enlargement, alteration, erection, repair, demolition, or improvement of an existing residential structure or other improvement located on residential property.
- b. Reasonable progress. "Reasonable progress" shall mean a demonstration that all means reasonably available to the permittee to complete the work within the prescribed time have been exhausted.

G. Change of contractor or of ownership. Chapter 1, Division II of the California Building Code is hereby amended to add Section 105.9 to read:

Section 105.9 Change of contractor or of ownership. A permit issued hereunder shall expire upon a change of ownership or a change of contractor for the building, structure or grading for which said permit was issued if the work thereon has not been completed and received a final inspection approval and a new permit shall be required for the completion of the work. If no changes have been made to the plans or specifications last submitted to the Chief Building Official, a permit issuance fee as set forth in the City's fee resolution shall be charged to the permit applicant. If changes to the plans or specifications have been made, the Chief Building Official shall determine appropriate permit fees in accordance with the City's fee resolution.

H. Subcontractors. Chapter 1, Division II of the California Building Code is hereby amended to add Section 105.10 to read:

Section 105.10 Subcontractors. At the time of permit issuance, the applicant shall complete a form provided by the City Division of Building and

Safety, which lists all subcontractors, and shows verification of workers' compensation insurance, state contractor license and license category, City business license and federal tax identification number for each subcontractor. No person shall contract or sub-contract construction work without a valid contractor's license pursuant to applicable provisions of the State of California Business and Professions Code.

In the event that the applicant cannot provide a complete list of valid subcontractors at the time of permit issuance, the applicant shall provide such information to the City, within a reasonable period of time after award of each permit. Failure to provide timely valid and current sub-contractor listings shall result in the permit applicant paying a penalty for default to the City in an amount equal to the original permit fee for each sub-contractor violation in order to defray City costs of enforcement of this section. Failure to remit penalty payment shall constitute a violation of this code, punishable as a misdemeanor under the City charter.

- I. Approvals. Chapter 1, Division II of the California Building Code is hereby amended to add Section 105.11 to read:

Section 105.11 Approvals. To be valid, any approval, waiver, determination or similar action referenced in this code benefiting the party so requesting such action must be in writing and prepared by a City individual with authority to provide the same.

Section 5-9-206. Construction documents.

- A. Small residential rooftop solar energy systems. Section 107.1.1 of Chapter 1 of Division II of the California Building Code is hereby added to read:

Section 107.1.1 Small residential rooftop solar energy systems. Applications for *small residential rooftop solar energy systems* may be processed utilizing the *City of Irvine Small Residential Rooftop Solar Energy System Expedited/Streamlined Process*.

- B. Electric vehicle charging stations. Section 107.1.2 of Chapter 1 of Division II of the California Building Code is hereby added to read:

Section 107.1.2 Electric vehicle charging stations. Applications for *electric vehicle charging stations* may be processed utilizing the *City of Irvine Electric Vehicle Charging Station Expedited/Streamlined Process*.

- C. Means of egress. Section 107.2.3 of Chapter 1, Division II of the California Building Code is hereby deleted and amended to read:

Section 107.2.3 Means of egress. The construction documents shall show in sufficient detail the location, construction, size and character of all

portions of the means of egress, including the path of exit discharge to the public way, in compliance with the provisions of this code. In Group A occupancies, the construction documents shall designate the number of occupants to be accommodated on every floor and in all rooms and spaces.

Section 5-9-207. Reserved.

Section 5-9-208. Fees.

- A. Schedule of plan review, permit and investigation fees. Section 109.2 of Chapter 1, Division II of the California Building Code is hereby deleted and amended to read:

Section 109.2 Schedule of plan check and permit fees. A fee for each building, electrical, plumbing or mechanical permit shall be paid as established by City Council resolution in effect at the time of issuance of the permit.

Section 109.2.1 Permit fees. The fee for each permit shall be as set forth in the fee schedule established by City Council resolution in effect at the time of issuance of the permit.

Section 109.2.2 Plan review fees. When submittal documents are required by California Building Code Chapter 1, Division II Section 107.3.4.1, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. Said plan review fees shall be as set forth in the fee schedule established by City Council resolution in effect at the time of plan review submittal.

The plan review fees specified in this section are separate fees from the permit fees specified in Section 109.2.1 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 as set forth in the fee schedule established by the City Council resolution in effect at the time of the additional or defined plan review submittal.

Section 109.2.3 Investigation fees. Whenever work for which a permit is required by this code has been commenced without first obtaining a permit, the Chief Building Official may require an investigation to be made before a permit may be issued for such work.

An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued to recover City costs of investigation. The payment of such investigation fee shall not exempt an

applicant from compliance with all other provisions of this code, the technical codes or from the penalty prescribed by law.

- B. Building permit valuations. Section 109.3 of Chapter 1, Division II of the California Building Code is hereby deleted and amended to read:

Section 109.3 Building permit valuations. The determination of value or valuation under any of the provisions of these Codes shall be made as set forth in the fee schedule established by City Council resolution in effect at the time of plan review submittal. The value to be used in computing the building permit and building plan review fees shall be the total value of all construction work, including materials and labor, for which the permit is issued as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems and other permanent equipment.

- C. Refunds. Section 109.6 of Chapter 1, Division II of the California Building Code is hereby deleted and amended to read:

Section 109.6 Refunds. The Chief Building Official may authorize refunding of a fee paid hereunder which was erroneously paid or collected.

The Chief Building Official may authorize refunding 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 Chief 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 examination time has been expended.

The Chief Building Official shall not authorize the refunding of any fee paid except upon written application filed by the permittee not later than 360 days after the date of fee payment or as otherwise required by law.

- D. Strong Motion Instrumentation Program fee. Section 109.7 of Chapter 1, Division II of the California Building Code is hereby added to read:

1. Scope and purpose. In accordance with Public Resources Code Division 2, Chapter 8 (Public Resources Code § 2700 *et seq.*), each applicant for a building permit pursuant to this division shall be charged a fee as described herein for purposes of administering the State of California Strong Motion Instrumentation Program. Said fees are in addition to any and all other fees required for applicants for the issuance of building permits.

2. Definitions:

Building. For the purpose of this section, a building is any structure built for the support, shelter, or enclosure of persons, animals, chattels or property of any kind.

Fee schedule. Every applicant for a building permit shall pay a Strong Motion Instrumentation Program fee in the amount stipulated by the State of California.

Administration. The Manager of Fiscal Services or his or her authorized representative shall file all reports and pay all fees as required by the provisions of Chapter 8, Division 2 of the California Public Resources Code (Public Resources Code § 2700 et seq.), and shall comply with all rules and regulations of the State of California Department of Conservation, as administrative agency for the program.

Section 5-9-209. Inspections.

- A. Required inspections. Section 110.3 of Chapter 1, Division II of the California Building Code is hereby amended to read:

110.3 Required inspections. The Chief Building Official, upon notification to the City shall make the inspections set forth in Sections 110.3.1 through 110.3.12.

110.3.1 Pre-Construction Inspection. A pre-construction inspection shall be conducted prior to start of construction for all projects involving new buildings, all additions to non-residential structures, all remodels involving a new restaurant establishment and all non-residential tenant improvements exceeding 5,000 square feet unless waived by the Chief Building Official.

110.3.2 Footing and foundation inspection. Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready mixed in accordance with ASTM C 94 in which case the concrete need not be on the job.

110.3.3 Concrete slab and under-floor inspection. Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the subfloor.

110.3.4 Lowest floor elevation. In flood hazard areas, upon placement of the lowest floor, including the basement and prior to further vertical construction, the elevation certification required in Section 1612.5 shall be submitted to the Chief Building Official.

110.3.5 Frame inspection. Framing inspections shall be made after the roof deck or sheathing, all framing, fireblocking and bracing are in place, and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are approved.

110.3.6 Lath and gypsum board inspection. Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place, but before any plastering is applied or gypsum board joints and fasteners are taped and finished.

Exception: Gypsum board that is not part of a fire-resistance-rated assembly or a shear assembly.

110.3.7 Fire-resistant penetrations. Protection of joints and penetrations in fire resistance-rated assemblies.

110.3.8 Weather-exposed balcony and walking surface waterproofing. Where balconies or other elevated walking surfaces are exposed to water from direct or blowing rain, snow or irrigation, and the structural framing is protected by an impervious moisture barrier, all elements of the impervious moisture barrier system shall not be concealed until inspected and approved.

Exception: Where special inspections are provided in accordance with Section 1705.1.1. Item 3.

110.3.9 Energy efficiency inspections. Inspections shall be made to determine compliance with the California Energy Code and shall include, but not be limited to, inspections for: envelope insulation R and U values, fenestration U value, duct system R value, and HVAC and water-heating equipment efficiency.

110.3.10 Other inspections. In addition to the inspections specified above, the Chief Building Official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws that are enforced by the department of building and safety.

110.3.11 Special inspections. For special inspections, see Section 1704.

110.3.12 Final inspection. The final inspection shall be made after all work required by the building permit is completed.

Section 5-9-210. Certificate of Occupancy

- A. Section 111.1 Change of Occupancy, of Chapter 1, Division II of the California Building Code is hereby amended to delete and replace the exception to read:

Exception: R-2 occupancy apartments and condominiums, R3 occupancy one- and two-family dwellings and work exempt from permits under Section 105.2.

- B. Section 111.2 Certificate Issued, of Chapter 1, Division II of the California Building Code is hereby amended to delete items 10 and 12 and replace to read:

10. The design occupant load when required by the Chief Building Official.
12. Any special stipulations and conditions of the building permit when required by the Chief Building Official.

Section 5-9-211. Reserved.

Section 5-9-212. Board of Appeals.

- A. Section 113.1 of Chapter 1, Division II of the California Building Code is hereby deleted and amended to read:

Section 113.1 General. An Appeals Board Committee shall be established, either prior to or immediately following receipt of a completed application for an appeal hearing, to hear and decide appeals of orders, decisions or determinations made by the Chief Building Official relative to the application and interpretation of this code. This board/committee shall consist of one member appointed by each City Council member who is qualified by experience and training to pass upon matters pertaining to building construction and who is not an employee of the City of Irvine. An additional two physically disabled persons shall be appointed by the City Council to participate and vote only on matters concerning physically disabled access.

The Chief Building Official shall be an ex-officio member of the Appeals Board Committee and shall act as secretary to said board, but shall have no vote upon any matter before the Appeals Board Committee.

The Appeals Board Committee shall render decisions by majority vote in response to City staff reports. Minutes of all proceedings shall be maintained by City staff.

The hearing is intended to be informal in nature. Formal rules of the California Evidence Code and discovery shall not apply, except that irrelevant and unduly repetitious evidence may be excluded at the Appeals Board Committee's discretion. Each party shall have the opportunity to offer testimony and evidence and cross-examine witnesses in support of his or her case.

The Chief Building Official shall maintain a full set of records for each case in accordance with the City of Irvine records retention schedule.

Section 113.1.1 Application and request for hearing. Within 15 calendar days from the date the order, decision or determination of the Chief Building Official, the applicant must make a written request for a hearing. If no appeal notice is filed within the 15 calendar-day period, the decision shall be deemed confirmed and final.

Applicants for a hearing before the Appeals Board Committee shall pay a fee in the amount set by City Council resolution prior to administrative processing for any proceedings. The applicant shall complete the established City application form for an appeals hearing along with submittal of required fees.

Section 113.1.2 Notification of hearing. At least 15 calendar days prior to the date of the hearing, the City shall, by registered or certified mail or personal service, give notice to the applicant of the time, date and location of the hearing.

Section 113.1.3 Notification of decision. Within 10 calendar days of the hearing's conclusion, the Chief Building Official shall provide the applicant with the Appeals Board Committee decision in writing. The written decision shall contain the Appeals Board Committee findings of fact and conclusions.

- B. Limitations on authority. Section 113.2 of Chapter 1, Division II of the California Building Code is hereby deleted and amended to read:

Section 113.2 Limitations on authority. An application for appeal shall be based on a claim that the true intent of this code or rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better form of construction is proposed. The board shall have no authority relative to interpretation of the administrative provisions of this code or to waive requirements of either the administrative or technical codes.

- C. Qualifications. Section 113.3 of Chapter 1, Division II of the California Building Code is hereby deleted.

Section 5-9-213. Violations.

- A. Unlawful acts. Section 114.1 of Chapter 1, Division II of the California Building Code is hereby deleted and amended to read:

Section 114.1 Unlawful acts. It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish, occupy, possess, control or have an interest in any building, structure or equipment regulated by this code, or cause the same to be done, in conflict with or in violation of any of the provisions of the codes and ordinances adopted by the City of Irvine.

- B. Violations and penalties. Section 114.4 of Chapter 1, Division II of the California Building Code is hereby deleted and amended to read:

Section 114.4 Violations and penalties. Any person, firm or corporation violating any of the provisions of the codes adopted by the City of Irvine or failing to comply with any of the requirements thereof, or who erects, constructs, alters or repairs a building or structure in violation of the approved construction documents or directive of the Chief Building Official, or of a permit or certificate issued according to the provisions of this code, shall be deemed guilty of a misdemeanor; each such person, firm or corporation shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation is committed, continued or permitted; and upon conviction of any such violation such person shall be punished by a fine or by imprisonment as prescribed in Section 4-13-201 of the Municipal Code, or by both such fine and imprisonment.

- C. Attorneys' fees and costs. Section 114.5 of Chapter 1, Division II of the California Building Code is hereby added to read:

Section 114.5 Attorneys' fees and costs. Any person violating the provisions of this chapter shall reimburse the City for any and all costs, expenses and fees incurred by the City in responding to, investigating, assessing, monitoring, treating, cleaning, removing or remediating any action taken or condition caused in violation of this chapter. Such costs, expenses and fees to be paid to the City shall include all administrative expenses and all legal expenses, including costs and attorneys' fees in obtaining compliance and in litigation, including all costs and attorneys' fees on any appeal. The costs to be recovered pursuant to this section shall be recoverable from any and all persons violating this code. When required by law, this provision shall act as a prevailing party provision entitling the prevailing party to an award of attorneys' fees.

Section 5-9-214. Reserved.

Section 5-9-215. Reserved.

SECTION 4. Chapter 3 of Division 9 of Section 5 of the Irvine Municipal Code is hereby deleted in its entirety and amended to read as follows:

### CHAPTER 3. ADMINISTRATIVE CODE FOR FIRE CODE REGULATIONS

Section 5-9-301. Adoption of administrative provisions.

A. Fire Code administrative provisions.

There is hereby adopted by the City Council for the purpose of prescribing administrative regulations for the Fire Code Regulations of the City of Irvine, the following administrative code provisions by reference subject to the modifications set forth in this Division:

Chapter 1, Division II of the California Fire Code, 2019 edition (Title 24, Part 9, California Code of Regulations).

B. Enforcement. The California Fire Code with amendments set forth in this Division shall be enforced by the Orange County Fire Authority (OCFA), which shall be operated under the Fire Chief of the Orange County Fire Authority. The Fire Chief of the OCFA may designate such members of the fire authority as inspectors as shall be necessary from time to time.

Section 5-9-302. Reserved.

Section 5-9-303. Reserved.

Section 5-9-304. Reserved.

Section 5-9-305. Violation penalties.

A. Violation penalties. Section 110.4 Violation penalties is hereby revised as follows:

Section 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.

B. Infractions and misdemeanors. Section 110.4.2 Infraction and misdemeanor is hereby added as follows:

Section 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.

SECTION 5. Chapter 4 of Division 9 of Section 5 of the Irvine Municipal Code is hereby deleted in its entirety and amended to read as follows:

CHAPTER 4. AMENDMENTS TO BUILDING AND FIRE CODE  
TECHNICAL REGULATIONS

Section 5-9-401 Building Code.

- A. General Definitions. Section 202 of Chapter 2 of the California Building Code is hereby amended to add or modify the following definitions to read:

CITY OF IRVINE ELECTRIC VEHICLE CHARGING STATION EXPEDITED/STREAMLINED PERMITTING PROCESS: A ministerial permitting process for electric vehicle charging station installations. For such installations, the process, including permit issuance, may be conducted entirely online utilizing digital forms or may be conducted over the counter at the City's One-Stop Permit Processing Center utilizing printed forms.

- B. Address Identification. Section 501.2 of Chapter 5 of the California Building Code is hereby deleted and amended to read:

501.2 Address identification. New and existing buildings shall have approved address numbers as required by Chapter 5 Uniform Security Code of Division 9 Building Regulations of Title 5 Planning of the City of Irvine Municipal Code.

Exception: Legal non-conforming addressing may be maintained. Any replacement addressing shall comply with current provisions to the extent practicable as determined by the Chief Building Official.

- C. Materials and Construction Methods for Exterior Wildfire Exposure. Chapter 7A of the California Building Code is hereby modified as follows.

1. Section 701A.3 Application is hereby revised as follows:

701A.3 Application. New buildings located in any Fire Hazard Severity Zone or any Wildland-Urban Interface Fire Area designated

by the enforcing agency constructed after the application date shall comply with Chapter 7A.

Additions to and remodel of buildings constructed before 2012 located in areas currently designated as such, shall comply with the provisions of this chapter listed below.

1. Vents 706A.1 General
2. Decking 709A.1 General
3. Accessory Structures 710A.1 General

The provisions shall also apply to additions, remodels, and accessory structures located within:

1. Very High Hazard Severity Zone
2. Wildland-Urban Interface Area as defined in 2019 Chapter 7A section 702A
3. 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.

2. Section 702A Definitions is hereby amended to include the term 100-Foot Buffer Zone and after the term, its definition to read as follows:

100-Foot Buffer Zone is that area on private property within 100 feet of a fuel modification or open space area containing native or hazardous vegetation, and which is designated on the currently adopted Wildland Fire Hazard Map for the City of Irvine.

- D. Fire Protection Systems. Chapter 9 of the California Building Code is hereby modified as follows:

1. Section 903.2 Where required. Section 903.2 is hereby deleted and amended to read:

Section 903.2 Where required. Approved automatic sprinkler systems in buildings and structures shall be provided in the following locations:

1. New buildings or structures. 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 m<sup>2</sup>), or more than two stories in height, regardless of fire areas or allowable area.

Exceptions:

1. Group R-3 occupancies. Group R-3 occupancies shall comply with Section 903.2.8.
  2. Subject to approval by the Fire Code Official, open parking garages in accordance with Section 406.5 of the California Building Code.
2. Alterations to existing non-sprinklered non-residential buildings or structures. Approved automatic sprinkler systems shall be provided throughout existing non-sprinklered buildings and structures when the floor area of alterations within any two-year period exceeds 75 percent of area of the existing structure and the alteration includes structural modifications other than seismic upgrades.
  3. Additions to existing non-sprinklered non-residential buildings or structures. Approved automatic sprinkler systems shall be provided throughout the entire building or structure when the gross floor area of the existing building or structure and addition exceeds 6,000 square feet and the addition is greater than 1,000 square feet in gross floor area.

2. Section 903.2.8 Group R. The first paragraph of Section 903.2.8 is hereby deleted and amended to read:

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

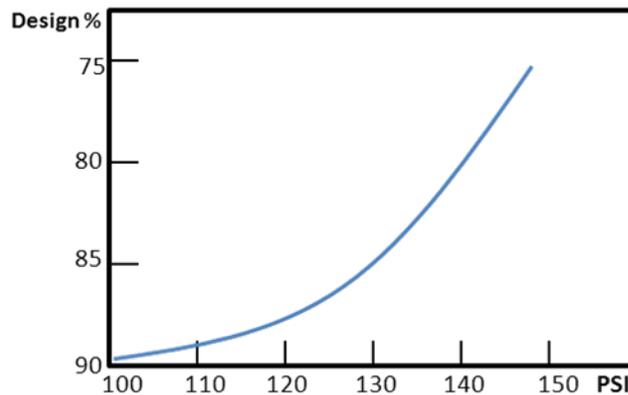
An automatic sprinkler system shall be installed throughout any existing building when the floor area of alterations within any two year period exceeds 50 percent of gross floor area of the existing structure and the building gross floor area exceeds 5,500 square feet.

3. 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 percent 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**



- E. Ventilation. Section 1202 of Chapter 12 of the California Building Code is hereby modified as follows:

1. Section 1202.2.2 Openings into attic is hereby deleted and amended to read:

1202.2.2 Openings into attic. Exterior openings into the attic space of any building intended for human occupancy shall be protected to prevent

the entry of birds, squirrels, rodents, snakes and other similar creatures. Openings for ventilation having a least dimension of 1/16 inch (1.6 mm) minimum and 1/8 inch (3.2 mm) maximum shall be permitted. Openings for ventilation having a least dimension larger than 1/8 inch (3.2 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth or similar material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and 1/8 inch (3.2 mm) maximum. Where combustion air is obtained from an attic area, it shall be in accordance with Chapter 7 of the California Mechanical Code.

2. 1202.4.1 Ventilation openings is hereby deleted and amended to read:

1202.4.1 Ventilation openings. Ventilation openings through foundation walls shall be provided. The openings shall be placed so as to provide cross ventilation of the under-floor space. The net area of ventilation openings shall be in accordance with Section 1202.4.1.1 or 1202.4.1.2. Ventilation openings shall be covered for their height and width with any of the following materials, provided that the least dimension of the covering shall be not greater than 1/8 inch (3.2 mm):

1. Perforated sheet metal plates not less than 0.070 inch (1.8 mm) thick
2. Expanded sheet metal plates not less than 0.047 inch (1.2 mm) thick
3. Cast-iron grilles or gratings
4. Extruded load-bearing vents
5. Hardware cloth of 0.035 inch (0.89 mm) wire or heavier
6. Corrosion-resistant wire mesh, with the least dimension not exceeding 1/8 inch (3.2 mm)

1202.4.1.1 [SPCB] Openings for under-floor ventilation shall be not less than 1 1/2 square feet (0.135 m<sup>2</sup>) for each 25 linear feet (7620 linear mm) of exterior wall. They shall be covered with corrosion-resistant wire mesh with mesh openings not less than 1/16 inch (1.6 mm) nor more than 1/8 inch (3.2 mm) in any dimension.

- F. Minimum roof covering classification. Section 1505.1 of Chapter 15 of the California Building Code is hereby modified as follows:

1. Table 1505.1 Minimum Roof Classification for Types of Construction. Table 1505.1 is hereby deleted and amended to read:

TABLE NO. 1505.1 MINIMUM ROOF COVERING  
CLASSIFICATION FOR TYPES OF CONSTRUCTION (1)

TYPES OF CONSTRUCTION								
IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
A	A	A	A	A	A	A	A	A

Note (1): See Section 1505.1.1 for roof covering classifications within Very High Fire Severity Zones or Wildland Urban Interface Areas.

2. Section 1505.1.1 Roof coverings within very high fire hazard severity zones. Section 1505.1.1 is hereby amended to delete the Exception.
3. Section 1505.1.3 Roof coverings within all other areas. Section 1505.1.3 is hereby deleted and amended to read:

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 comply with Table 1505.1.

G. Structural Tests and Special Inspections. Chapter 17 of the California Building Code is hereby modified as follows:

1. Section 1704.2.1 Special inspector qualifications is hereby deleted and amended to read:

Section 1704.2.1 Qualifications of special inspector, examination and certificate of registration.

1. The special inspector shall be a qualified person approved by the Building Official or his or her designated representative. The special inspector shall furnish continuous or periodic inspection on the construction and work requiring his or her employment as prescribed in the applicable code and statement of special inspections. The special inspector shall report to the Chief Building Official in writing, noting all code violations and other information as required on forms prescribed by the City of Irvine.
2. Each person applying for listing/registration as a special inspector for the City of Irvine shall possess a valid special inspector certificate, issued as evidence of successful completion of testing/examination by a testing agency which is acceptable to the Chief Building Official, for each classification for which the person is applying. On special

occasion, the Chief Building Official may administer an oral interview and/or appropriate testing for certification.

3. Each person applying for registration as a special inspector for the City of Irvine shall pay a registration fee of \$20.00 or as established by resolution of the City Council for each classification payable with the application upon approval for listing.
  4. A registration card shall be issued to each such special inspector who qualifies. A renewal fee of \$20.00 or as established by resolution of the City Council for each classification shall be charged on July 1 of each year, thereafter, at which time the special inspector may, at the Chief Building Official's discretion, be subject to reexamination.
  5. The Chief Building Official may revoke any special inspector's certificate of registration at any time for due cause on written notice. This notice shall set forth the time and place for a hearing at which time evidence may be submitted to show cause why the certificates of registration should not be withdrawn.
  6. Failure to appear at such hearing by the special inspector may result in immediate revocation of said inspector's certificate of registration.
  7. Special inspector's qualification registrations are to be given only for the execution of work done under Chapter 17 of the California Building Code in the City of Irvine or for work specifically authorized by the Chief Building Official.
2. Section 1704.2.5 Inspection of fabricators is hereby deleted and amended to read:

1704.2.5 Inspection of fabricators. Where fabrication of structural load-bearing members and assemblies is being performed on the premises of a fabricator's shop, the fabricator must be registered and approved by a recognized agency to perform such work.

3. Section 1704.2.5.1 Fabricator approval is hereby deleted and amended to read:

1704.2.5.1 Fabricator approval. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved agency. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the Building Official, stating that the work was performed in accordance with the approved construction documents.

4. Section 1705.3 Special inspection for concrete construction of the California Building Code is hereby amended as follows:

1. Table 1705.3. Item 7 is hereby deleted and amended to read:

7. Inspection of concrete and shotcrete placement for proper application techniques including all structural concrete placement for new swimming pools.

2. Section 1705.3 Exception. Items 3, 4, and 5 of the exception are hereby deleted and amended to read:

3. Concrete in building foundations and slabs supported on grade less than 500 square feet in area in all occupancies and other non-building construction.

4. Concrete patios, driveways and sidewalks on grade.

5. (Deleted)

H. Swimming Pool, Spa and Hot Tub. Section 3109 of the California Building Code is hereby amended to add Section 3109.2.1 as follows:

1. Enclosure of yards containing private pools. Section 3109.2.1 is hereby added to read:

Section 3109.2.1 Enclosure of yards containing private pools. Every person in possession of land within the City, either as owner, purchaser under contract, lessee, tenant, licensee or otherwise, upon which is situated a private swimming pool or other out-of-doors body of water designed, constructed and used for swimming, dipping or immersion by men, women or children, having a depth in excess of 18 inches, shall maintain in good condition an enclosure to completely separate the private pool from adjoining properties by fencing complying with Health and Safety Code Section 115923 or building walls, or a combination thereof, substantially constructed, not lower than five feet in height above the surface of the ground measured vertically from the outside grade.

Any pool enclosed by a fence or enclosure which does not meet the requirements of this chapter shall be drained immediately and shall not be refilled until such time as the enclosure is brought into compliance with the provisions of this article.

All gates opening through the swimming pool yard enclosure shall be equipped with a self-closing and self-latching device designed to keep such door or gate securely closed at all times when not in actual use. Access gates through the enclosure shall open away from the swimming

pool. The unlocking or unlatching device shall be located not less than five feet above grade or steps at the gate or door measured vertically outside the enclosed areas. This shall include any passage door or gate opening from an accessory building, such as a garage.

Exceptions:

- A. The unlocking or unlatching device may be located on the inside of the enclosure at less than the required five feet in height when not operable from the outside of the enclosure.
- B. Double-gates installed across vehicular access ways shall be self-closing and shall be equipped with a latching device which may be manually operated. Such gates shall be securely closed at all times when not in actual use.

I. Referenced Standards. Chapter 35 of the California Building Code is revised as follows:

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

A. 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.

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 3.6.4.8
- 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

C. 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.

D. 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.

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 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.

2. 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:

A. 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 stations alarm service.

3. NFPA 14, 2016 Edition, Installation of Standpipe and Hose Systems is hereby amended as follows:

- A. Section 7.3.1.1 is hereby 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.

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

- A. 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.

- B. 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 feet (12 m) from the building
  - a. For buildings less than 40 feet (12 m) in height, a post indicator valve shall be permitted to be installed closer than 40 feet (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 feet (12 m) from the building
  3. For buildings less than 40 feet (12 m) in height, a backflow preventer with at least one indicating valve shall be permitted to be installed closer than 40 feet (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

C. 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

D. 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.

E. 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.

F. 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.

## Section 5-9-402 Residential Code

A. Definitions. Section R202 of Chapter 2 of the California Residential Code is hereby amended to add the following definitions to read:

CITY OF IRVINE ELECTRIC VEHICLE CHARGING STATION EXPEDITED/STREAMLINED PERMITTING PROCESS: A ministerial permitting process for electric vehicle charging station installations. For such installations, the process, including permit issuance, may be conducted entirely online utilizing digital forms or may be conducted over the counter at the City's One-Stop Permit Processing Center utilizing printed forms.

CITY OF IRVINE SMALL RESIDENTIAL ROOFTOP SOLAR ENERGY SYSTEM EXPEDITED/STREAMLINED PERMITTING PROCESS: A ministerial permitting process in substantial conformance to the California Solar Permitting Guidebook published by the Governor's Office of Planning and Research, applicable to systems meeting the definition of a *small residential rooftop solar energy system*. For such qualifying systems, the process, including permit issuance, may be conducted entirely online utilizing digital forms or may be conducted over the counter at the City's One-Stop Permit Processing Center utilizing printed forms.

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

SMALL RESIDENTIAL ROOFTOP SOLAR ENERGY SYSTEM: A residential rooftop solar energy system that meets all of the following:

1. A solar system that is no larger than 10 kilowatts alternating current nameplate rating (PV) or 30 kilowatts thermal (solar water heating).
2. A solar energy system that conforms to all applicable state fire, structural, electrical and other building codes as adopted or amended by the City of Irvine and paragraph (3) of subdivision (c) of Section 714 of the Civil Code.
3. A solar energy system that is installed on a single or duplex family dwelling.

4. A solar panel or module array that does not exceed the maximum legal building height.

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.

B. Climatic and Geographic Design Criteria. Table R301.2(1) of Chapter 3 of the California Residential Code is hereby deleted and amended to read:

**TABLE R301.2(1)  
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP	ICE BARRIER UNDERLAYMENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX	MEAN ANNUAL TEMP
	Speed (mph)	Topographic effects		Weathering	Frost line Depth	Termite					
Not applicable	96	No	D	Negligible	Not applicable	Very Heavy	43	Not applicable	See footnote a	0	60

- a. Date of the City of Irvine entry into the National Flood Insurance Program June 21, 1974. The panel numbers of all FIRMs are: 169, 278, 279, 281, 282, 283, 284, 286, 287, 288, 289, 291, 292, 293, 294, 305, 308, 313, 314, 315, 316, 402, 406, 407 and 426.

C. Fuel Modification Requirements for New Construction. Section R301.9 is hereby added to read:

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

D. Fire sprinkler attached garages, and carports with habitable space above. Section R309.6 is hereby modified by deleting and amending the exception to read:

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 residential fire sprinkler system installed in accordance with this section unless a sprinkler system is required in accordance with California Fire Code Section 903.2.8.

E. Automatic Fire Sprinkler Systems. Section R313 is hereby modified as follows:

1. R313.1 Townhouse automatic fire sprinkler systems. The exception to Section R313.1 is hereby deleted and amended to read:

Exception: An automatic sprinkler system shall be installed throughout any existing townhouse building when the floor area of alterations within any two-year period exceeds 50 percent of gross floor area of the existing structure and the building gross floor area exceeds 5,500 square feet.

2. R313.2 One- and two-family dwellings automatic fire sprinkler systems. The exception to Section R313.2 is hereby deleted and amended to read:

Exception: An automatic sprinkler system shall be installed throughout any existing one- or two-family dwelling building when the floor area of alterations within any two-year period exceeds 50 percent of gross floor area of the existing structure and the building gross floor area exceeds 5,500 square feet.

F. Calculation procedure. Section R313.3.6.2.2 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.

G. Site Address. Section R319 is hereby deleted and amended as follows:

R319 Site Address. New and existing buildings shall have approved address numbers as required per Municipal Code Section 5-9-516.

Exception: Legal non-conforming addressing may be maintained. Any replacement addressing shall comply to current provisions to the extent practicable as determined by the Chief Building Official.

H. Section 701A.3 (R337.1.3) Application is hereby revised as follows:

701A.3 (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 shall comply with Chapter 7A.

Additions to and remodel of buildings constructed before 2012 located in areas currently designated as such, shall comply with the provisions of this chapter listed below.

1. Vents 706A.1 General

2. Decking 709A.1 General
3. Accessory Structures 710A.1 General

The provisions shall also apply to additions, remodels, and accessory structures located within:

1. Very High Hazard Severity Zone
2. Wildland-Urban Interface Area as defined in 2019 Chapter 7A section 702A
3. 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.

- I. Fuel Modification Requirements for New Construction. Section R337.1.7 is hereby added to read:

R337.1.7 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.”
  - 3.1 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.
- J. Definitions. Section R337.2 is hereby amended to include the term 100-Foot Buffer Zone and after the term its definition to read as follows:

100-Foot Buffer Zone is that area on private property within 100 feet of a fuel modification or open space area containing native or hazardous vegetation, and which is designated on the currently adopted Wildland Fire Hazard Map for the City of Irvine.

- K. Under-Floor Space. Section R408 is hereby modified as follows:

Section R408.2 Openings for under-floor ventilation is hereby deleted and amended to read:

R408.2 Openings for under-floor ventilation. The minimum net area of ventilation openings shall not be less than one square foot (0.0929 m<sup>2</sup>) for each 150 square feet (14 m<sup>2</sup>) of under-floor area. One ventilation opening shall be within three feet (915 mm) of each corner of the building. Ventilation openings shall be covered for their height and width with any of the following materials provided that the least dimension of the covering shall not exceed 1/8 inch (3.2 mm):

1. Perforated sheet metal plates not less than 0.070 inch (1.8 mm) thick.
2. Expanded sheet metal plates not less than 0.047 inch (1.2 mm) thick.
3. Cast-iron grill or grating.
4. Extruded load-bearing brick vents.
5. Hardware cloth of 0.035 inch (0.89 mm) wire or heavier.
6. Corrosion-resistant wire mesh, with the least dimension not exceeding 1/8 inch (3.2 mm).

Exception: The total area of ventilation openings shall be permitted to be reduced to 1/1,500 of the under-floor area where the ground surface is covered with an approved Class I vapor retarder material and the required openings are placed to provide cross ventilation of the space. The installation of operable louvers shall not be prohibited.

- L. Ventilation required. Section 806.1 is hereby modified by deleting the first paragraph and amending to read:

R806.1 Ventilation required. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of 1/16 inch (1.6 mm) minimum and 1/8 inch (3.2 mm) maximum. Ventilation openings having a least dimension larger than 1/4 inch (3.2 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth or similar non-combustible material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and 1/8 inch (3.2 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7. Required openings shall open directly to the outside air and shall be protected to prevent the entry of birds, rodents, snakes and other similar creatures.

- M. Roof covering materials. Section R902 is hereby modified as follows:

1. Section R902.1 Roof covering materials. The first paragraph is hereby deleted and amended to read:

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. A minimum Class A roofing shall be installed for all new structures, additions and replacement roofing. Class A roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108.

2. Section R902.1 Roof Coverings Material, the exceptions are hereby amended to add item 5 to read:

Where less than 50 percent of the roof covering is replaced within any one-year period, the new roof covering may be Class A, or shall have the same class rating to match the existing, but in no case shall it be less than Class B.

3. Section R902.1.1 Roof coverings within very-high fire severity zones is hereby deleted and amended to read:

R902.1.1 Roof coverings within very-high fire severity zones: reserved.

4. Section R902.1.2 Roof coverings within state responsibility areas is hereby deleted and amended to read:

R902.1.2 Roof coverings within state responsibility areas: reserved.

5. Section R902.1.3 Roof coverings in all other areas is hereby deleted and amended to read:

R902.1.3 Roof coverings in all other areas: reserved.

- N. 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.

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.

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.

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.

- O. Chapter 44 Referenced Standards is revised as follows:

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

- A. 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. Section 8.3.3.1 is hereby revised as follows:

- 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 3.6.4.8
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

- C. 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 permit is issued. 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.

D. 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.

2. 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:

A. 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.

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

A. 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.

B. 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 feet (12 m) from the building
  - a. For buildings less than 40 feet (12 m) in height, a post indicator valve shall be permitted to be installed closer than 40 feet (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 feet (12 m) from the building
  - a. For buildings less than 40 feet (12 m) in height, a backflow preventer with at least one indicating valve shall be permitted to be installed closer than 40 feet (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

C. 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

D. 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.

E. 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.

F. 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.

P. Appendix O Vehicular Gates is deleted and amended to read:

1. Section 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 be approved by the Fire Code Official. Gates or barriers shall be in accordance with the City of Irvine Security Code and the Orange County Fire Authority Guideline B-09 "Fire Master Plans for Commercial and Residential Development."

Section 5-9-403. Green Building Code – Reserved.

Section 5-9-404. Electrical Code.

A. Underground wiring. Section 300.1 Scope of the California Electrical Code is hereby amended to add the following subsection to read:

(D) All outside wiring on private property shall be underground.

Exception: For temporary wiring installed under the provisions of Section 590 and contained within a construction zone.

B. Conductor Material. Section 310.106(B) of the California Electrical Code is hereby deleted and amended to read:

310.106(B) Conductor Material. Conductors in this article shall be aluminum, copper-clad aluminum or copper unless otherwise specified.

Solid aluminum conductors 8, 10, and 12 AWG shall be made of an AA-8000 series electrical grade aluminum alloy conductor material. Stranded aluminum conductors 8 A WG through 1000 kcmil marked as Type RHH,

RHW, XHHW, THW, THHW, THWN, THHN, service-entrance Type SE Style U and SE Style R shall be made of an AA-8000 series electrical grade aluminum alloy conductor material.

**Note:** Aluminum conductors No. 6 and smaller may only be installed with prior approval by the Chief Building Official and shall require continuous inspection during installation by an independent testing agency for proper torquing of connections at their termination point.

Section 5-9-405. Plumbing Code.

- A. Saline waste. Section 602.5 of the California Plumbing Code is hereby added to read:

602.5 Saline waste. Except where permitted by State law, it shall be unlawful to install or replace any plumbing equipment, including any automatic or self-regenerating water softener unit, the operation of which may result in the discharge of saline waste into the facilities of the Irvine Ranch Water District, or the discharge of such wastes that might pollute any surface or underground stream, watercourse, lake or any body of water, including any underground, natural or artificial storage reservoir, or which might impair or contribute to the impairment of the usefulness of such waters for human or animal consumption, or domestic, agricultural, industrial or recreational purposes or for any other useful purpose.

- B. Materials for building water piping. The third paragraph of Section 604.1 of the California Plumbing Code is hereby deleted and amended to read:

Materials for building water piping and building supply piping shall comply with the applicable standards referenced in Table 604.1. Galvanized malleable iron, galvanized wrought iron or galvanized steel are prohibited materials for use underground.

- C. Materials for gas piping. The first paragraph of Section 1208.6 of the California Plumbing Code is hereby deleted and amended to read:

Section 1208.6. Acceptable Piping Materials and Joining Methods. Materials used for piping systems shall comply with the requirements of this chapter or shall be acceptable to the authority having jurisdiction. All pipe used for the installation, extension, alteration or repair of any exterior underground piping system shall be approved polyethylene or other approved non-metallic pipe, tubing and fittings.

Section 5-9-406 Mechanical Code - Reserved.

Section 5-9-407 Swimming Pool Code - Reserved.

Section 5-9-408 Fire Code

- A. Chapter 2 of the California Fire Code, Definitions is adopted in its entirety with the following amendments:

Section 202 General Definitions is hereby revised by adding “OCFA,” and “Spark Arrester” as follows:

1. OCFA: Orange County Fire Authority, fire authority having jurisdiction.
2. SPARK ARRESTER. A listed device constructed of noncombustible material specifically for the purpose of meeting 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.

- B. Chapter 3 of the California Fire Code, 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:

1. Section 304.1.2 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.”

2. 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.

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.

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

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.

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.

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.

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.

4. 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.

5. 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.”

6. 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.

7. 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.

8. 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

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

324.1 Use of 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.

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.

C. Chapter 4 of the California Fire Code, Emergency Planning and Preparedness. Adopt only the sections, subsections, and amendment listed below:

1. 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

2. 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.

D. Chapter 5 of the California Fire Code, Fire Service Features is adopted in its entirety with the following amendments:

1. 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, and Local Responsibility Areas designated as Very High Hazard Fire Severity Zone 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".

2. 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.

Section 510.2 Emergency responder radio coverage in existing buildings is deleted without replacement.

Section 510.3 Permit required is deleted without replacement

- E. Chapter 6 of the California Fire Code, Building Services and Systems is adopted in its entirety without amendments.
- F. Chapter 7 of the California Fire Code, Fire and Smoke Protection Features is adopted in its entirety without amendments.
- G. Chapter 8 of the California Fire Code, Interior Finish, Decorative Materials and Furnishings is adopted in its entirety without amendments.
- H. Adopt Chapter 9 of the California Fire Code, Fire Protection and Life Safety Systems is adopted in its entirety with the following amendments:

1. Section 903.2 Where required. Approved automatic sprinkler systems in buildings and structures shall be provided in the following locations:

1. New buildings or structures. 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 m<sup>2</sup>), or more than two stories in height, regardless of fire areas or allowable area.

Exceptions:

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

Subject to approval by the Fire Code Official, open parking garages in accordance with Section 406.3 of the California Building Code.

1. Alterations to existing non-sprinklered non-residential buildings or structures. Approved automatic sprinkler systems shall be provided throughout existing non-sprinklered buildings and structures when the floor area of alterations within any two-year period exceeds 75 percent of area of the existing structure and the alteration includes structural modifications other than seismic upgrades.
  2. Additions to existing non-sprinklered non-residential buildings or structures. Approved automatic sprinkler systems shall be provided throughout the entire building or structure when the gross floor area of the existing building or structure and addition exceeds 6,000 square feet and the addition is greater than 1,000 square feet in gross floor area.
2. Section 903.2.8. Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all new buildings with a Group R fire area.

Existing Buildings: An automatic sprinkler system shall be installed throughout any existing building when the floor area of alterations within any two year period exceeds 50 percent of gross floor area of the existing structure and the building gross floor area exceeds 5,500 square feet.

Exception 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. The sprinkler system cost shall be calculated at \$1.65 per square foot.

Addition: The addition and existing building shall be equipped with automatic fire sprinkler system when the total square footage of the addition is greater than 550 square feet and the structure with the addition is 5,500 square feet or greater

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.

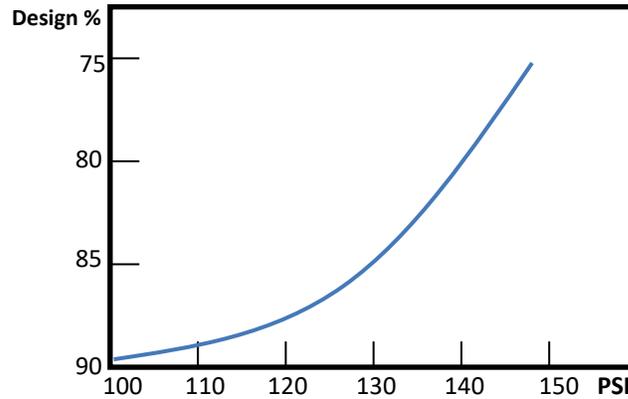
An automatic sprinkler system designed in accordance with Section 903.3.1.3 shall not be utilized in Group R-2.1 or R-4 occupancies.

3. 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**



I. Chapter 10 of the California Fire Code, Means of Egress is adopted in its entirety without amendments.

J. Chapter 11 of the California Fire Code, 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

K. Chapter 12 of the California Fire Code, 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.

L. Chapter 20 Aviation Facilities of the California Fire Code, is adopted in its entirety without amendments.

M. Chapter 21 of the California Fire Code, Dry Cleaning is adopted in its entirety without amendments.

N. Chapter 22 of the California Fire Code, Combustible Dust-Producing Operations is adopted in its entirety without amendments.

O. Chapter 23 of the California Fire Code, Motor Fuel-Dispensing Facilities and Repair Garages is adopted in its entirety without amendments.

P. Chapter 24 of the California Fire Code, Flammable Finishes is adopted in its entirety without amendments.

- Q. Chapter 25 of the California Fire Code, Fruit and Crop Ripening is deleted in its entirety.
- R. Chapter 26 of the California Fire Code, Fumigation and Insecticidal Fogging is deleted in its entirety.
- S. Chapter 27 of the California Fire Code, Semiconductor Fabrication Facilities is adopted in its entirety without amendments
- T. Chapter 28 of the California Fire Code, Lumber Yards and Agro-Industrial, Solid Biomass and Woodworking Facilities is adopted in its entirety with the following amendments:

- 1. 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.

- 2. 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.

- 3. 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.

4. 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.

5. 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.

6. 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.

7. 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.

8. 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.

9. 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.

10. 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).

11. 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.

12. 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.

- U. Chapter 29 of the California Fire Code, Manufacture of Organic Coatings is adopted in its entirety without amendments.
- V. Chapter 30 of the California Fire Code, Industrial Ovens is adopted in its entirety without amendments.
- W. Chapter 31 of the California Fire Code, Temporary Special Event Structures and Other Membrane Structures is adopted in its entirety without amendments.
- X. Chapter 32 of the California Fire Code, High-Piled Combustible Storage is adopted in its entirety without amendments.
- Y. Chapter 33 of the California Fire Code, Fire Safety During Construction and Demolition is adopted in its entirety without amendments.
- Z. Chapter 34 of the California Fire Code, Tire Rebuilding and Tire Storage is adopted in its entirety without amendments.
- AA. Chapter 35 of the California Fire Code, Welding and Other Hot Work is adopted in its entirety without amendments.
- BB. Chapter 36 of the California Fire Code, Marinas is adopted in its entirety without amendments.
- CC. Chapter 37 of the California Fire Code, Combustible Fibers is adopted in its entirety without amendments.
- DD. Chapter 39 of the California Fire Code, Processing and Extraction Facilities is adopted in its entirety without amendments.
- EE. Chapter 48 of the California Fire Code, Motion Picture and Television Production Studio Sound Stages, Approved Production Facilities and Production Locations is adopted in its entirety without amendments.
- FF. Chapter 49 of the California Fire Code, Requirements for Wildland-Urban Interface Fire Areas is adopted in its entirety with the following amendments:

1. 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.”
2. 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.

GG. Chapter 50 of the California Fire Code, Hazardous Materials – General Provisions is adopted in its entirety with the following amendments.

1. 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.

2. 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.

- HH. Chapter 51 of the California Fire Code, Aerosols is adopted in its entirety without amendments.
- II. Chapter 53 of the California Fire Code, Compressed Gases is adopted in its entirety without amendments.
- JJ. Chapter 54 of the California Fire Code, Corrosive materials is adopted in its entirety without amendments.
- KK. Chapter 55 of the California Fire Code, Cryogenic Fluids is adopted in its entirety without amendments.
- LL. Chapter 56 of the California Fire Code, Explosives and Fireworks is adopted in its entirety with the following amendments:

1. 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.

2. 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.

MM. Chapter 57 of the California Fire Code, Flammable and Combustible Liquids. Adopt Chapter 57, in its entirety with the following amendments:

1. Section 5707 is not adopted at this time pending further review by Public Safety. This section will be addressed prior to January 1, 2020.

NN. Chapter 58 of the California Fire Code, Flammable Gases and Flammable Cryogenic Fluids. Adopt Chapter 58, with the exception of Section 5809, in its entirety and with the following amendment:

1. 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.

- OO. Chapter 59 of the California Fire Code, Flammable Solids is adopted in its entirety without amendments.
- PP. Chapter 60 of the California Fire Code, Highly Toxic and Toxic Materials is adopted in its entirety without amendments.
- QQ. Chapter 61 of the California Fire Code, Liquefied Petroleum Gases is adopted in its entirety without amendments.
- RR. Chapter 62 of the California Fire Code, Organic Peroxides is adopted in its entirety without amendments.
- SS. Chapter 63 of the California Fire Code, Oxidizers, Oxidizing Gases, and Oxidizing Cryogenic Fluids is adopted in its entirety without amendments.
- TT. Chapter 64 of the California Fire Code, Pyrophoric Materials is adopted in its entirety without amendments.
- UU. Chapter 65 of the California Fire Code, Pyroxylin (Cellulose Nitrate) Plastics is adopted in its entirety without amendments.
- VV. Chapter 66 of the California Fire Code, Unstable (Reactive) Materials is adopted in its entirety without amendments.
- WW. Chapter 67 of the California Fire Code, Water-Reactive Solids and Liquids is adopted in its entirety without amendments.
- XX. Chapter 80 of the California Fire Code, Referenced Standards is adopted in its entirety with the following amendments:
  - 1. NFPA 13, 2016 Edition, Standard for the Installation of Sprinkler Systems is hereby amended as follows:
    - A. 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.

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 3.6.4.8
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

C. 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.

D. 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.

1. 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.

2. 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:

A. 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.

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

A. 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.

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

1. 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.

B. 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 feet. (12 m) from the building
  - a. For buildings less than 40 feet. (12 m) in height, a post indicator valve shall be permitted to be installed closer than 40 feet. (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 feet. (12 m) from the building
  - a. For buildings less than 40 feet. (12 m) in height, a backflow preventer with at least one indicating valve shall be permitted to be installed closer than 40 feet. (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

1. 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

2. 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.

3. 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.

4. 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.

## YY. Appendices

Appendix A is deleted in its entirety without amendments.

Appendix B is adopted in its entirety with amendments outlined in Guideline B-09.

Appendix BB is adopted in its entirety without amendments.

Appendix C is adopted in its entirety without amendments.

Appendix CC is adopted in its entirety without amendments.

Appendix D is deleted in its entirety without amendments.

Appendix E is deleted in its entirety without amendments.

Appendix F is deleted in its entirety without amendments.

Appendix G is deleted in its entirety without amendments.

Appendix H is deleted-in its entirety without amendments.

Appendix I is deleted in its entirety without amendments.

Appendix J is deleted in its entirety without amendments.

Appendix K is deleted in its entirety without amendments.

Appendix L is deleted in its entirety without amendments.

Appendix M is deleted in its entirety without amendments.

Appendix N is deleted in its entirety without amendments.

Appendix O is deleted in its entirety without amendments.

#### Section 5-9-409 Uniform Housing Code.

- A. Location on Property. Section 501 of the 1997 Uniform Housing Code is hereby deleted and amended to read:

501 Location on Property. All buildings shall be located with respect to property lines and to other buildings on the same property as required by Chapters 6 and 7 of the Building Code and Chapter 3 of the California Residential Code.

- B. Hallways. Section 504.4 of the 1997 Uniform Housing Code is hereby deleted and amended to read:

504.4 Hallways. All public hallways, stairs and other exit ways shall be adequately lighted at all times in accordance with Chapter 10 of the California Building Code.

- C. Water Closet Compartments. Section 505.5 of the 1997 Uniform Housing Code is hereby deleted and amended to read:

505.5 Water Closet Compartments. Walls and floors of water closet compartments, except in dwellings, shall be finished in accordance with Chapter 12 of the Building Code.

- D. Swimming Pools. Section 505.8 is hereby added to the 1997 Uniform Housing Code to read:

505.8 Swimming Pools. All swimming pool and spa water shall be maintained in a clear condition which is free of algae, insects, and debris and in a sanitary condition. The entire floor of the swimming pool or spa shall be clearly visible.

- E. Heating. Section 701.2 of the 1997 Uniform Housing Code is hereby deleted and amended to read:

701.1 Heating. Dwelling units, guest rooms and congregate residences shall be provided with heating facilities capable of maintaining a room temperature of 70° F (21.1° C) at a point three feet (914 mm) above the floor in all habitable rooms. Such facilities shall be installed and maintained in a safe condition and in accordance with the California Building Code, the Residential Code, the Mechanical Code and all other applicable laws. Unvented fuel-burning heaters are not permitted. All heating devices or appliances shall be of an approved type.

- F. General. Section 1001.1 of the 1997 Uniform Housing Code is hereby deleted and amended to read:

1001.1 General. Any building or portion thereof that is determined to be an unsafe building in accordance with Section 5-9-215, or any building or portion thereof, including any dwelling unit, guest room or suite of rooms or the premises on which the same is located, in which there exists any of the conditions referenced in this section to an extent that endangers the life, limb, health, property, safety or welfare of the public or the occupants thereof, shall be deemed and hereby are declared to be substandard buildings.

- G. Hazardous or Insanitary Premises. Section 1001.11 of the 1997 Uniform Housing Code is hereby deleted and amended to read:

1001.11 Hazardous or Insanitary Premises. The accumulation of weeds, vegetation, junk, dead organic matter, debris, garbage, offal, rat harborages, stagnant water, combustible materials and similar materials or conditions on a premise constitutes fire, health or safety hazards that shall be abated in accordance with the procedures specified in Section 5-9-215.

SECTION 6. Chapter 5 of Division 9 of Section 5 of the Irvine Municipal Code is hereby deleted and amended to read as follows:

Sec. 5-9-516. - Special residential building provisions.

1. Section 5-9-516. – Special residential building provisions deleted and amended to read:

The provisions of this section shall apply only to single- and multiple-family dwelling units as well as “Residential, accessory dwelling unit” as defined in the Zoning Ordinance.

2. Item B.3 is deleted and amended to read:

Buildings farther than 75 feet from the center line of the addressed street, or where at least two homes are accessed off the same driveway or common area

walkway, shall, in addition to the illuminated address fixture, provide a wayfinding sign designed as follows:

- a. A sign shall be placed, when possible, on the right side of the driveway or common area roadway or pedestrian entrance, at a height between 24 inches and 42 inches. Landscaping at full maturity or by cars parked on the street shall not obstruct such additional addressing; or,
- b. A pole sign, the same height as a standard City street sign, placed at the entrance to the driveway servicing the homes.
- c. Signs shall have minimum three-inch high numerals, and include the address numbers of each home or the range of numbers may be used when there are multiple buildings instead of listing individual address numbers. When the range of addresses are listed, then it must be noted if all numbers are even or odd based upon existing or potential addressing on the opposite side of the addressed street, with the word "even" or "odd" incorporated into the sign.

3. Item C.5. is deleted and amended to read:

There shall be positioned, at each vehicle entrance of a multiple family dwelling complex with more than two buildings, an illuminated diagrammatic representation of the complex, which depicts the location of the viewer and the unit designations within the complex. The diagram shall be of a size clearly readable from a distance of at least ten feet. It shall be lighted with a minimum maintained 2.0 foot-candles of light on the surface of the sign during the hours of darkness, utilizing a light source, constructed of weather- and vandal-resistant materials, and provided with an uninterruptible A.C. power source or controlled by a photoelectric device. Battery operated units are prohibited. Nothing in this section shall preclude the requirement for circuit protection devices where applicable.

4. Item C.6. is deleted and amended to read:

There shall be positioned, at each common area pedestrian entrance, for the public and tenants, of a multiple-family dwelling complex having buildings that are at least four stories in height, an illuminated diagrammatic representation of the complex, which depicts the location of the viewer and the unit designations within the complex. The diagram shall be of a size clearly readable from a distance of five feet. It shall be lighted with a minimum maintained 2.0 foot-candles of light on the surface of the sign during the hours of darkness, utilizing a light source, constructed of weather- and vandal-resistant materials, and provided with an uninterruptible A.C. power source or controlled by a photoelectric device. Battery operated units are prohibited. Nothing in this section shall preclude the requirement for circuit protection devices where applicable.

5. Item C.7. is deleted and amended to read:

Pedestrian directional signage shall be provided for multifamily complexes and detached condos to guide persons to dwelling units and amenities (pool, recreation areas, active courtyards, offices) within and around buildings, and be posted at all decision-making locations, including: entrances, elevators, stair landings, and walkway intersections. Signage shall include the street name if more than one street name applies to the complex and be so positioned such that text and numerals are mounted between four and six feet in height, clearly illuminated by dedicated or common area lighting, and not obstructed by landscaping at full maturity. Numerals and lettering shall be at least three inches in height using a Sans Serif font with a stroke weight of medium to bold, or an approved equivalent font which is clearly legible.

6. Item C.8. is deleted and amended to read:

A Wayfinding Plan shall be developed indicating the following:

- a. Location and wording of directional signage for vehicles and pedestrians;
- b. Location of building address numbers;
- c. Landscaping details for areas near any signage or address numbers, including elevation showing trees near exterior address numbers;
- d. Unit address numbers on each floor.

The plan shall include design drawings or exhibits that clearly illustrate the intent of the Wayfinding Plan.

7. Item D.3. is deleted and amended to read:

Off street parking spaces, or parking spaces not within the roadway, or motor courts serving at least three homes, shall be illuminated with a minimum maintained 0.50 foot-candles of light on the ground level during the hours of darkness.

8. Item D.4. added to read:

Flag lots with a driveway to at least three homes, only on one side of the driveway, shall be illuminated as follows:

- a. Bollard lights at least 42 inches in height or pole lights with shields, if necessary to block light into adjacent homes, and be illuminated with a minimum maintained 0.25 foot-candles of light on the ground level during the hours of darkness; or

- b. A garage door light fixture, with an LED light emitting a minimum 1200 lumens of light and controlled by a photocell or astronomical clock.

9. Item D.5. is added to read:

Common area sidewalks, not directly adjacent to roadways, shall be illuminated with a minimum maintained 0.25 foot-candles of light on the ground level during the hours of darkness.

10. Item E.8. is deleted and amended to read:

Light fixtures for open parking lots may utilize motion sensing occupancy devices to raise and lower the light levels based upon the presence of vehicles or people. The light level shall not be less than a minimum maintained 0.25 foot-candles of light at ground level when not occupied. The motion sensing device shall be adjusted to sense and activate a light when a vehicle or person is within 24 feet of the fixture.

11. Item E.9. is deleted and amended to read:

A site plan shall be provided showing buildings, parking area, walkways, detailed landscaping with tree legend (if pole lights are used) and shrub legend (if bollards are used), fixture schedule, mounting height, lighting ratio and a point-by-point photometric calculation of the required light levels. If a parking lot is equipped with an occupancy sensor, then a point-by-point photometric calculation is required to show it meets the required minimum level of light. Foot-candles shall be measured at grade on a horizontal plane and conform to a uniformity ratio of six to one (6:1) average/minimum. Landscaping shall not be planted so as to obscure required light levels with light fixtures exceeding eight feet in height installed at least two feet from a tree's canopy at 70 percent maturity.

12. Item E.11. is added to read:

Private streets, alleys, and Fire Department required roadways designed for use only in emergency situations shall be illuminated using the same standards as established for public thoroughfares.

Sec. 5-9-517. - Special nonresidential building provisions.

1. Item K.1. is deleted and amended to read:

All types of exterior doors shall be illuminated, with an exterior light fixture, during the hours of darkness, with a minimum maintained one foot-candle of light, measured within a five-foot radius on each side of the door at ground

level. The light source shall be controlled by a photocell device or a time clock with an astronomic clock feature and capable of operating during a power outage.

2. Item K.9. is deleted and amended to read:

A site plan shall be provided showing buildings, parking area, walkways, detailed landscaping with tree legend (if pole lights are used) and shrub legend (if bollards are used), fixture schedule, mounting height, lighting ratio and a point-by-point photometric calculation of the required light levels. If a parking lot is equipped with an occupancy sensor, then a point-by-point photometric calculation is required to show it meets the required minimum level of light. Foot-candles shall be measured at grade on a horizontal plane and conform to a uniformity ratio of six to one (6:1) average/minimum. Landscaping shall not be planted so as to obscure required light levels with light fixtures exceeding eight feet in height installed at least two feet from a tree's canopy at 70 percent maturity.

3. Item K.10. is added to read:

Private streets, alleys, and Fire Department required roadways designed for use only in emergency situations shall be illuminated using the same standards as established for public thoroughfares.

4. Item L.2. is deleted and amended to read:

Where distance or intervening obstructions impair visibility from the street, addressing shall be mounted on all buildings so as to be visible from drive aisles and walkways internal to the site, and each such address, or an encompassing range of addresses, shall be displayed on monument signs visible from each site entrance from all approaching directions. In such cases, directional wayfinding signs shall be designed per No. 5 below.

5. Item L.3. is deleted and amended to read:

Numerals shall be no less than six inches in height, if located less than 100 feet from the center line of the addressed street or 12 inches in height if placed further than 100 feet from the center line of the addressed street. The numerals shall be in a Sans Serif font with a stroke weight of medium to bold, or an approved equivalent font which is clearly legible, and illuminated during the hours of darkness, with a minimum of two foot-candles of light on the numbers, using a light source provided with an uninterruptible A.C. power source or controlled only by a photoelectric device, which may be the common area site lighting.

6. Item L.4. is deleted and amended to read:

The rear doors and public entrances of all buildings shall have address numbers not less than six inches in height, using a Sans Serif font with a stroke weight of medium to bold, or an approved equivalent font which is clearly legible, and be of a color contrasting to the background to which they are affixed. Method of attachment shall not include the use of two-sided tape or any material not resistant to weather conditions.

7. Item L.5. is deleted and amended to read:

For sites having multiple buildings for which addressing mounted on the building is not clearly visible from the street, or for which drive aisles diverge from a site entrance in a manner such that the direct route to each building is not obvious, vehicle directional signs shall be provided. Vehicle direction signage from the point of site entry to each building entrance shall display building addresses or unit number range, and be located at all turning points along the route to a building entrance. Bottom of the address numbers on the sign copy shall be no less than two feet from ground level and not obstructed by landscaping at full maturity or by parked cars. Numerals shall be at least four inches in height using a Sans Serif font with a stroke weight of medium to bold, or an approved equivalent font which is clearly legible.

8. Item L.7. is added to read:

For sites having more than three separately addressed buildings with a common area sidewalk connecting each building, and the primary building entrances are not visible from the street or parking lot, pedestrian directional signage shall be provided. Signs shall be posted at all decision-making points, including walkway entrances and intersections. Bottom of the address numbers on the sign copy shall be no less than two feet from ground level and not obstructed by landscaping at full maturity. Numerals shall be at least three inches in height using a Sans Serif font with a stroke weight of medium to bold, or an approved equivalent font which is clearly legible.

9. Item L.8. is added to read:

A Wayfinding Plan shall be developed indicating the following:

- a. Location and wording of directional signage for vehicles and pedestrians;
- b. Location of building address numbers;
- c. Landscaping details for areas near any signage or address numbers, including elevation showing trees near exterior address numbers;
- d. Required lighting level on address numbers.

The plan shall include design drawings or exhibits that clearly illustrate the intent of the Wayfinding Plan.

Section. 5-9-518. - Special parking facilities provisions.

1. Item C. is deleted and amended to read:

Signs shall be developed in order to facilitate safe and efficient movement within the parking facility and designed as follows:

1. Signs shall be installed identifying elevators and stairwells with lettering at least ten inches in height, mounted not less than 8' from floor level, and clearly visible within the parking facility.
2. Parking facilities with at least 300 parking spaces per floor shall provide additional signage as follows:
  - a. Floor and section identification signs shall be placed at least every 75 feet and have numerals/letters at least ten inches in height, with section identification at least eight inches in height. The placement, quantity and orientation of these signs should allow vehicle and pedestrian users to maintain an ongoing awareness of their location with the bottom of the sign copy placed at least six feet above the parking surface.
  - b. Wayfinding signs directing persons to elevators and stairwells are required when the elevator or stairwell is greater than 100 feet away from a parking space. Signs shall be highly visible and placed at least six feet above the parking surface. The signs shall have text of at least four inches in height utilizing a Sans Serif font with stroke weight of medium to bold.
  - c. Residential parking garages shall have signage mounted above stairway doors/openings and elevator lobbies, containing the range of addresses or unit numbers serviced by that stairway. The signs shall have text of at least four inches in height utilizing a Sans Serif font with stroke weight of medium to bold.
  - d. A Wayfinding-Directional signage plan, demonstrating compliance with this section, shall be developed as part of the construction plans.

2. Item F. is deleted and amended to read:

Automated Teller Machines are prohibited from being installed inside a parking structure or garage.

3. Item L.8. is deleted and amended to read:

A site plan shall be provided showing buildings' parking area, walkways, detailed landscaping, with tree legend (if pole lights are used) and shrub legend (if bollards are used), fixture schedule, mounting height, lighting ratio and a

point-by-point photometric calculation of the required light levels. If a parking lot is equipped with an occupancy sensor, then a point-by-point photometric calculation is required to show it meets the required minimum level of light. Foot-candles shall be measured at grade on a horizontal plane and conform to a uniformity ratio of six to one (6:1) average/minimum. Landscaping shall not be planted so as to obscure required light levels with light fixtures exceeding eight feet in height installed at least two feet from a tree's canopy at 70 percent maturity.

4. Item N. is added to read:

Residential parking structures and garages shall have a camera surveillance system complying with the following standards:

1. High Definition color cameras shall be installed at all vehicle and pedestrian entrances and be capable of clearly capturing an entire vehicle including license plate and driver. Cameras at pedestrian entrances shall clearly capture the entire person and a recognizable face image.
2. Camera images shall be digitally stored for at least 30 days.
3. A camera surveillance plan noting the type and mounting height of cameras, demonstrating compliance with this section, shall be developed as part of the construction plans.

Sec. 5-9-519. - Emergency access.

1. Item A.1. is deleted and amended to read:

The key switch control shall be installed at a height of 42 inches from finished driveway grade and a minimum of 15 feet from the entry/exit gate, and be located on the driver's side of the road or driveway. The key switch is to be accessible in such a manner as to not require a person to exit their vehicle to reach it; nor to require any back-up movements in order to enter/exit the gate. It may be mounted on a wall or pillar in a parking structure. The key switch may be installed within a visitor telephone/intercom call box if meeting the above criteria. The control housing shall consist of heavy gauge metal, and be vandal- and weather-resistant and be mounted on a substantial structure such as a steel post, concrete, or masonry pedestal.

2. Item B. is deleted and amended to read:

All lockable pedestrian gates or doors to exterior and interior common area walkways, fire department emergency access pathways, and recreation areas/buildings of residential multifamily complexes or tract of homes shall provide for police emergency access utilizing an approved radio controlled

entry system and approved key switch device or approved key vault which shall be installed as follows:

1. Pedestrian gates or doors utilizing an electrically automated type lock shall be provided with an approved radio controlled entry system and a key switch. The key switch shall be affixed with tamper resistant fasteners, mounted next to the access control reader, or installed within a telephone/intercom console, or in a control housing as described in section A.1. above, or in a method approved by the Enforcing Authority. The radio controlled receiver shall be visible in order to determine, when activated, if the signal was received by illuminating a light. More than one gate or door, which is in close proximity to another, may be operated by a single radio controlled entry system, if approved by the police department.

Exceptions:

- a. Recreation buildings are not required to have a radio controlled entry system.
  - b. Interior stairway doors are not required to have a radio controlled entry system.
2. Pedestrian gates or doors utilizing mechanical locks shall be provided with a key vault adjacent to each gate or door, securely attaching it to a fence or wall, mounted five feet above finished grade and within two feet of the locking device. Mechanical locks using combination locks shall have a keyway and key for the key vault.
  3. Pedestrian gates in perimeter community walls or fencing, and at least 100 feet from a vehicle gate, shall utilize a key switch, affixed with tamper resistant fasteners, mounted next to the access control reader, if using an electronically automated type lock; or, if a mechanical lock is used, a key vault, mounted five feet above finished grade and within two feet of the locking device.
  4. Pool gates shall only utilize a key vault, mounted five feet above finished grade and within two feet of the locking device.

3. Item C. is deleted and amended to read:

Nonresidential multi-tenant buildings and hotels with a common area entrances shall provide police emergency access utilizing an approved radio controlled entry system and approved key switch device or approved key vault which shall be installed as follows:

1. All common area, exterior and interior doors, using an electrically automated type lock shall be provided with a key switch device within the building's exterior telephone/intercom call box, adjacent to an access control reader, or in a control housing as described in section A.1 above, or in a method approved by the Enforcing Authority, and located within close proximity and in a visible area near the door, mounted four to five feet above finished grade. Key switches shall be installed next to access control readers and secured utilizing tamper resistant screws. A radio controlled entry system is only required for the main entry doors.
2. Exterior entry common area doors utilizing mechanical door locks shall be provided with a key vault mounted five feet above finished grade and within two feet of the locking device.
3. Hotels shall have a keyswitch at all building entrances with electrically automated type locks accessible to the hotel guests, and mounted adjacent to the access control reader. Doors when equipped with both panic hardware and mechanical locks, shall have a key vault mounted five feet above finished grade and within two feet of the locking device. A radio controlled entry system is not required.

4. Item D. is deleted and amended to read:

Emergency vehicle access gates shall be designed so as to provide access to the padlock from either side of the gate. A key vault shall be installed on the interior and exterior side of the gate, mounted five feet above finished grade and within two feet of the locking device. Owner's padlock shall be used to secure the gate.

5. Item F. is deleted and amended to read:

Key switches containing a label for operating the switch, key vaults, padlocks, and radio controlled entry systems shall be installed per manufacturer's instructions and are clearly identifiable to approaching police personnel in a manner as approved by the police department.

## Section 5-9-520 – Special recreational spaces provisions

1. Item B.12. is deleted and amended to read:

A site plan shall be provided showing buildings, parking area, walkways, detailed landscaping, with tree legend (if pole lights are used) and shrub legend (if bollards are used), fixture schedule, mounting height, lighting ratio and a point-by-point photometric calculation of the required light levels. Foot-candles shall be measured at grade on a horizontal plane and conform to a uniformity ratio of six to one (6:1) average/minimum. Landscaping shall not be planted so as to obscure required light levels with light fixtures exceeding eight feet in height installed at least two feet from a tree's canopy at 70 percent maturity

2. Item C.5. is deleted and amended to read:

Swimming pools shall be secured as follows:

5. Emergency access to locked gates is to be provided through installation of a Knox box key vault which shall contain a mechanical key for the gate. The vault shall be sub-mastered to the Orange County Fire Authority for access by the police department. The mounting location shall be five feet above finish grade and within two feet of the locking device. Pools with double gates shall have the key vault installed as close as possible to the hinge side of one gate. A mechanical key for the gate shall be placed inside the key vault.

Exception: If it is not practical to install the key vault within two feet of locking device due to structural issues, then it may be mounted within four feet of the locking device.

3. Item D.1. is deleted and amended to read:

Plant materials and walls shall take into consideration the need for users of the space to easily view their surroundings as well as police patrols to monitor the area from adjacent streets. Plants should be selected which do not grow beyond a height of 42 inches.

4. Item E.1. is deleted and amended to read:

Parks and private recreation facilities shall have a park identification sign, with address number, street name, park name, and the word "Private" if it is a private park. The sign copy size shall be a minimum height of six inches for the park name, a minimum of four inches for the address number and street name, and a minimum three inches for "private". The sign copy shall be of a color contrasting to the background to which they are affixed. Signs shall be highly

visible and placed within 100 feet of the centerline of the addressed street. Bottom line of the sign copy shall be no less than two feet from ground level and not obstructed by landscaping at full maturity or by parked cars. Public Park identification signs also must meet the design criteria adopted in the City's Park/Public Facility Design Standards.

5. Item H. is added to read:

Dog Parks

Enclosed spaces designed for dogs to be off-leash shall conform to the following standards:

1. The dog park shall be located in a highly visible area.
2. Perimeter of the dog park shall have a fence, at least five feet in height, with no more than 40% of it being of solid construction. Fencing shall be tubular steel with openings between pickets not more than three inches in width, and designed to prevent dogs from crawling under it.
3. Gates shall be a double gated entry system where one gate must be closed before the other can be opened.
4. Access to the dog park is to be controlled by an access control system if park is part of a residential complex.
5. Provide waste bag station and trash container.
6. All surfaces of the park shall be illuminated with a minimum maintained 0.5 foot-candles of light at ground level, during the hours of operation, including one hour thereafter.
  - a. The light source utilized to comply with this section shall have a rated average bulb life of not less than 12,000 hours.
  - b. A site plan shall be provided showing the park, buildings, parking area, walkways, detailed landscaping with tree legend (if pole lights are used) and shrub legend (if bollards are used), fixture schedule, mounting height, lighting ratio and a point-by-point photometric calculation of the required light levels. If the park is equipped with an occupancy sensor, then a point-by-point photometric calculation is required to show it meets the required minimum level of light. Foot-candles shall be measured at grade on a horizontal plane and conform to a uniformity ratio of six to one (6:1) average/minimum. Landscaping shall not be planted so as to obscure required light levels with light fixtures exceeding eight feet in height installed at least two feet from a tree's canopy at 70 percent maturity.

6. Item I. is added to read:

Privately Owned Parks Publically Accessible

1. Privately owned parks, open to the public as deemed by the City, shall develop a security operations plan to monitor and control the park. Plan shall include addressing the following issues: noise, loitering, hours of operation, violation of owner's rules and regulations, and the on-site title(s) of persons responsible for enforcement of the security operations plan.
2. Park identification signs shall conform to Section 5-9-520.E, with the following change in type of park identified:  

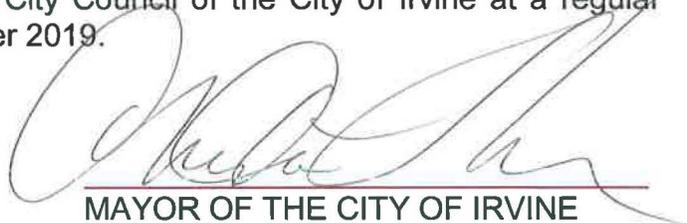
Private – Open to Public”
2. Signs shall be installed at all pedestrian walkway entrances to the park which state:  

“Park is privately owned, open for public use, controlled and maintained by the property owner.”

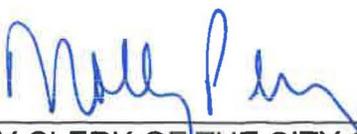
SECTION 7. If any section, subsection, subdivision, sentence, clause, phrase or portion of this Ordinance is, for any reason, held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have adopted this Ordinance and each section, subsection, subdivision, sentence, clause, phrase or portion thereof, irrespective of the fact that any one or more sections, subsection, subdivision, sentence, clause, phrase or portions thereof be declared invalid or unconstitutional.

SECTION 8. The City Clerk shall certify to the passage of this Ordinance and this Ordinance shall be published as required by law and shall take effect as provided by law.

PASSED AND ADOPTED by the City Council of the City of Irvine at a regular meeting held on the 12th day of November 2019.

  
MAYOR OF THE CITY OF IRVINE

ATTEST:

  
CITY CLERK OF THE CITY OF IRVINE

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) SS  
CITY OF IRVINE )

I, MOLLY M. PERRY, City Clerk of the City of Irvine, HEREBY DO CERTIFY that the foregoing ordinance was introduced for first reading on the 22<sup>nd</sup> day of October, 2019 and duly adopted at a regular meeting of the City Council of the City of Irvine held on the 12<sup>th</sup> day of November, 2019.

AYES:	5	COUNCILMEMBERS:	Carroll, Fox, Khan, Kuo, and Shea
NOES:	0	COUNCILMEMBERS:	None
ABSENT:	0	COUNCILMEMBERS:	None
ABSTAIN:	0	COUNCILMEMBERS:	None

  
CITY CLERK OF THE CITY OF IRVINE