

CITY COUNCIL ORDINANCE NO. 16-07

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 AND CHAPTER 9 OF DIVISION 7 OF SECTION 6 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, Section 5 of Division 9 of the Irvine Municipal Code is hereby incorporated by reference.

SECTION 2. Chapter 1 of Section 5 of Division 9 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, 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, 2016 edition with errata (Title 24, Part 2, California Code of Regulations), based on the 2015 International Building Code as published by the International Code Council.
2. California Residential Code (excluding Chapter 1, Division II), 2016 edition with errata (Title 24, Part 2.5, California Code of Regulations), including Appendix O, based on the 2015 International Residential Code as published by the International Code Council.
3. California Green Building Standards Code, 2016 edition with errata (Title 24, Part 11, California Code of Regulations) as published by the International Code Council.
4. California Electrical Code, 2016 edition with errata (Title 24, Part 3, California Code of Regulations), based on the 2014 National Electrical Code, as published by the National Fire Protection Association.

5. California Mechanical Code, 2016 edition with errata (Title 24, Part 4, California Code of Regulations), based on the 2015 Uniform Mechanical Code, including Appendix Chapter D, as published by the International Association of Plumbing and Mechanical Officials.
6. California Plumbing Code, 2016 edition with errata (Title 24, Part 5, California Code of Regulations), based on the 2015 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, 2016 edition with errata (Title 24, Part 6, California Code of Regulations).
8. California Existing Building Code, 2016 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), 2016 edition with errata (Title 24, Part 9, California Code of Regulations), the 2015 International Fire Code published by the International Code Council and the whole thereof, including Appendix B, Appendix BB, Appendix C, Appendix CC and Appendix H.

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 Section 5 of Division 9 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).
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 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 180 days 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:

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|---|-----------|
| 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.

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 110.3.11.

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 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.

110.3.9 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.

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

110.3.11 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 Use and 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 Section 5 of Division 9 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, 2016 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 109.4 of Chapter 1, Division II of the California Fire Code is hereby amended to read:

Section 109.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any issued orders or notices, or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the Fire Code Official, or of a permit or certificate used under provisions of this code, shall result in penalties assessed as prescribed in the OCFA Prevention Field Services adopted fee schedule. Each day that a violation continues after notice has been served shall be deemed a separate offense.

- B. Infractions and misdemeanors. Section 109.4.1 is hereby added to Chapter 1, Division II of the California Fire Code to read:

Section 109.4.1 Infractions and misdemeanors. 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 to do so by the chief or a duly authorized representative are guilty of a misdemeanor.

SECTION 5. Chapter 4, Amendments to Technical Codes, of Section 5 of Division 9 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 to 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 amended to read:

701A.3 Application. New buildings, structures, additions and alterations pursuant to Section 701A.3.1.1 located in any Very High Fire Hazard Severity Zone, or within a 100-Foot Buffer Zone so designated on the currently adopted Wildland Fire Hazard Map for the City of Irvine constructed after the application date, shall comply with the provisions of this chapter.

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 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.
4. Additions to and remodels of buildings shall comply with the provisions of this chapter, or an approved Fire Protection Plan.
5. Within a 100-Foot Buffer Zone, only decks, porches, balconies, exterior stairs and patio covers need to comply with the specific provisions contained in Section 701A3.2.

2. Section 701A.3.1.1 Existing Buildings is hereby added to read:

701A.3.1.1 Existing Buildings. When an existing building undergoes alterations or additions, only those construction elements altered or added to the original structure must be made to comply with this chapter.

3. Section 701A.3.2 Construction Features for decks, porches, balconies, exterior stairs and patio covers within a 100-Foot Buffer Zone is hereby added to read:

701A.3.2 Construction Features for decks, porches, balconies, exterior stairs and patio covers within a designated 100-Foot Buffer Zone.

701A.3.2.1 Decks, porches, balconies and stairs within a designated 100-Foot Buffer Zone shall comply with the provisions of Section 709A when the walking surface of a single porch, deck or balcony is greater than 100 square feet, or 120 square feet when connected to stairs.

701A.3.2.2 Patio covers shall be of non-combustible or ignition-resistant materials.

Exception: When the construction features meet all of the following:

- A. Columns consist of lumber having 4 x 4, minimum, nominal dimensions.
- B. Horizontal beams consist of lumber having 4 x 6, minimum, nominal dimensions.
- C. Roof shall be open lattice with framing having a minimum of two inches of clear spacing or may have solid roofing having a Class A minimum rating.

4. 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 m²), 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 406.3 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.

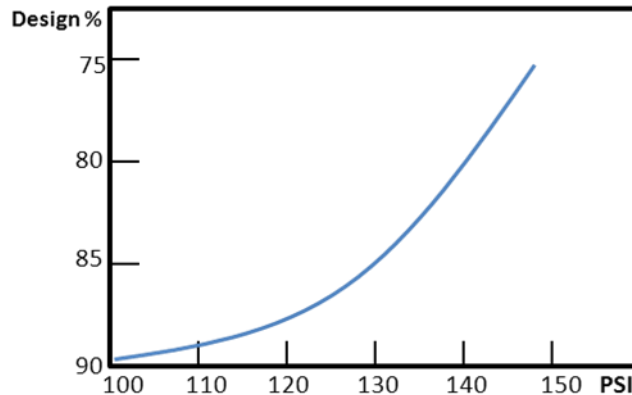
An automatic sprinkler system shall be installed throughout any existing building when the floor area of alterations within any two year period exceeds 50 percent of gross floor area of the existing structure and the building gross floor area exceeds 5,500 square feet.

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 1203 of Chapter 12 of the California Building Code is hereby modified as follows:

1. Section 1203.2.1 Openings into attic is hereby deleted and amended to read:

1203.2.1 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. 1203.4.1 Openings for under-floor ventilation is hereby deleted and amended to read:

1203.4.1 Openings for under-floor ventilation. The minimum net area of ventilation openings shall not be less than one square foot for each 150 square feet (0.67 m² for each 100 m²) of crawl-space area. 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 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)

1203.4.1.1 [SPCB] Openings for under-floor ventilation shall be not less than 1 1/2 square feet (0.135 m²) 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. Private swimming pools. Section 3109.4.4 of the California Building Code is hereby amended to add as follows:

1. Definitions. Section 3109.4.4.1 is hereby amended to add the following definition to read:

PRIVATE POOL is any constructed pool, permanent or portable, which is intended for noncommercial use as a swimming pool by not more than three owner families and their guests.

2. Enclosure of yards containing private pools. Section 3109.4.4.2.1 is hereby added to read:

Section 3109.4.4.2.1 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 3109.4.4.3 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, Installation of Sprinkler Systems is hereby amended as follows:
 - A. Section 6.8.3 is hereby deleted and amended to read:

6.8.3 Fire department connections (FDC) shall be of an approved type. The FDC shall contain a minimum of two 2½-inch inlets. The location shall be approved and be no more than 150 feet from a public hydrant. The FDC may be located within 150 feet of a private fire hydrant when approved by the Fire Code Official. The size of piping and the number of inlets shall be approved by the Fire Code Official. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2½-inch inlets shall be provided.
 - B. Section 8.3.3.1 is hereby deleted and amended to read:

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 Section 3.6.4.7
2. Residential sprinklers in accordance with the requirements of Section 8.4.5
3. Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
4. Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

C. Section 8.17.1.1.1 is hereby added as follows:

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

D. Section 11.1.1.2 is hereby added as follows:

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

upgrade the system to the required density for the new occupancy.

E. Section 11.2.3.1.1.1 is hereby added as follows:

11.2.3.1.1.1 The available water supply for fire sprinkler system design shall be determined by one of the following methods, as approved by the Fire Code Official:

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

F. Section 23.2.1.1 is hereby deleted and amended to read:

Section 23.2.1.1 Where a waterflow test is used for the purposes of system design, the test shall be conducted no more than six months prior to working plan submittal unless otherwise approved by the authority having jurisdiction.

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

A. Section 6.16.1 is hereby deleted and amended to read:

6.16.1 A local water-flow alarms shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies containing less than the number of stories, dwelling units or occupant load specified in Section 907.2.8 of the 2016 California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be a minimum of 15 dBA above the average ambient sound or a minimum of 75 dBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

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

3. NFPA 13D 2016 Edition Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes is hereby amended as follows:

- A. Section 4.1.3 is hereby added as follows:

4.1.3 Stock of Spare Sprinklers

4.1.3.1 A supply of at least two sprinklers for each type shall be maintained on the premises so that any sprinklers that have not operated or been damaged in any way can be promptly replaced.

4.1.3.2 The sprinklers shall correspond to the types and temperature ratings of the sprinklers in the property.

4.1.3.3 The sprinklers shall be kept in a cabinet located where the temperature to which they are subjected will at no time exceed 100° F (38° C).

4.1.3.4 A special sprinkler wrench shall be provided and kept in the cabinet to be used in the removal and installation of sprinklers. One sprinkler wrench shall be provided for each type of sprinkler installed.

- B. Section 7.1.2 is hereby deleted and amended to read:

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

- C. Section 7.6 is hereby deleted and amended to read:

7.6 Alarms Exterior alarm indicating device shall be listed for outside service and audible from the street from which the house is addressed. Exterior audible devices shall be placed on the front or side of the structure and the location subject to final approval by the Fire Code Official. Additional interior alarm devices shall be required to provide 55 dBA or greater so as to be 15 dBA above ambient. Sound levels in all sleeping areas with all intervening doors closed shall be a minimum of 15 dBA above the average ambient sound level, but not less than 75 dBA. Audible devices shall be powered from an uninterruptible

circuit (except for over-current protection) serving normally operated appliances in the residence.

Exceptions:

1. When an approved water flow monitoring system is installed, interior audible devices may be powered through the fire alarm control panel.
 2. When smoke detectors specified under CBC Section 310.9 are used to sound an alarm upon waterflow switch activation.
4. NFPA 14, 2013 Edition, Installation of Standpipe and Hose Systems is hereby amended as follows:
- A. Section 7.3.1.1 is hereby deleted and amended to read:

7.3.1.1 Hose Connection Height 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 three feet or more than five feet above the finished floor.
5. NFPA 24, 2016 Edition, Installation of Private Fire Service Mains and Their Appurtenances are hereby amended as follows:
- A. Section 6.2.1.1 is hereby added as follows:

6.2.1.1 The closest upstream indicating valve to the riser shall be painted OSHA red.
 - B. Section 6.2.11 (5) is hereby deleted.
 - C. Section 6.2.11 (6) is hereby deleted and amended to read:

6.2.11 (5) Control valves in a fire-rated room accessible from the exterior.
 - D. Section 6.2.11 (7) is hereby deleted.
 - E. Section 6.3.3 is hereby added as follows:

Section 6.3.3 All post indicator valves controlling fire suppression water supplies shall be painted OSHA red.
 - F. Section 10.1.6.3 is hereby added as follows:

10.1.6.3 All ferrous pipes shall be coated and wrapped. Joints shall be coated and wrapped after assembly. All fittings shall be protected with a loose 8-mil polyethylene tube. The ends of the tube shall extend past the joint by a minimum of 12 inches and be sealed with two-inch wide tape approved for underground use. Galvanizing does not meet the requirements of this section.

Exception: 316 Stainless Steel pipe and fittings.

G. Section 10.3.5.2 is hereby deleted and amended to read:

10.3.5.2 All bolted joint accessories shall be cleaned and thoroughly coated with asphalt or other corrosion-retarding material, prior to poly-tube and after installation.

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

H. Section 10.3.5.3 is hereby added as follows:

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

I. Section 10.6.3.1 is hereby deleted and amended to read:

10.6.3.1 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 line 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 Section 10.6.2.

J. Section 10.6.4 is hereby deleted and amended to read:

10.6.4 Pipe Joints shall not be located under foundation footings. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints.

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	85	No	D ₂ or E	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:

R301.10 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. Application. Section R337.1.3 is hereby deleted and amended to read:

R337.1.3 Application. New buildings, structures, additions and alterations pursuant to R337.1.3.1.1 located in any Very High Fire Hazard Severity Zone, or within a 100-Foot Buffer Zone so designated on the currently adopted Wildland Fire Hazard Map for the City of Irvine constructed after the application date shall comply with the provisions of this chapter.

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 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.
4. Additions to and remodels of buildings shall comply with the provisions of this chapter or an approved Fire Protection Plan.
5. Within a 100-Foot Buffer Zone, only decks, porches, balconies, exterior stairs and patio covers need comply with the specific provisions contained in Section R337.1.3.2.

I. Existing Buildings. Section R337.1.3.1.1 is hereby added to read:

Section R337.1.3.1.1 Existing Buildings. When an existing building undergoes alterations or additions, only those construction elements altered or added to the original structure must be made to comply with this chapter.

J. Construction Features for decks, porches, balconies, exterior stairs and patio covers within a designated 100-Foot Buffer Zone. Section R337.1.3.2 is hereby added to read:

Section R337.1.3.2 Construction Features for decks, porches, balconies, exterior stairs and patio covers within a designated 100-Foot Buffer Zone.

R337.1.3.2.1 Decks, porches, balconies and stairs within a designated 100-Foot Buffer Zone shall comply with the provisions of Section R337.9 when the walking surface of a single porch, deck or balcony is greater than 100 square feet or 120 square feet when connected to stairs.

R337.1.3.2.2 Patio covers shall be of non-combustible or ignition-resistant materials.

Exception: When the construction features meet all of the following:

- A. Columns consist of lumber having 4x4, minimum, nominal dimensions.
- B. Horizontal beams consist of lumber having 4x6, minimum, nominal dimensions.
- C. Roof shall be open lattice with framing having a minimum of two inches of clear spacing, or may have solid roofing having a Class A minimum rating.

K. Fuel Modification Requirements for New Construction. Section R337.1.6 is hereby added to read:

R337.1.6 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.
- L. 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.

- M. 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 m²) for each 150 square feet (14 m²) 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.

- N. 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.

- O. 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.

- P. 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.

Q. 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 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-inch 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 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 Section 3.6.4.7
2. Residential sprinklers in accordance with the requirements of Section 8.4.5
3. Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
4. 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 multiplying the result by 0.433;
2. Use a maximum of 40 psi, if available;
3. Utilize the Orange County Fire Authority water-flow test form/directions to document a flow test conducted by the local water agency or a professional engineer licensed in the State of California.

2. NFPA 13D 2016 Edition 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 system piping shall not have a separate control valve unless supervised by a central station, proprietary or remote station alarm service.

R. 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 1208.5 of the California Plumbing Code is hereby deleted and amended to read:

Section 1208.5. 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. Definitions. Section 202 of Chapter 2 of the California Fire Code is hereby amended to add or modify the following definitions to read:

1. OCFA: Orange County Fire Authority, fire authority having jurisdiction.
2. SKY LANTERN. An airborne lantern typically made of paper, Mylar, or other lightweight material with a wood, plastic, or metal frame containing a candle, fuel cell, or other heat source that provides buoyancy.
3. 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. General Requirements. Chapter 3 of the California Fire Code is hereby amended as follows:

1. Vegetation. Section 304.1.2 is hereby deleted and amended to read as follows:

304.1.2 Vegetation. Type, amount, or arrangement of weeds, grass, vines or other growth that is capable of being ignited and endangering property and needing to comply with OCFA Guidelines, shall be cut down, thinned, and removed by the owner or occupant of the premises in accordance with OCFA Guideline C-05 "Vegetation Management Guideline—Technical Design for New Construction, Fuel Modification Plans, and Maintenance Program. Vegetation clearance requirement in urban-wildland interface areas shall be in accordance with Chapter 49.

2. Ignition Sources. Section 305 is hereby amended by adding the following sections:

A. 305.6 Hazardous conditions. Outdoor fires are not allowed when predicted sustained winds exceed 8 MPH during periods when relative humidity is less than 25 percent, 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.

B. 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. Open Burning, Recreational Fires and Portable Outdoor Fireplaces Section 307, is hereby modified by adding the following sections:

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 shall comply with this section.

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

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 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 in accordance with Section 305.5 as defined in Section 202.

307.6.2 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 the California Building Code. 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. 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.

307.6.2.1 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 Wildland-Urban Interface Areas (WUI) or in locations where conditions could cause the spread of fire to the WRA or WUI, unless determined by the Fire Code Official that the location or design of the device should reasonably prevent the start of a wildfire.

4. Powered Industrial Trucks and Equipment. Section 309, is hereby amended by adding the following section:

309.2.1 Indoor charging of electric carts/cars. Indoor charging of electric carts/cars where the combined volume of all battery electrolyte exceeds 50 gallons shall comply with following:

1. Spill control and neutralization shall be provided and comply with Section 608.5
2. Room ventilation shall be provided and comply with Section 608.6.1
3. Signage shall be provided and comply with Section 608.7.1
4. Smoke detection shall be provided and comply with Section 608.9

5. Fuel Modification Requirements for New Construction. Section 320 is hereby added as follows:

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

6. Clearance of brush or vegetation growth from roadways. Section 321 is hereby added as follows:

Section 321 Clearance of brush or vegetation growth from roadways. The Fire Code Official is authorized to cause areas within ten 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. Unusual Circumstances. Section 322 is hereby added as follows:

Section 322 Unusual Circumstances. The Fire Code Official may suspend enforcement of the vegetation management requirements and require reasonable alternative measures designed to advance the purposes 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 of Sections 15, 16 or 17 of this appendix undesirable or impractical.

8. Use of Equipment. Section 323 is hereby added as follows:

Section 323 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.

323.1 Spark arresters. Spark arresters shall comply with Section 202. When affixed to the exhaust system of engines or vehicles subject to Section 323, spark arresters 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.

9. Sky Lanterns or similar devices. Section 324 is hereby added to read:

Section 324 Sky Lanterns or similar devices. The ignition and/or launching of a Sky Lantern or similar device are prohibited.

Exceptions:

Upon approval of the Fire Code Official, sky lanterns may be used as necessary for religious or cultural ceremonies provided that adequate safeguards have been taken as approved by the Fire Code Official. Sky Lanterns must be tethered in a safe manner to prevent them from leaving the area and must be constantly attended until extinguished.

C. Emergency Planning and Preparedness. Chapter 4 of the California Fire Code is hereby amended to:

1. Delete without replacement all provisions except for sections 401, 401.3.4, 401.9, 402, 403.2, 404.5 through 404.6.6, and 407.

2. Delete Section 407.5 Hazardous Materials Inventory Statement and amend as follows:

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

- D. Fire Service Features. Chapter 5 of the California Fire Code is hereby amended as follows:

1. Section 501.1 Scope is hereby deleted and amended to read:

501.1 Scope. Fire service features for buildings, structures and premises shall comply with this chapter and, where required by the Fire Code Official, with OCFA Guideline B-09, "Fire Master Plan for Commercial & Residential Development." Fire service features for buildings, structures and premises located in State Responsibility Areas shall also comply with OCFA Guideline B-09a, "Fire Safe Development in State Responsibility Areas."

2. Section 505.1 Address Identification is hereby deleted and amended to read:

505.1 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.

3. Section 510.1 Emergency responder radio coverage is hereby deleted and amended to read:

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 of the jurisdiction 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 local authority having jurisdiction's ordinance and this code.

Exception: 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 that facility, the Fire Code Official shall have the authority to accept an automatically activated emergency radio coverage system.

This section shall not apply to the following:

1. Existing buildings or structures.
 2. Elevators.
 3. Structures that are three stories or less without subterranean storage or parking and that do not exceed 50,000 square feet on any single story.
 4. Wood-constructed residential structures four stories or less without subterranean storage or parking that are not built integral to an above ground multi-story parking structure.
 5. Should construction that is three stories or less that does not exceed 50,000 square feet on any single story include subterranean storage or parking, then this ordinance shall apply only to the subterranean areas.
4. Section 510.2 Emergency responder radio coverage in existing buildings is deleted without replacement:
 5. Section 510.4.2.2 Technical Criteria is hereby deleted and amended to read:

510.4.2.2 Technical criteria. The Fire Code Official shall maintain a document providing the specific technical information and requirements for the emergency responder radio coverage system. This document shall contain, but not be limited to, the various frequencies required, the location of radio sites, effective radiated power of radio sites, and other supporting technical information.

1. The frequency range supported from the 800 MHz Countywide Communications System shall be 851 - 869 MHz (base transmitter frequencies).
2. The frequency range supported to the 800 MHz Countywide Communications System shall be 806 - 824 MHz (radio field transmit frequencies).
3. A public safety radio amplification system shall include filters to reject frequencies below 851 MHz and frequencies above 869 MHz by a minimum of 35dB.

4. All system components must be 100 percent compatible with analog and digital modulations after installation without adjustments or modifications. The systems must be capable of encompassing the frequencies stated herein and capable of future modifications to a frequency range subsequently established by the jurisdiction.
5. Active devices shall have a minimum of -50 dB 3rd order intermodulation protection.
6. All active in-building coverage devices shall be FCC Part 90 Type Certified

6. Section 510.5.1 Approval prior to installation is hereby deleted and amended to read:

510.5.1 Approval prior to installation. Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC shall not be installed without prior plan submittal, coordination and approval from Orange County Sherriff Department Communications Division and a copy of the approved plan provided to the Fire and Building Code Officials.

7. Section 510.5.2 Minimum qualification of personnel is hereby deleted and amended to read:

510.5.2 Minimum qualifications of personnel. The minimum qualifications of the system designer and lead installation personnel shall include both of the following:

1. A valid FCC-issued general radio operator's license.
2. Certification of in-building system training issued by a nationally recognized organization, school or a certificate issued by the manufacturer of the equipment being installed.

8. Item 7 of Section 510.5.3 Acceptance test procedure is hereby deleted and amended to read:

7. As part of the installation a spectrum analyzer or other suitable test equipment shall be utilized to ensure spurious oscillations are not being generated by the subject signal booster. This test shall be conducted at the time of installation and subsequent annual inspections by the FCC licensed technician hired by the property owner and an Orange County Sherriff Department Communications Division FCC-certified technician.

9. Section 510.6.1 Testing and proof of compliance is hereby deleted and amended to read:

510.6.1 Testing and proof of compliance. The owner of the building or their representative shall have the emergency responder radio coverage system inspected and tested annually or where structural changes occur including additions or remodels that could materially change the original field performance tests. Testing shall consist of the following:

1. In-building system components shall be tested to determine general functional operability.
2. Signal boosters shall be tested to ensure that the gain is the same as it was upon initial installation and acceptance.
3. Backup batteries and power supplies shall be tested under load of a period of one hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined.
4. Other active components shall be checked to verify operation within the manufacturer's specifications.
5. If noncompliance is found, the FCC licensed technician will assess improvements necessary and provide such information to Orange County Sherriff Department Communications Division and the Fire and Building Code Officials.
6. At the conclusion of the testing, a certification report, which shall verify compliance with Section 510.5.3, shall be submitted to Orange County Sherriff Department Communications Division Communications and the Fire and Building Code Officials.

- E. Fire Protection Systems. Chapter 9 of the California Fire Code is hereby amended as follows:

1. 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 when one of the following conditions exists:

1. New buildings: Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.19, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area, as defined in the CBC, exceeds

5,000 square feet (465 m²), 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. 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 the existing non-sprinklered buildings and structures when the gross floor area of alterations within any two-year period exceeds 75 percent of the 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 the 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 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.

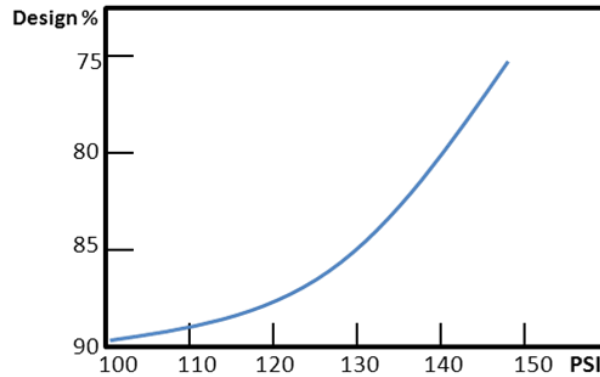
An automatic sprinkler system shall be installed throughout any existing building when the floor area of the alteration within any two-year period exceeds 50 percent of area of the existing structure and the building area exceeds 5,500 square feet.

3. Section 903.3.5.3 Hydraulically calculated systems are 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**



F. Chapter 11 of the California Fire Code is hereby amended to delete without replacement all provisions except for Sections 1103.7, 1103.7.3, 1103.7.3.1, 1103.7.8 through 1103.7.8.2, 1103.7.9 through 1103.7.9.10, and 1103.8 through 1103.8.5.3.

G. Chapter 25 Fruit and Crop Ripening is deleted in its entirety.

H. Chapter 26 Fumigation and Insecticidal Fogging is deleted in its entirety.

I. Lumber Yards and Woodworking Facilities. Chapter 28 of the California Fire Code is hereby amended as follows:

1. Section 2801.2, Permit, is hereby deleted and amended to read:

Section 2801.2 Permit. Permits shall be required as set forth in Section 105.6 and Section 105.6.29.

2. Section 2808.2, Storage site, is hereby deleted and amended to read:

Section 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 Fire Code Official before transferring products to the site.

3. Section 2808.3, Size of piles, is hereby amended to modify the first sentence as follows:

Section 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. Factors 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 deleted and amended to read:

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

5. Section 2808.7, Pile fire protection, is hereby amended by adding the following sentence to the end of the paragraph:

Oscillating sprinklers with a sufficient projectile reach are required to maintain a 40 percent to 60 percent moisture content and wet down burning/smoldering areas.

6. Section 2808.9, Material handling equipment, is hereby amended by adding the following sentence at the beginning of the section:

All material handling equipment operated by an internal combustion engine shall be provided and maintained with an approved spark arrester.

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.

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

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.

8. 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).

9. 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.

10. 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 an emergency situation.

J. Requirements for Wildland-Urban Interface Fire Areas. Chapter 49 of the California Fire Code is hereby amended as follows:

1. Section 4906.3, Vegetation, is hereby revised by adding Section “(5)” as follows:
 - (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 concurrent with the submittal for approval of any tentative map.
2. Final fuel modification plans shall be submitted to and approved by the Fire Code Official prior to the issuance of a grading permit.
3. The fuel modification plans shall meet the criteria set forth in the Fuel Modification Section of the Orange County Fire Authority Fuel Modification Plans Design 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 for perpetuity.

4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approval by 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.

K. Hazardous Materials – General Provisions. Chapter 50 of the California Fire Code is hereby amended as follows:

1. Section 5001.5.2, Hazardous Materials Inventory Statement (HMIS), is amended by deleting and amending the first paragraph to read:

Section 5001.5.2 Hazardous Materials Inventory Statement (HMIS). When 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:

2. Section 5003.1.1.1, Extremely Hazardous Substances, is hereby added as follows:

Section 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 seq.*) in a residential zoned or any residentially developed property.

L. Explosives and Fireworks Chapter 56 of the California Fire Code is hereby amended as follows:

1. Section 5508.2, Firing, is hereby added to read:

5508.2 Firing. All fireworks displays shall be electrically fired.

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

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.

M. Reference Standards, Chapter 80, is revised as follows:

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

Section 6.7.3 is hereby revised as follows:

6.7.3 Fire department connections (FDC) shall be of an approved type. The 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 inch 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 500 gpm (including inside hose stream demand) or a standpipe system is included, four 2½ inch inlets shall be provided.

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 first submitted. Sprinklers in light hazard occupancies shall be one of the following:

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

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

Section 11.1.1.1 is hereby added as follows:

11.1.1.1 When fire sprinkler systems are required in buildings of undetermined use other than warehouses, they shall be designed and installed to have a fire sprinkler density of not less than that required for an Ordinary Hazard Group 2 use, with no reduction(s) in density or design area. Warehouse fire sprinkler systems shall be designed to Figure 16.2.1.3.2(d) curve "G".

Use is considered undetermined if a specific tenant/occupant is not identified at the time the sprinkler plan is submitted. Where a subsequent 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.

Section 11.2.3.1.1.1 is hereby added as follows:

11.2.3.1.1.1 The available water supply for fire sprinkler system design shall be determined by one of the following methods, as approved by the Fire Code Official:

1. Subtract the project site elevation from the low water level for the appropriate pressure zone and multiply the result by 0.433;
 2. Use a maximum of 40 psi, if available;
 3. Utilize the Orange County Fire Authority water flow test form/directions to document a flow test conducted by the local water agency or an approved third party licensed in the State of California.
2. NFPA 13D, 2016 Edition, Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes is hereby amended as follows:

Section 7.1.2 is hereby revised as follows:

7.1.2 The system piping shall not have a separate control valve 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:

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 three feet or more than five feet above the finished floor.

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

Section 6.2.8.1 is hereby added as follows:

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

Exceptions:

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

Section 6.2.9 is hereby amended as follows:

Section 6.2.9 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.

Section 10.1.5 is hereby added as follows:

10.1.5 All ferrous pipes 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 two inch wide tape approved for underground use. Galvanizing does not meet the requirements of this section.

Exception: 304 or 316 Stainless Steel pipe fittings.

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: 304 or 316 Stainless Steel pipe and fittings.

Section 10.4.1.1.1 is hereby added as follows:

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

Section 10.4.3.2 is hereby deleted and amended to read:

10.4.3.2 Where fire service mains enter the building adjacent to the foundation, the pipe may run under a building to a maximum of 24 inches, as measured from the interior face of the exterior wall to the centerline 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 Section 10.4.3.2.1 through 10.4.3.2.4.

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 exitways 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 Section 5 of Division 9 of the Irvine Municipal Code is hereby amended as follows:

Section 5-9-513 Frames; jambs; strikes; hinges

- A. The first paragraph of Section 5-9-513 is deleted and amended to read:

Installation and construction of frames, jambs, strikes and hinges for locking exterior swinging doors and doors leading from garage into dwelling unit shall be as follows:

Section 5-9-516 Special residential building provisions

- A. Item A.6 is added to read:

6. Dutch-type doors shall have a deadbolt on the upper and lower half, both engaging the door frame.

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

2. Numerals shall be no less than four inches in height and illuminated during the hours of darkness. The numerals and light source shall be contained within a single, weather-resistant fixture. The light source shall be provided with an uninterruptible A.C. power source or controlled only by a photoelectric device. Battery operated units are prohibited. Nothing in this section shall preclude the requirement for circuit protection devices where applicable.

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

3. Buildings farther than 100 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 three-inch high numerals, 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. A range of address numbers may be used when there are multiple buildings instead of listing individual address numbers. The range of addresses shall note 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.

D. The first paragraph of Item C. is deleted and amended to read:

- C. Multiple family buildings and detached condos shall display a street address number conforming to the following specifications. Dual signage may be required to meet accessibility requirements of the California Building Code including but not limited to mounting height, size, font, Braille, and tactile standards:

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

2. Numerals shall be located within one foot of the door frame and illuminated during the hours of darkness. The numerals and light source shall be contained with a single, weather-resistant fixture. The light source shall be provided with an uninterruptible A.C. power source or controlled only by a photoelectric device. Battery operated units are prohibited. Nothing in this section shall preclude the requirement for circuit protection devices where applicable. An illuminated fixture is not required when the address number can be lighted by area lighting as required in section 5-9-516 E regarding walkways and doors.

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

3. For buildings containing ten or more units, each side which affords vehicle and/or pedestrian access, the primary address number or range of primary address numbers within the building and range of unit numbers within the building where a multi-building complex has one primary address number shall be displayed. If the building has vehicle or pedestrian access from an adjacent street not associated with the building addressing, then in addition to the address numbers, the addressed street name must also be displayed. Numerals and any lettering shall be a minimum of eight inches in height. The font used shall be Sans Serif with a stroke weight of medium to bold, or an approved equivalent font which is clearly legible. Such numerals and any lettering shall be of contrasting color to the background to which they are attached, and mounted not less than 10 feet nor more than 20 feet from ground level. Addressing shall be clearly illuminated during the hours of darkness with an uninterruptible A.C. power source or controlled only by a photoelectric device, which may be the common area site lighting. Building landscaping at full maturity shall not obstruct visibility to the numerals. Monument signs may be used wherein the sign copy shall be no less than 2 feet from ground level and not obstructed by landscaping at full maturity or by parked cars. Numerals shall be at least 3 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.

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

4. Multifamily complexes and detached condos where all unit address numbers are not visible from the addressed public or private street and with more than one building shall provide vehicle directional signage from point of entry onto the property to each building parking area and/or building entrance and at all decision making locations along walkways. Signs shall display building addresses or unit number range, and be located at the complex entry and at all turning points along the route to a building entrance or parking area. Range of addresses shall note if all numbers are even or odd based upon existing or potential address sequencing conflicts on the opposite side of the addressed street, with the word "even" or "odd" in minimum 1.5 inch high letters. Signs shall contain directional arrows and street name, in minimum 1.5 inch high letters, if the complex has more than one addressed street. Numerals shall be no less than two feet from ground level and not obstructed by building landscaping at full maturity or by parked cars. Numerals shall be at least 3 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.

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

5. 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 10 feet. It shall be lighted 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.

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

6. 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 5 feet. It shall be lighted 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.

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

7. Pedestrian directional signage shall be provided for multifamily complexes and detached condos to guide persons to dwelling units and amenities 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 4 and 6 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 2 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.

K. Item C.8.d. is added to read:

- d. unit address numbers on each floor

L. The first paragraph of Item D is deleted and amended to read:

D. Single-family dwelling units, garages, motor courts, and tracts of homes shall conform to the following lighting standards:

M. Items D.3. through D.8. are added to read:

3. Motor courts serving at least four homes shall be illuminated with a minimum maintained 0.50 foot-candles of light on the ground level during the hours of darkness.
4. Model home temporary parking lots shall be illuminated with a minimum maintained 0.50 foot-candles of light on the ground surface during the hours of operation and one hour thereafter.
5. Accessible luminaires utilized to meet the requirements of this section shall have fully enclosed vandal resistant light fixtures and a minimum of 78 inches in height above the driving surface. Light fixtures shall be deemed accessible if mounted within 15 feet vertically or six feet horizontally from any accessible surface or any adjoining roof, balcony, landing, stair tread, platform or similar structure.
6. The light source utilized to comply with this section to meet parking and drive surface lighting shall have a rated average bulb life of not less than 12,000 hours.
7. For developments that include common areas such as motor courts, internal walkways or similar spaces, a site plan shall be provided showing buildings and common areas required to be illuminated including tree landscaping, tree legend, 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 maximum/minimum). Landscaping shall not be planted so as to obscure required light levels with light fixtures exceeding eight-feet (8') in height installed at least two-feet (2') from a tree's canopy at 70 percent maturity.
8. The required light source shall be controlled by a photocell device or a timeclock with an astronomic feature.

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

E. Multiple-family buildings, carports, parking areas, driveways, and walking surfaces shall conform to the following lighting standards:

1. All vehicular drive surfaces, open parking areas and carports shall be illuminated with a minimum maintained one foot-candle of light at ground level during the hours of darkness.

Exceptions:

1. A residential drive aisle may be illuminated with a minimum maintained 0.50 foot-candles of light on the ground level during the hours of darkness, if it is no wider than 30 feet, has buildings on each side of it and pedestrian circulation routes are not part of this aisle.
2. Model home temporary parking lots may be illuminated with a minimum maintained 0.50 foot-candles of light on the ground surface during the hours of operation and one hour thereafter.

O. Item E.3. is deleted and amended to read:

3. Open stairways and enclosed common area corridors shall be illuminated with a minimum maintained one foot-candle of light on all landings and stair treads during the hours of darkness. Enclosed stairways shall be illuminated at all times with a minimum maintained one foot-candle of light on all landings and stair treads.

P. Item E.6. is deleted and amended to read:

6. Accessible luminaires utilized to meet the requirements of this section shall have fully enclosed vandal resistant light fixtures and be not less than three feet in height from the walking surface when used to illuminate walkways and a minimum of 78 inches in height above the driving surface when illuminating surfaces associated with vehicles. Light fixtures shall be deemed accessible if mounted within 15 feet vertically or six feet horizontally from any accessible surface or any adjoining roof, balcony, landing, stair tread, platform or similar structure.

Q. Item E.7. is deleted and amended to read:

7. The light source utilized to comply with this section to meet parking and drive surface lighting shall have a rated average bulb life of not less than 12,000 hours.

R. New item E.8. is added and existing Item E.8. is renumbered to E.9. and amended to read:

8. 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. Areas within a 50 foot radius of an elevator lobby/doors and stairways shall not fall below the required minimum maintained 1.25 foot-candles of light.

9. A site plan shall be provided, unless otherwise approved, showing buildings, parking area, walkways, detailed landscaping, 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 (8') in height installed at least two-feet (2') from a tree's canopy at 70 percent maturity.

S. Existing item E.9. is renumbered to E.10. and amended to read:

10. The required light source shall be controlled by a photocell device or a timeclock with an astronomic feature.

T. Item G. is deleted and amended to read:

- G. Mail boxes, not located within a room, in multi-family complexes are to be located in highly visible areas adjacent to common area activity amenities and not directly accessed from inside parking structures. Mail rooms are to have glass doors and/or windows to provide visibility into them from the surrounding area. The room is to be illuminated with a minimum maintained five foot-candles of light on the floor at all times.

U. Items H., I. and J. are added to read:

- H. Except as part of a required egress system, gates to side or backyards are to be equipped with a latch capable of being locked with either a padlock or other mechanical locking device.
- I. Multiple family garages or any shared residential parking facility with storage units/cabinets shall be protected as follows:
 1. Storage rooms shall comply with Section 5-9-517.A if standard swinging doors are utilized.

Exception: Hollow steel doors may be a minimum 18 U.S. gauge.

2. Storage units utilizing storage cabinets installed above grade shall utilize non-removable door hinges from the exterior and a locking device which protects a padlock from being cut.
- J. Public streets which connect to and change ownership to private streets while still maintaining the same character and width of the public street, making it indistinguishable from a public street, shall have a sign posted at the location where ownership changes stating "private street". The sign is to be at least two feet in height with sign copy not less than two feet from ground level using at least three-inch lettering. Install in location that is highly visible and not blocked by landscaping.

Section 5-9-517 Special nonresidential building provisions

A. Item A.3. is added to read:

3. Doors without mechanical locks may be secured with a magnetic locking device which shall have a minimum holding force of 1600 lbs. and a minimum 12 hour backup battery source.

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

- G. Glazing shall be deemed accessible, if any portion of it is within 40 inches of any door locking mechanism, and shall be constructed of either two part laminated glazing with a 0.060 inch inner layer or burglary resistant glazing.

Exception: Glass doors at least ½ inch thick and greater than 2880 square inches.

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

5. All exterior pedestrian walkways, interior common corridors, and open parking lots shall be illuminated with a minimum maintained one foot-candle of light on the walking, parking or driving surface during the hours of operation and one hour thereafter.

D. Item K.6. is deleted and amended to read:

6. The light source utilized to comply with this section to meet parking and drive surface lighting shall have a rated average bulb life of not less than 12,000 hours.

E. Item K.7. is added to read:

7. Light fixtures for open parking lots may utilize motion sensing 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 only be used after business hours and shall be adjusted to sense and activate a light when a vehicle or person is within 24 feet of the fixture. Areas within a 50 foot radius of an elevator lobby/doors and stairways shall not fall below the required minimum maintained 1.0 foot-candles of light.

F. Existing item K.7. is renumbered to K.8. and amended to read:

8. Accessible luminaires utilized to meet the requirements of this section shall have fully enclosed vandal resistant light fixtures and be not less than three feet in height from ground level when used to illuminate walkways and a minimum of eight feet in height from ground level when illuminating surfaces associated with vehicles. Light fixtures shall be deemed accessible if mounted within fifteen feet vertically or six feet horizontally from any accessible surface or any adjoining roof, balcony, landing, stair tread, platform or similar structure.

G. Existing item K.8. is renumbered to K.9. and amended to read:

9. A site plan shall be provided showing buildings, parking area, walkways, detailed landscaping, 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 (8') in height installed at least two-feet (2') from a tree's canopy at 70 percent maturity.

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

5. 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. Sign copy shall be no less than 2 feet from ground level and not obstructed by landscaping at full maturity or by parked cars. Numerals shall be at least 3 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.

Section 5-9-518 Special parking facilities provisions

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

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

1. Signs shall be installed identifying elevators and stairwells with lettering at least 10 inches in height and clearly visible with the parking facility.
2. Parking facilities with at least 300 parking spaces per floor shall provide additional signage as follows:
 - a. Floor identification signs shall be placed at least every 75 feet and have numerals/letters at least 10 inches in height, with section identification at least 8 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 and be placed at least 6 feet above the parking surface.
 - b. Wayfinding signs for 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 6 feet above the parking surface. The signs shall have text of at least 3 inches in height utilizing a Sans Serif font with stroke weight of medium to bold.
 - c. A Wayfinding-Directional signage plan shall be developed as part of the construction plans and approved by the Enforcing Authority.
3. All garage graphics shall be applied to their respective field surfaces with sufficient contrast as to be easily legible in various lighting conditions.

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

E. Open bicycle storage areas shall be designed and protected as follows:

1. Located in areas highly visible to users of the facility.
2. Bicycle racks in residential complexes shall be protected by see-through metal fencing which either fully encloses the racks with fencing or have floor to ceiling fencing, and secured either with an access control system locking device or mechanical door lock. Padlocks are prohibited.

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

1. Elevators which serve more than two floors, above ground level, with at least one shaft wall exposed to the exterior shall have clear glazing installed in one exterior wall to provide visibility into the elevator cab.

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

1. All parking, driving, and walking surfaces, except stairways, shall be illuminated at all times with a minimum maintained 1.25 foot-candles of light.

Exceptions:

1. Parking facilities which have physically precluded pedestrian and vehicle access during non-business hours may provide a minimum maintained 0.25 of light on the parking, walking and driving surfaces.
2. Open roof top parking may be illuminated to a minimum maintained one foot-candle of light on the parking and walking surface.

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

5. All luminaires utilized to meet the requirements of this section shall have fully enclosed vandal resistant light fixtures, if on the exterior, with no portion of the fixture placed less than 72 inches above the walking or driving surface.

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

6. The light source utilized to comply with this section to meet parking and drive surface lighting shall have rated average bulb life of not less than 12,000 hours.

G. New item L.7. is added to read:

7. Light fixtures may utilize motion sensing 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 0.5 foot-candles of light at ground level when not occupied. The devices shall be adjusted to sense and activate a light when a vehicle or person is within 24 feet of the fixture. Areas within a 50 foot radius of an elevator lobby/doors and stairways shall not fall below the required minimum maintained 1.25 foot-candles of light.

H. Existing item L.7. is renumbered to L.8. and amended to read:

8. A site plan shall be provided showing buildings' parking area, walkways, detailed landscaping, 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 (8') in height installed at least two-feet (2') from a tree's canopy at 70 percent maturity.

I. Existing item L.8. is renumbered to L.9. and amended to read:

9. The required light source shall be controlled by a photocell device or a timeclock with an astronomic feature and capable of operating during a power failure.

Section 5-9-519 Emergency access

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

2. Key switches shall be secured to the control housing, telephone/intercom call box or parking ticket dispenser utilizing tamper resistant screws.

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

1. Pedestrian gates/doors using an electrically automated type lock shall be provided with an approved radio controlled entry system and a key switch within a telephone/intercom console, or installed adjacent to the door inside a wall/door frame, or in a control housing as described in section (A)(1) above or in a method approved by the enforcing authority. Key switches shall be secured utilizing tamper resistant screws. 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 the radio controlled entry system if approved by the police department.

Exceptions:

1. Recreation buildings are not required to have a radio controlled entry system.
2. Interior stairway doors are not required to have a radio controlled entry system.

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

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 4 feet above finished grade and within 2 feet of the locking device. Mechanical locks using combination locks shall have a keyway and key for the key vault.

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

- C. Nonresidential multi-tenant buildings and hotels with a common area entrance and interior walkway 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:

E. Item C.4. is added to read:

4. Hotels shall have a keyswitch at all building entrances with electrically automated type locks accessible to the hotel guests. A radio controlled entry system is not required.

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

- D. 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. Owner's padlock shall be used to secure the gate.

G. Item G. is deleted and amended to read:

- G. An Emergency Access Plan, approved by the Police Department, shall be required when a radio controlled entry system, key switch, or key vault is required to be installed. The plan shall identify the location of each device on a site plan.

Section 5-9-520 – Special recreational spaces provisions

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

2. Recessed areas of buildings or fences, which have a minimum depth of two feet, a minimum height of five feet, and do not exceed six feet in width and are capable of human concealment, shall be illuminated with a minimum maintained 0.25 foot candles of light at ground level during the hours of darkness. This requirement applies to defined recessed areas which are within six feet of the edge of a designated walking surface with an unobstructed pathway to it, not hindered by walls or hedge row landscaping a minimum of two feet in height.

B. Item B.6. is deleted and amended to read:

6. Paved walkways in open space areas, not directly serving buildings or parking areas, shall be illuminated with a minimum maintained 0.25 foot-candles of light on the walking surface during the hours of operation.

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

7. Swimming pool decks and other hard surface recreation activity areas shall be illuminated with a minimum maintained 0.50 foot-candle of light on the walking surface during the hours of operation and one hour thereafter.

D. Item B.8. is deleted and amended to read:

8. The light source utilized to comply with this section to meet parking and drive surface lighting shall have a rated average bulb life of not less than 12,000 hours.

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

9. Luminaires utilized to meet the requirements of this section shall have fully enclosed vandal resistant light fixtures, if accessible, and be not less than eight feet in height from ground level. A luminaire not less than 42 inches may be utilized to illuminate a walkway if adjacent landscaping is of a variety which does not mature higher than two feet, and it does not interfere with the required light distribution for a distance of 16 feet along the walkway. Light fixtures shall be deemed accessible if mounted within 15 feet vertically or six feet horizontally from any accessible surface or any adjoining roof, balcony, landing, stair treads, platform or similar structure.

F. Item B.10. is deleted and amended to read:

10. Lighting near basketball courts shall be designed so as to eliminate or greatly minimize illuminating the courts.

G. Existing item B.10. is renumbered to B.11. and amended to read:

11. Activation of the required exterior lighting shall be either by a photocell device or a time clock with an astronomic clock feature.

H. Existing item B.11. is renumbered to B.12. and amended to read:

12. A site plan shall be provided showing buildings, parking area, walkways, detailed landscaping, 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 (8') in height installed at least two-feet (2') from a tree's canopy at 70 percent maturity.

I. Existing item B.12. is renumbered to B.13. and amended to read:

13. Public recreation facilities and spaces shall utilize light poles and fixtures listed on the Irvine Community Services Department approved products list.

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

2. The pool equipment room shall be secured as follows:

- a. A dead latch bolt lockset, with a minimum bolt throw of $\frac{3}{4}$ inches, operated either mechanically or electrically with a protective plate constructed of steel 0.125 inch thick, which shall be attached with nonremovable bolts to the outside of the door. The plate shall extend a minimum of six inches vertically above and below the latch of the panic hardware. The plate shall be a minimum of two inches wide and extend a minimum of one inch beyond the edge of the door to which it is attached; or
- b. A deadbolt lockset as specified in Section 5-9-517.B. which can be either operated mechanically or electrically.

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

3. The on and off switch for the spa is to be keyed or access controlled.

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

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 4 feet above finish grade and within 2 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 2 feet of locking device due to structural issues, then it may be mounted within 4 feet of the locking device.

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

8. Private park pools/spas, which may be reached by the general public, shall have signage indicating it is private property and no trespassing allowed, citing the current Penal Code section for trespassing.

N. Item C.9. is deleted and amended to read:

9. Address numbers, when assigned, shall be visible from inside and outside the pool, and the numerals and street name shall be at least 4 inches in height using Sans Serif font with a stroke weight of regular to medium, or an approved equivalent font which is clearly legible.

O. New item C.10. is added to read:

10. Showers shall be located in highly visible areas outside and not inside a building, and not be obscured by wing walls greater than 42 inches in length.

P. New item D.4. is added to read:

4. In public parks, planters at least two feet in length and under 42 inches in height, which are directly adjacent to a cement or asphalt walking or driving surface, shall have devices attached to the outer edges which are designed to discourage skateboard grinding (vandalism) or the edges shall be designed in such a manner as to deter such grinding.

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

1. 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 6 inches for the park name, a minimum of 4 inches for the address number and street name, and a minimum 3 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. Sign copy shall be at least 30 inches from ground level. Public Park identification signs also must meet the design criteria adopted in the City's Park/Public Facility Design Standards.

R. New item G. is added to read:

G. Private and public space delineation shall be provided as follows:

1. When private and public spaces are shared, there shall be a clear delineation between the two entities. Signage and physical

markers shall make it clear where the property line extends between the City owned property and private property.

Sec. 5-9-521 – Construction site and vacant property security.

A. Item A.3. is deleted.

B. Item A.4. is deleted.

C. Item B.3.e. is added to read:

- e. Emergency access Knox Boxes, when required by the Orange County Fire Authority, shall be sub-mastered to an Orange County Fire Authority key for access by the police department.

D. New item B.6.f. is added to read:

- f. When Southern California Edison power is not available the following temporary alternatives shall be utilized until such power is on site:
 - (1) Portable power generators that meet City noise requirements for construction sites during non-working hours; or
 - (2) Battery or solar operated lights which illuminate the doors of construction trailers, tool bins, and raw materials storage.

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

- 9. An address sign shall be installed at all perimeter vehicle access points and include the street address and tract number, using minimum six-inch high letters and numbers, and shall be posted at the top of the perimeter fence or at least five feet from the ground.

F. New item B.12. is added to read:

- 12. Residential units shall not have appliances installed until the home can be completely secured and locked.

G. Item C.3.c.(2) is deleted and amended to read:

- (2) Utilize one California State Licensed Security Guard for every 10 contiguous acres of the same project or portion thereof, to monitor the site when hours of operation cease, recording persons and vehicles entering and leaving it, saving recorded activity for at least 60 days; or

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

- 4. An address sign shall be installed at all perimeter vehicle access points and include the street name and number, and tract number, using

minimum six-inch high letters and numbers, and shall be posted at the top of the perimeter fence or at least five feet from the ground.

Section 5-9-528 Tests

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

- A. This test section reproduces the requirements set forth in the California Model Building Security Ordinance (Jan. 1978). Documentation indicating compliance with the testing requirements shall be presented with building plans and can either be a copy of the performance testing or labeling found on the doors and windows.

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

7. All sliding door assemblies utilized under this code shall have affixed to each a performance label identifying the following:
- a. Manufacturer of product by name.
 - b. Testing laboratory.
 - c. Certification that the product complies with Section XVI, California Model Building Security Ordinance.

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

- f. All window assemblies utilized under this code shall have affixed to each a performance label identifying the following:
- (1) Manufacturer of product by name.
 - (2) Testing laboratory.
 - (3) Certification that the product complies With Section XVI, California Model Building Security Ordinance.

SECTION 7. Chapter 9 of Section 6 of Division 7 of the Irvine Municipal Code is hereby amended as follows:

Section 6-7-902. Diversions requirements. Section 6-7-902 is hereby deleted in its entirety and amended to read as follows:

Section 6-7-902. Diversion Requirements.

- A. Residential. At least 75% of all non-hazardous concrete and asphalt construction and demolition debris and 65% of all other non-hazardous construction, demolition, excavated soil and land-clearing debris generated by

any Covered Project shall be delivered to a material recovery facility, with the intention that such material be recycled, or otherwise diverted from landfills through direct delivery of such materials to brokers or end-users, through on-site reuse, or through any other diversion method(s) specified in an approved Waste Management Plan.

- B. Non-residential. 100% of all non-hazardous excavated soil and land-clearing debris, at least 75% of all non-hazardous concrete and asphalt construction and demolition debris and 65% of all other non-hazardous construction and demolition debris generated by any Covered Project shall be delivered to a material recovery facility, with the intention that such material be recycled, or otherwise diverted from landfills through direct delivery of such materials to brokers or end-users, through on-site reuse, or through any other diversion method(s) specified in an approved Waste Management Plan.
- C. When calculating diversion amounts pursuant to this Section, "all other" construction and demolition debris shall include fixtures, appliances, and other similar items. All Covered Projects are subject to Section 6-7-201 regarding use of City authorized solid waste haulers.
- D. Any exceptions to these requirements must be authorized by the Public Works Department, and only when warranted due to anticipated low waste generation volumes, as consistent with provisions of the California Green Building Code.

Section 6-7-903. Thresholds for Covered Projects. Section 6-7-903 is hereby deleted in its entirety and amended to read:

Section 6-7-903. Thresholds for Cover Projects.

- A. "Covered Project" shall mean any of the following projects:
 - 1. All projects involving new or existing residential development, except for additions or renovations not increasing an existing building's conditioned area, volume or size, or others exempted in accordance with 6-7-902-B.
 - 2. All non-residential projects subject to a building or demolition permit, unless determined to be exempted in accordance with 6-7-902-D or otherwise by the California Green Building Code.

SECTION 8. 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 9. 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 27th day of September 2016.

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 McLaughlin, City Clerk of the City of Irvine, HEREBY DO CERTIFY that the foregoing Ordinance was introduced for first reading on the 13th day of September 2016 and duly adopted at a regular meeting of the City Council of the City of Irvine held on the 27th day of September 2016, by the following vote:

AYES: 5 COUNCILMEMBERS: Krom, Lalloway, Schott, Shea and Choi
NOES: 0 COUNCILMEMBERS: None
ABSENT: 0 COUNCILMEMBERS: None
ABSTAIN: 0 COUNCILMEMBERS: None

CITY CLERK OF THE CITY OF IRVINE