



Fire Code-Ordinance No 2014-01A



FINAL

Rancho Santa Fe Fire Protection District

Effective Date April 12, 2015

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ORDINANCE NO. 2014 -01A

AN ORDINANCE OF THE RANCHO SANTA FE FIRE PROTECTION DISTRICT WHICH ADOPTS THE CALIFORNIA FIRE CODE, 2013 EDITION, AND 2012 INTERNATIONAL FIRE CODE WITH CERTAIN AMENDMENTS, ADDITIONS, AND DELETIONS

WHEREAS, Health & Safety Code Section 17958 mandates that the Rancho Santa Fe Fire Protection District shall adopt ordinances or regulations imposing the same requirements as are contained in the regulations adopted by the State pursuant to Health & Safety Code, Section 17922; and

WHEREAS, the State of California is mandated by Health & Safety Code Section 17922 to impose the same requirements as are contained in the 2013 California Fire Code, hereinafter referred to collectively as the Fire Code; and,

WHEREAS, the State of California is mandated by Health & Safety Code section 17922 to impose the same requirements as are contained in the 2013 California Fire Code, together with the Rancho Santa Fe Fire Protection District amendments shall be Rancho Santa Fe Fire Protection District Fire Code for the purpose of prescribing regulations in the unincorporated territory of the County of San Diego and the Rancho Santa Fe Fire Protection District; and

WHEREAS, code amendments adopted by the State of California shall take precedence over the 2012 International Fire Code language. The 2012 International Fire Code language shall be used for those code sections not adopted by the State; and

WHEREAS, local amendments adopted by the Rancho Santa Fe Fire Protection District shall take precedence over both 2013 California Fire Code and the 2012 International Fire Code; and

WHEREAS, Health & Safety Code Section 17958.5 permits the Rancho Santa Fe Fire Protection District to make such changes or modifications to the Codes as are reasonably necessary because of local conditions; and,

WHEREAS, Health & Safety Code Section 17958.7 requires that the Rancho Santa Fe Fire Protection District before making any changes or modifications pursuant to Section 17958.5 make express findings that such changes or modifications are needed due to climatic, geographic, or topographic conditions; and,

WHEREAS, the Rancho Santa Fe Fire Protection District of the Rancho Santa Fe Fire Protection District does herewith find that the Rancho Santa Fe Fire Protection District has

certain climatic, geologic, and topographical features that can have a deleterious effect on emergency services such as fire protection and emergency medical services; and,

WHEREAS, the Rancho Santa Fe Fire Protection District finds that the modifications and changes to the 2013 California Fire Code and 2012 International Fire Code are reasonably necessary because of the following local climatic, geological, and topographical conditions as identified in Attachment A.

WHEREAS, certain amendments to the 2013 California Fire Code and 2012 International Fire Code serve to mitigate to the extent possible said deleterious effects:

WHEREAS, Section 50022.1 through 50022.10, inclusive, of the Government code and Section 13869 of the Health and Safety Code, provide authority for the adoption by reference of codes, or portion of such codes:

NOW THEREFORE, the Board of Directors of the Rancho Santa Fe Fire Protection District does ordain as follows:

That Ordinance No. 2011-01, to the extent that the latter is or was effective, of the Rancho Santa Fe Fire Protection District and all other ordinance or parts of ordinances in conflict herewith are hereby repealed.

The Board of Directors of the Rancho Santa Fe Fire Protection District does ordain as follows:

Section 1

That a certain document, three (3) copies of which are on file in the office of the Board of Directors of Rancho Santa Fe Fire Protection District, being marked and designated as the 2013 California Fire Code, including Appendix Chapters, Appendix Chapter 4, Appendix B, BB, H, I & K as published by the International Code Council, and the National Fire Protection Association (NFPA) Standards 13, 13-R & 13-D, 2013 Editions as amended by the 2013 California Fire Code, together with the District's amendments in this ordinance, be and is hereby adopted as the Fire Code of the Rancho Santa Fe Fire Protection District, in the State of California regulating and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises, erection, construction, enlargement, alteration, repair, moving, removal, conversion, demolition, equipment use, and maintenance of buildings and structures, including the installation, alteration or repair of new and existing fire protection systems and their inspection and provides penalties for violation of this code, and applies to all Fire & Life Safety recommendations regarding all ministerial and discretionary planning applications, including

that providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, penalties, conditions and terms of said Fire Code on file in the office of the Rancho Santa Fe Fire Protection District are hereby referred to, adopted, and made a part hereof, as if fully set out in this ordinance, with the additions, insertions, deletions and changes, if any, prescribed in Section 2 of this ordinance.

Section 2

That the following sections are hereby revised:

Division II Administration Chapter 1 -Section 101.5 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 101.5 Rancho Santa Fe Fire Protection District Validity:** The Board of Directors of the Rancho Santa Fe Fire Protection District hereby declares that should any section, paragraph, sentence or word of this ordinance or of the code hereby adopted be declared for any reason to be invalid, it is the intent of the Board of Directors of the Rancho Santa Fe Fire Protection District that it would have passed all other portions of this ordinance independently of the elimination here from of any such portion as may be declared invalid.

Division II Administration Chapter 1 - Section 102.5 Repeal of Conflicting Ordinances, Resolutions or motions is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (R) **Section 102.5 Application of Residential Code.** Where structures are designed and constructed in accordance with the *International Residential Code*, the provisions of this code shall apply as follows:
1. Construction and designed provisions: Provisions of this code pertaining to the exterior of the structure shall apply including, but not limited to, premises identification, fire apparatus access and water supplies. Provisions of this code pertaining to shall apply to the interior of the structure when specifically required by this code including, but not limited to, Section 903.1 Where interior or exterior systems or devices are installed, and construction permits required by Section 105.7 of this code shall also apply.
 2. Administrative, operational, and maintenance provisions: all such provisions of this code shall apply.

Division II Administration Chapter 1 - Section 102.13 Repeal of Conflicting Ordinances, Resolutions or motions is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) **Section 102.13 Repeal of Conflicting Ordinances, Resolutions or Motions:** All former ordinances, resolutions or motions, or parts thereof, conflicting or inconsistent with the provisions of this Ordinance or of the Code or standards hereby adopted are hereby repealed.

Division II Administration Chapter 1- Section 104.1 General authority of responsibilities is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(R) **Section 104.1 General Authority and Responsibilities.** The fire code official is hereby authorized to enforce the provisions of this code and shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purpose of this code and shall not have the effect of waiving requirements specifically provided for in this code. The fire code official may consult with other fire professionals and experts in the interpretation and application of this code.

Division II Administration Chapter 1- Section 104.8 Modifications is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(R) **Section 104.8 Modifications.** Whenever there are practical difficulties involved in carrying out the provisions of this code, the fire code official shall have the authority to grant modifications for individual cases, provided the fire code official shall first find that special individual reasons make the strict letter of this code impracticable and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, life and fire safety requirements. The applicant's request for a modification shall state the specific sections(s) for which a modification is requested, material facts supporting the contention of the applicant, the details of the modification or mitigating measure proposed and, if applicable, a map showing the proposed location and siting of the modification or mitigation measure. The details of action granting modifications shall be recorded and entered into the files of the department of fire prevention.

Division II Administration Chapter 1- Section 104.12 Cost Recovery is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) Section 104.12. Cost Recovery: The purpose of this section is to establish authority to obtain reimbursement from responsible individuals for the expenses of any emergency response and/or enforcement action by the Rancho Santa Fe Fire Protection District to protect the public from fire or hazardous substances and situations.

(A) Section 104.12.1 Reimbursement.

- a. In accordance with the Health and Safety Code section 13000 et seq., an individual who acts negligently or in violation of the law and thereby requires the jurisdiction to provide an emergency response to a danger posed by a fire or hazardous substance shall be liable for reimbursement to the agency for the costs incurred.
- b. In accordance with Government Code Sections 53150 through 53158, any individual who is under the influence of an alcoholic beverage or any drug or the combined influence of an alcoholic beverage or any drug, and whose negligent operation of a motor vehicle, boat or vessel, or civil aircraft caused by that influence, proximately causes any incident and thereby requires the agency to provide an emergency response shall reimburse the agency for the cost incurred.

Division II Administration Chapter 1 - Section 105.3.9 Expense Recovery is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) Section 105.3.9 Expense Recovery: The purpose of this section is to establish authority to obtain reimbursement from responsible individuals for the expenses of any emergency response and/or enforcement action by the Rancho Santa Fe Fire Protection District to protect the public from fire or hazardous substances and situations.

Division II Administration Chapter 1 - Section 105.6.5.1 Christmas Tree Lots is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) Section 105.6.5.1 Christmas Tree Lots: To operate a Christmas tree lot with or without flame proofing services. Permit is required per section 105.6 Required Operational Permits.

Division II Administration Chapter 1- Section 105.6.19.1 Green waste Recycling, Mulching, Composting Operations And Storage is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 105.6.19.1 Green waste Recycling, Mulching, Composting Operations and Storage.** Permit is required per section 2801.2 of Chapter 28

Division II Administration Chapter 1- Section 105.8 New materials, processes or occupancies which require permits is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 105.8 New Materials,** processes or occupancies, which require permits. The fire code official may determine, after allowing affected persons an opportunity to be heard, that a material, process or occupancy, not listed in this code shall require a permit, in addition to those now enumerated in this code. In that case, the fire code official shall prepare a list of any additional material, process or occupancy that shall require a permit and post the list in a conspicuous place in the offices of the fire authority having jurisdiction. Any interested person may obtain a copy of the list.

Division II Administration Chapter 1 - Section 108 Appeals is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 108.1 Appeals Procedure for the Rancho Santa Fe Fire Protection District Fire Code:** This section establishes appeal procedures from a fire code official's order, decision or determination. See Section 108.4.3 Appeals regarding fire code requirements other than building permits and discretionary permits shall comply with 2013 California Fire Code Section 108 –Board of Appeals

- (A) **Section 108.4.1 Appeals of Decisions Regarding Building Permits:** A project applicant or the County may appeal a fire code official's determination granting, denying or imposing conditions on an application for a building permit by filing an appeal in writing with the Regional Fire Appeals Board (Appeals Board) within 30 days of the County fire code official's determination. The Appeals Board shall make factual findings and issue a written recommendation to the County Building Official on whether the fire code official's determination should be upheld, modified or overturned. A copy of the recommendation shall be provided to the applicant. The County Building Official shall act on the Appeals Board's recommendation and issue a written decision to the parties within 15 days of receipt of the Appeals Board's recommendation. The Building Official's decision shall be final.

- (A) **Section 108.4.2 Appeals of Decisions Regarding Discretionary Permits:** The County, the fire agency or the project applicant may seek review of the fire code official's determination by the Appeals Board by filing a request for review with the Appeals

Board within 30 days of the fire code official's determination. When reviewing a fire code official's determination pursuant to this subsection, the Appeals Board shall act in an advisory capacity. The Appeals Board shall review the fire code official's determination and make a recommendation to uphold, overrule or modify the fire code official's determination. The Appeals Board shall render its recommendation to the County decision maker or decision-making body for consideration with the application for the discretionary permit.

(A) **Section 108.4.3 Appeals of Decisions for a Matter Other Than a Building Permit or Discretionary Permit:** Any affected party may appeal a determination made by the fire code official regarding a matter for which a building permit or discretionary permit is not required by filing an appeal in writing with the fire protection district's Board of Directors within 30 days of the fire code official's final determination. The Board of Directors shall review the fire code official's determination and make a recommendation to uphold, overrule or modify the fire code official's determination. The Board of Director's determination shall be final.

(A) **Section 108.5 Regional Fire Appeals Board:** This section establishes a Regional Fire Appeals Board consisting of five members. The Appeals Board shall consist of the following:

- (a) The Appeals Board members shall consist of the following:
 - Two representatives from the San Diego County Fire Districts Association.
 - Two chief officers from CAL FIRE.
 - One fire marshal from the unincorporated area of the County.
- (b) The Appeals Board shall not include a representative from the agency whose fire code official made the determination that is being appealed. An alternate for the regular member(s) of the Appeals Board shall be designated to serve in this situation.
- (c) Three members shall constitute a quorum for the transaction of business, and three affirmative votes shall be necessary to render a recommendation.
- (d) If the Appeals Board recommends a modification to this code for an individual case, a copy of the recommendation and findings along with a map showing the proposed modification and mitigating measures shall be forwarded to the Unit Chief of CAL FIRE, San Diego/Imperial Unit.

Division II Administration Chapter 1 – Section 109.4. Violation Penalties is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(R) **Section 109.4 Violation penalties** Persons who shall violate a provision of this code 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 the provisions of this code, shall be guilty of an infraction or misdemeanor, punishable by a fine of not exceed \$1,000 dollars or by imprisonment not exceeding six (6) months, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Division II Administration Chapter 1 - Section 111.4 Failure to Comply is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(R) **Section 111.4 Failure to Comply** – Any person, who shall continue any work having been served with a stop work order, except such work as that the person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than \$250.00 dollars or more than \$1,000 dollars.

Chapter 2 Definitions - Section 202 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

Accessory Structure A building or structure used to shelter or support any material, equipment, chattel, or occupancy other than a habitable building. (A) (See Structure)

All-weather Surface is considered as paving, concrete, or as approved by a civil Engineer.

ASTM refers to the American Society for Testing and Materials

Blaster A person who has been approved by the Sheriff to conduct blasting operations and who has been placed on the list of approved blasters. The listing shall be valid for one year unless revoked by the Sheriff.

Blasting Agent A material or mixture consisting of a fuel and oxidizer intended for blasting. The finished product as mixed and packaged for use or shipment shall not be detonated by means of a No. 8 test blasting cap when unconfined.

Blasting Operation The uses of an explosive device or explosive material to destroy, modify, obliterate or remove any obstruction of any kind.

Blasting Permit A permit issued by the Issuing Officer pursuant to section 105.6.14. The permit shall apply to a specific site and shall be valid for a period not to exceed one year.

Blast Site The geographically defined area, as shown on a project map or plot plan, where a blaster is authorized by a blasting permit issued under this section to conduct a blasting operation.

Combustible Vegetation is material that in its natural state will readily ignite, burn and transmit fire from the vegetative growth to any structure, this includes ground fuels which are any native or landscape vegetation not considered a tree and generally in contact with the ground.

County when used in this code refers to the County of San Diego

Discretionary Project “Discretionary Project” means a project, which requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity, as distinguished from situations where the public agency or body merely has to determine whether there has been conformity with applicable statutes, ordinances, or regulations.

Explosive Permit A permit to possess or use explosives, issued by the Issuing Officer, pursuant to California Health and Safety Code sections 12000 et seq. and Chapter 56 of this code. An explosives permit shall be valid for a period not to exceed one year, as provided in the permit conditions.

Fire Authority Having Jurisdiction (FAHJ) is the designated entity providing enforcement of fire regulations as they relate to planning, construction, and development. This entity may also provide fire suppression and other emergency services.

Fire Code Official The fire chief or a duly authorized representative charged with the administration and enforcement of this code.

Fire Chief The fire chief is one of the following:

- (a) The person appointed by the Board of Supervisors to serve as fire chief in the unincorporated areas not within a fire protection district.
- (b) The chief officer of a fire protection district.
- (c) The Sheriff when enforcing section Chapter 5601 of the County Fire Code within the unincorporated areas of the County.

Fire Department is any regularly organized fire department, fire protection district, a legally formed volunteer fire department recorded with the County of San Diego, or Fire Company regularly charged with the responsibility of providing fire protection to the jurisdiction.

Fire Hazard is anything that increases or could create an increase of the hazard or menace of fire to a greater degree than customarily recognized as normal by persons in the public service regularly engaged in preventing, suppressing or extinguishing fire or anything or act which could obstruct, delay, hinder or interfere with the operations of the fire department or egress of occupants in the event of fire.

Fire Protection District Any fire protection district created under State law and any water district providing fire protection services.

Fuel Modification Zone is a strip of land where combustible vegetation has been thinned, modified or both and partially or totally replaced with approved drought tolerant, fire resistant, and/or irrigated plants to provide an acceptable level of risk from vegetation fires. Fuel modification reduces radiant and convective heat, thereby reducing the amount of heat exposure on the roadway or structure and providing fire suppression forces a safer area in which to take action.

Hazardous Fire Area is any geographic area mapped by the State or local jurisdiction as a high or very high fire hazard area, or as set forth by the FAHJ that contains the type and condition of vegetation, topography, weather, and structure density to potentially increase the possibility of vegetation conflagration fires shall be considered a hazardous fire area.

Heavy Timber Construction as described in the California Building Code.

Ignition-Resistant Material is any product which, when tested in accordance with ASTM E84 for a period of 30 minutes, shall have a flame spread of not over 25 and show no evidence of progressive combustion. In addition, the flame front shall not progress more than 10½ feet (3200 mm) beyond the centerline of the burner at any time during the test. (CBC)

Materials shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM D 2898 and ASTM D 3201. All materials shall bear identification showing the fire performance rating thereof. That identification shall be issued by ICC--ES or a testing facility recognized by the State Fire Marshal having a service for inspection of materials at the factory. Fire-Retardant-Treated Wood or noncombustible materials as defined in section 202 shall satisfy the intent of this section.

The enforcing agency may use other definitions of ignition-resistant material that reflect wildfire exposure to building materials and/or their materials performance in resisting ignition.

Major Blasting A blasting operation that does not meet the criteria for minor blasting.

Mid-Rise Building a building four stories or more in height, 75 feet or less in height and not defined as a high-rise building by section 202 of the California Building Code. Measurements shall be made from the underside of the roof or floor above the topmost space that may be occupied to the lowest fire apparatus access road level.

Inspector For the purposes of section Chapter 5601, an inspector is a person on the Sheriff's approved of inspectors authorized to conduct inspections, before and after a blast. To be on the Sheriff's approved list, an inspector shall have a blasting license issued by Cal/OSHA.

Minor Blasting A blasting operation that meets all of the following criteria: quantity of rock to be blasted does not exceed 100 cubic yards per shot, bore hole diameter does not exceed 2 inches, hole depth does not exceed 12 feet, maximum charge weight does not exceed 8 pounds of explosives per delay and the initiation of each charge will be separated by at least 8 milliseconds. The maximum charge weight shall not exceed the Scaled Distance as shown below:

Distance from Blast Site (In Feet)	Scale- Distance Factor
0 - 300.....	Mandatory Seismic Monitoring
301 - 5,000.....	55
5,000+.....	65

NFPA refers to the National Fire Protection Association

Non-Combustible Roof Covering one of the following must meet the Class "A" roof covering as noted above:

- Cement shingles or sheets
- Exposed concrete slab roof
- Ferrous or copper shingles or sheets
- Slate shingles
- Clay or concrete roofing tile
- Approved roof covering of noncombustible material

Off-site Roadway a road, street, public highway, or private road used for fire apparatus access from a publicly maintained road to the boundary of the subject property.

On-site Roadway a road, street, public highway, private road, or driveway used for fire apparatus access within the boundaries of the subject property or land division.

Planning Authority Having Jurisdiction (PAHJ) the identified authority regulating and enforcing planning and/or construction standards.

Response Time is the elapsed time from the fire department's receipt of the first alarm to when the first fire unit arrives at the scene.

Roof Covering roofs shall comply with the Building Code and have a minimum Class A roof covering. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be fire stopped to preclude entry of flames or embers.

EXCEPTION: On qualified historical buildings, wood roof covering may be repaired or reconstructed as allowed by the State Historical Building Code.

Sheriff An elected official who is in charge of enforcing local and state laws in the County of San Diego

Structure means a residence and attached garage, building or related facility that is designed primarily for human use or habitation or buildings designed specifically to house farm animals. Decking, fences, and similar facilities are not considered structures for the purposes of establishing the limits of the fuel modification zone. Freestanding open sided shade covers; sheds, gazebos, and similar accessory structures less than 250 square feet and 30 feet or more from the main building are not considered structures for the purposes of this appendix. (See Accessory Structure)

Vegetation Conflagration is an uncontrolled fire spreading through vegetative fuels, and exposing and consuming structures in the advancing path of fire.

Travel Time the estimated time it would take for a responding agency to travel from the fire station to the furthest structure in a proposed development project, determined by measuring the safest, most direct, appropriate and reliable route with consideration given to safe operating speeds for heavy fire apparatus.

Wildland-Urban Interface Code a code regulating and governing the mitigation of hazard to life and property from the intrusion of fire from wildland exposures, fire from adjacent structures and prevention of structure fires from spreading to wildland fuels as adopted by the local FAHJ.

Chapter 3 General Requirements Section 304 Combustible waste material is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 304.1.4 Outdoor carnivals and fairs.** Outdoor carnivals and fairs shall only be conducted on grounds free of combustible vegetation or trimmed to the satisfaction of the FAHJ.

Chapter 3 General Requirements - Section 305.5 Ignition Sources is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 305.5 Rockets, model aircraft and similar devices.** Rockets, model airplanes, gliders, balloons, sky lantern, floating luminary or similar devices powered with an engine, propellant, open flame or other feature liable to start or cause a fire shall not be projected into or across hazardous fire areas without prior approval of the fire code official.

Chapter 3 General Requirements - Section 307.5 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (R) **Section 307.5 Attendance:** Open Burning, bonfires, recreational fires and the use of portable outdoor fireplaces shall be constantly attended by an adult until the fire is extinguished. A minimum of one portable fire extinguisher complying with section 906 with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.

Chapter 3 General Requirements Mid-Rise Buildings - Section 319 Mid-Rise Buildings is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 319.1 Mid-Rise Buildings General:** All newly constructed mid-rise buildings or any mid-rise building which undergoes a complete renovation that requires the complete vacancy of the building to complete the renovation shall comply with this section.

Exceptions:

1. Buildings used exclusively as an open parking garage.
2. Buildings where all floors above the fourth floor level are used exclusively as an open parking garage.

3. Buildings such as a power plant, lookout tower, steeple, grain house, and other similar structures with non-continuous human occupancy.

(A) **Section 319.1.1 Automatic fire sprinkler systems and standpipes:** Mid-rise buildings shall be protected throughout by an automatic fire sprinkler system designed and installed in conformance with the latest edition of NFPA 13 and in accordance with the following:

A shut-off valve and a water flow alarm shall be provided for each floor. Each shut-off valve and water flow alarm shall be electronically supervised.

Mid-rise buildings shall be provided with a class I standpipe system that is interconnected with the automatic fire sprinkler system. The system shall consist of 2½-inch hose valves located in each stair enclosure on every floor level. Two hose outlets shall be located on the roof outside of each stair enclosure, which penetrates the roof. The standpipe system shall be designed, installed and tested in accordance with the latest edition of NFPA 14. Standard for the Installation of Standpipes and Hose Systems, current Edition

Fire department standpipe connections and valves serving the floor shall be within the vestibule and located in a manner so as not to obstruct egress when hose lines are connected and charged.

(A) **Section 319.1.2 Smoke detection:** Smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system installed in accordance with the latest edition of NFPA 72. The actuation of any device required by this section shall operate the emergency voice alarm signaling system and shall place into operation all equipment necessary to prevent the circulation of smoke through air return and exhaust ductwork. Smoke detectors shall be located as follows:

In every mechanical equipment, electrical, transformer, telephone equipment, unmanned computer equipment, elevator machinery or similar room and in all elevator lobbies. Elevator lobby detectors shall be connected to an alarm verification zone or be listed as a releasing device.

In the main return air and exhaust air plenum of each air conditioning system. Such device shall be located in a serviceable area downstream of the last duct inlet.

At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air conditioning system. In Group R, Division 1 and 2 occupancies, an approved smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cubic feet per minute and not serving more than 10 air inlet openings.

For Group R, Division 1 and 2 occupancies, in all corridors serving as a means of egress for an occupant load of 10 or more.

(A) **Section 319.1.3 Fire Alarm System:** An approved and listed, automatic and manual, fully addressable and electronically-supervised fire alarm system shall be provided in conformance with this code and the California Building Code.

(A) **Section 319.1.4 Emergency Voice Alarm Signaling System:** The operation of any automatic fire detector or water flow device shall automatically sound an alert tone followed by a pre-recorded voice instruction giving appropriate information and direction on a general or selective basis to the following terminal areas:

1. Elevators
2. Elevator lobbies
3. Corridors
4. Exit stairways
5. Rooms and tenant spaces
6. Dwelling units
7. Hotel guest rooms
8. Areas designated as safe refuge within the building

(A) **Section 319.1.5 Fire Command Center:** A fire command center for fire department operations shall be provided. The location and accessibility of the central control station room shall be approved by the fire department. The room shall be separated from the remainder of the building by not less than a 1-hour fire barrier. The room shall be a minimum of 96 square feet with a minimum dimension of 8 feet. It shall contain the following as a minimum:

1. Voice alarm and public address panels
2. Fire department communications panel
3. Fire alarm enunciator panel
4. Elevator enunciator panel (when building exceeds 55 feet in height)
5. Status indicators and controls for air-handling systems (stairwell pressurization)
6. Controls for unlocking stairwell doors

7. Fire pump status indicators (if required)
8. Complete building plans set
9. Elevator control switches for switching of emergency power
10. Work table

(A) **Section 319.1.6 Annunciation Identification:** Control panels in the central control station shall be permanently identified as to their function. Water flow, automatic fire detection and manually-activated fire alarms, supervisory and trouble signals shall be monitored by an approved UL-listed central monitoring station and annunciated in the central control station by means of an audible and visual indicator. For the purposes of annunciation, zoning shall be in accordance with the following:

1. When the system serves more than one building, each building shall be considered a separate zone.
2. Each floor in a building shall be considered a separate zone.
3. When one or more risers serve the same floor, each riser shall be considered a separate zone.

(A) **Section 319.1.7 Elevators and Elevator Lobbies:** shall comply with Chapter 30 of the California Building Code. At least one elevator cab shall be assigned for fire department use, which shall serve all floors of the building. This cab shall be provided with dimensions adequate to accommodate an ambulance-type stretcher in accordance with section 3002.4 of the California Building Code.

(A) **Section 319.1.8 Fire Department Communication System:** an approved two-way fire department communication system designed and installed in accordance with the latest edition of NFPA 72 shall be provided for fire department use per section 907.2.12.3.

(A) **Section 319.1.9 Means of Egress:** In addition to the requirements of Chapter 10, egress components of mid-rise buildings shall comply with sections 319.1.8.1 through 319.1.8.5.

(A) **Section 319.1.9.1 Extent of Enclosure:** Stairway enclosures shall be continuous and shall fully enclose all portions of the stairway. Exit enclosure shall exit directly to the exterior of the building or include an exit passageway on the ground floor leading to the exterior of the building. Each exit enclosure shall extend completely through the roof and be provided with a door that leads onto the roof.

(A) **Section 319.1.9.2 Pressurized Enclosures and Stairways:** All required stairways and enclosures in a mid-rise building shall be pressurized as specified in section 909. Pressurized stairways shall be designed to exhaust smoke manually when needed.

(A) **Section 319.1.9.3 Vestibules:** Pressurized stairway enclosures serving a mid-rise building shall be provided with a pressurized entrance vestibule on each floor that complies with section 909.

(A) **Section 319.1.9.4 Pressure Differences:** The minimum pressure difference within a vestibule shall be in accordance with Section 909 of the fire code.

(A) **Section 319.1.9.5 Locking of Stairway Doors:** All stairway doors that are locked to prohibit access from the interior of the stairway shall have the capability of being unlocked simultaneously, without unlatching, upon a signal from the fire control room. Upon failure of normal electrical service or activation of any fire alarm, the locking mechanism shall automatically retract to the unlocked position.

A telephone or other two-way communication system connected to an approved emergency service, which operates continuously, shall be provided at not less than every third floor in each required exit stairway vestibule.

Approved signage shall be provided in each stairwell vestibule stating doors are locked, on each floor in which entry may be made and on each floor in which a telephone is located. Hardware for locking a stairway vestibule doors shall be State Fire Marshal listed and approved by the fire code official by permit before installation. Stairway doors located between the vestibules and the stairway shaft shall not be locked.

Chapter 3 General Requirements - Section 320 Storage of Firewood is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) **Section 320.1 - General Storage of Firewood.** Firewood shall not be stored in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies or other projections or overhangs. When required by the code official, storage of firewood material stored in the defensible space shall be located a minimum of 30 feet (9 144 mm) from structures and separated from the crown of trees by a minimum of 15 feet (4 572 mm), measured horizontally. Firewood and

combustible materials not for consumption on the premises shall be stored so as to not pose a hazard.

Chapter 5 Fire Service Features - Section 501.3.1 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 501.3.1 Fire apparatus access modifications.** Plans for the modification of fire apparatus access road shall be submitted to the fire code official for review and approval prior to construction or modification of any fire apparatus road.

Chapter 5 Fire Service Features - Section 502 Definitions is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) **Section 502 Definitions**

- (A) Dead-End Road a road that has only one point of vehicular ingress/egress, including cul-de-sacs and looped roads.
- (A) Fire Apparatus Access Road a road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term that includes, but is not limited to a fire lane, public street, private street, driveway, and parking lot lane and access roadway.

Chapter 5 Fire Service Features - Section 503 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (R) **Section 503.1 Fire Apparatus Access Roads**, including private residential driveways, shall be required for every building hereafter constructed when any portion of an exterior wall of the first story is located more than 150 feet from the closest point of fire department vehicle access.
- (S) Fire apparatus access roads, including private residential driveways more than 150 feet in length, shall be provided and maintained in compliance with this section and the most recent edition and any amendments thereto, of public and private road standards as adopted by the County of San Diego (San Diego County Standards for Private Roads and Public Roads, San Diego County Department of Public Works). The fire code official may modify the requirements of this section if the modification provides equivalent access.
- (R) **Section 503.1.1 Buildings and Facilities:** Approved fire apparatus access roads shall be provided for every facility, building or portion of building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend within 150 feet of all portions

of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Exceptions: The fire code official may increase the 150 foot minimum where:

1. Fire apparatus access roads cannot be installed because of topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
2. There are no more than two Group R-3 or Group U occupancies.

(R) **Section 503.1.2 Additional Access:** The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

(R) **Section 503.1.2.1 Dead-end roads:** The maximum length of a dead-end road, including all dead-end roads accessed from that dead-end road shall not exceed the following cumulative lengths, regardless of the number of parcels served:

Zoning for Parcel Served by Dead End Road(s)	Cumulative Length of Dead End Road(s)
Parcels zoned for less than 1 acre	800 feet
Parcels zoned for 1 acre to 4.99 acres	1,320 feet
Parcels zoned for 5 acres to 19.99 acres	2,640 feet
Parcels zoned for 20 acres or larger	5,280 feet

All lengths shall be measured from the edge of the roadway surface at the intersection where the road begins to the end of the road surface at its farthest point. Where a dead-end road crosses areas of differing zoned parcel sizes, requiring different length limits, the shortest allowable length shall apply. Where parcels are zoned 5 acres or larger, turnarounds shall be provided at a maximum of 1320 foot intervals. Each dead-end road shall have an approved turnaround constructed at its terminus.

The fire code official may allow a dead-end road to exceed the maximum allowable length pursuant to section 104.8 provided the fire code official makes expressed findings in writing.

(A) **Section 503.1.4 High-piled Storage:** Fire department vehicle access to buildings used for high-piled combustible storage shall comply with the applicable provisions of Chapter 32.

(R) **Section 503.2 Specifications:** Fire apparatus access roads shall be installed and arranged in compliance with sections 503.2.1 through 503.8.

(R) **Section 503.2.1 Dimensions:**

- (a) Fire apparatus access roads shall have an unobstructed improved width of not less than 24 feet, except for single-family residential driveways serving no more than two single-family dwellings, which shall have a minimum of 16 feet of unobstructed improved width. Any of the following, which have separated lanes of one-way traffic: gated entrances with card readers, guard stations or center medians, are allowed, provided that each lane is not less than 14 feet wide.
- (b) All fire apparatus access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches. Vertical clearances or road widths shall be increased when, in the opinion of the fire code official, vertical clearances or road widths are not adequate to provide fire apparatus access.

Exception: Upon approval of the fire code official, vertical clearances or road width may be reduced as long as the reduction does not impair access by fire apparatus. In cases, where the vertical clearance has been reduced, approved signs shall be installed and maintained indicating the amount of vertical clearance.

(A) **Section 503.2.1.1 Road Phasing Policy-** For Single Family Dwellings on Existing Legal Parcels. The fire access roadway requirement for widening existing improved fire apparatus roadway shall be per TABLE 503.2.1.1A – PHASING POLICY - Fire Apparatus Access and will extend from the property out to the nearest public road.

TABLE 503.2.1.1A - PHASING POLICY

Fire Apparatus Access – Single Family Dwellings

Number of Parcels	Unobstructed Road width	Roadways Over 600 foot Long	Extend to Nearest Public Road
1-2	16-foot, paved	Turnouts every 400-feet	Yes
3-8	20-foot, paved	Turn-outs every 400-feet	Yes
9 or more	24-foot, paved	Not required	Yes

Auxiliary structures (non-habitable) and residential additions/remodels less than 500 square feet. The access roadway will not be required to be improved if the access roadway has already been improved to a minimum width of 20 feet. If the roadway is not 20 feet, then the roadway shall be widened per “TABLE 503.2.1.1A – PHASING POLICY – “Fire Apparatus Access,” but not greater than 20 feet. The preceding addition/remodel exception is limited to one permit (addition or remodel) per three-year period from the date of the last permit approval.

Exception: Upon approval of the fire code official, vertical clearances or road width may be reduced as long as the reduction does not impair access by fire apparatus. In cases, where the vertical clearance has been reduced approved signs shall be installed and maintained indicating the amount of vertical clearance.

(R) **Section 503.2.2 Authority to Increase Minimums:** The fire code official shall have the authority to require an increase in the minimum access road widths where the fire code official determines the minimum are inadequate for fire or rescue operations.

Sec. 503.2.3 Surface. Fire apparatus access road shall be designed and maintained to support the imposed loads of fire apparatus (not less than 75,000 lbs. unless authorized by the FAHJ) and shall be provided with an approved paved surface so as to provide all-weather driving capabilities. The paving and sub-base shall be installed to the standards specified in the County of San Diego Parking Design Manual. A residential driveway constructed of 3½" Portland cement concrete may be installed on any slope up to 20% provided that slopes over 15% have a deep broom finish

perpendicular to the direction of travel or other approval surface to enhance traction.

- (R) **Section 503.2.4 Turning Radius:** the turning radius of a fire apparatus access road shall comply with the County public and private road standards approved by the Board of Supervisors. The turning radius for a private residential driveway shall be a minimum of 28 feet, as measured on the inside edge of the improvement width or as approved by the fire code official.
- (R) **Section 503.2.5 Dead ends.** All dead-end fire access roads in excess of 150 feet in length shall be provided with approved provisions for turning around emergency apparatus. A cul-de-sac shall be provided in residential areas where the access roadway serves more than two structures. The minimum unobstructed paved radius width for a cul-de-sac in a residential area shall be 36 feet. The fire code official shall establish a policy identifying acceptable turnarounds for various project types.
- (R) **Section 503.2.6 Bridges and Elevated Surfaces:** Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits and vertical clearance limitations shall be posted at both entrances to bridges when required by the fire code official. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces, which are not designed for such use, approved barriers, approved signs or both, shall be installed and maintained when required by the fire code official.
- (A) **Section 503.2.6.1 Bridges with One Traffic Lane:** When approved by the fire code official, private bridges providing access to not more than two residential dwellings may be allowed with one, 12 - foot wide travel lane; however, it shall provide for unobstructed visibility from one end to the other and turnouts shall be provided at both ends.
- (A) **Section 503.2.7 Grade:** The gradient for a fire apparatus access roadway shall not exceed 20.0%. Grades exceeding 15.0% shall not be allowed without mitigation measures. The fire code official may require additional mitigation measures where he deems appropriate. The angle of departure and angle of approach of a fire access roadway shall not exceed 7 degrees (12 percent) or as approved by the fire

code official. The standard cross-slope shall be 2 percent; minimum cross-slope shall be 1 percent; maximum cross-slope shall be 5 percent.

(A) **Sec. 503.2.8 Roadway turnouts.** When required by the fire code official, turnouts shall be a minimum of 12 feet wide and 30 feet long with a minimum 25 foot taper on each end.

(A) **Section 503.3 Marking:** Where required by the fire code official, approved signs or other approved notices shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Signs or notices shall be maintained in a clean and legible condition at all times and is replaced or repaired when necessary to provide adequate visibility. All new public roads, all private roads within major subdivisions and all private road easements serving four or more parcels shall be named. Road name signs shall comply with County of San Diego Department of Public Works Design Standard #DS-13.

(A) **Section 503.3.1 Fire Lane Designation:** Where the fire code official determines that it is necessary to ensure adequate fire access, the fire code official may designate existing roadways as fire access roadways as provided by Vehicle Code section 22500.1 (public) or 22658(a) (private).

(R) **Section 503.4 Obstruction of Fire Apparatus Access Roads:** Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum road widths and clearances established in section 503.2.1 shall be maintained at all times.

(R) **Section 503.4.1 Traffic Calming Devices:** Roadway design features (speed bumps, speed humps, speed control dips, etc.) which may interfere with emergency apparatus responses shall not be installed on fire access roadways, unless they meet design criteria and are approved by the fire code official.

(R) **Section 503.5 Required Gates or Barricades:** The fire code official is authorized to require the installation and maintenance of gates or other approved barricades across fire apparatus access roads, trails or other access ways, not including public streets, alleys or highways. Electric gate openers, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of American Society for Testing and Materials (ASTM) F2200.

(R) **Section 503.5.1 Secured Gates and Barricades:** When required, gates and barricades shall be secured as approved by the fire code official. Roads, trails and other access ways that have been closed and obstructed in the manner prescribed by section 503.5 shall not be trespassed on or used unless authorized by the owner and the fire code official.

Exception: The restriction on use shall not apply to public officers acting within the scope of duty.

(R) **Section 503.5.2 School Fences and Gates:** School grounds may be fenced and gates therein may be equipped with locks, provided that safe dispersal areas based on three square feet per occupant are located between the school and the fence. Such required safe dispersal areas shall not be located less than 50 feet from school buildings.

Every public and private school shall conform to Education Code section 32020, which states:

The governing board of every public school district and the governing authority of every private school, which maintains any building used for the instruction or housing of school pupils on land entirely enclosed (except for building walls) by fences or walls, shall, through the cooperation of local law enforcement and fire protection agencies having jurisdiction of the area, provide for the erection of gates in these fences or walls. The gates shall be of sufficient size to permit the entrance of ambulances, police equipment and fire-fighting apparatus used by law enforcement and fire protection agencies. There shall be no less than one access gate and there shall be as many of these gates as needed to ensure access to all major buildings and ground areas. If these gates are equipped with locks, the locking devices shall be designed to permit ready entrance by the use of chain or bolt-cutting devices.

(R) **Section 503.6 Security Gates:** No person shall install a security gate or security device across a fire access roadway without the fire code official's approval. All gates providing access from a road to a driveway shall be located a minimum of 30 feet from the nearest edge of the roadway and the driveway width shall be 36 feet wide at the entrance on roadways of 24 feet or less of the traffic lane(s) serving the gate. An automatic gate across a fire access roadway or driveway shall be equipped with an approved emergency key-operated switch overriding all command functions and opening the gate. A gate accessing more than four residences or residential lots

or a gate accessing hazardous institutional, educational or assembly occupancy group structure, shall also be equipped with an approved emergency traffic control-activating strobe light sensor or other device approved by the fire code official, which will activate the gate on the approach of emergency apparatus with a battery back-up or manual mechanical disconnect in case of power failure. An automatic gate shall meet fire department policies deemed necessary by the fire code official for rapid, reliable access. An automatic gate serving more than one dwelling or residential lot in existence at the time of adoption of this chapter is required to install an approved emergency key-operated switch or other mechanism approved by the fire code official, at an approved location, which overrides all command functions and opens the gate. A property owner shall comply with this requirement within 90 days of receiving written notice to comply. Where this section requires an approved key-operated switch, it may be dual-keyed or equipped with dual switches provided to facilitate access by law enforcement personnel. Electric gate openers, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

Chapter 5 Fire Service Features - Section 505 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(R) **Section 505.1 Address Numbers:** Approved numbers and/or addresses shall be placed on all new and existing buildings and at appropriate additional locations as to be plainly visible and legible from the street or roadway fronting the property from either direction of approach. Said numbers shall contrast with their background, and shall meet the following minimum standards as to size: 4" high with a 1/2 " stroke for residential buildings, 6" high with a 1/2" stroke for commercial and multi-residential buildings, 12" high with a 1" stroke for industrial buildings. Additional numbers shall be required where deemed necessary by the fire code official, such as rear access doors, building corners, and entrances to commercial centers. The fire code official may establish different minimum sizes for numbers for various categories of projects.

(A) **Section 505.3 Easement Address Signs:** All easements, which are not named differently from the roadway, from which they originate, shall have an address sign installed and maintained, listing all street numbers occurring on that easement, located where the easement intersects the named roadway. Minimum size of numbers on that sign shall be 4 inches in height with a minimum stroke of 3/8", and shall contrast with the background.

(A) **Section 505.4 Map Directories:** A lighted directory map, meeting current fire department standards, shall be installed at each driveway entrance to multiple unit residential projects and mobile home parks, where the numbers of units in such projects exceed 15.

(A) **Section 505.5 Response Map Updates:** Any new development, which necessitates updating of emergency response maps by virtue of new structures, hydrants, roadways or similar features, shall be required to provide map updates in a format (PDF and/or CAD format as approved by the FAHJ) or compatible with current department mapping services, and shall be charged a reasonable fee for updating all response maps.

Chapter 5 Fire Service Features - Section 506 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(R) **Section 506.1 Key Boxes:** Where access to or within a structure or an area is unduly difficult because of secured openings or where immediate access is necessary for life saving or firefighting purposes, the Fire code official is authorized to require a key box to be installed in an accessible location. The key box shall be a type approved by the fire code official and shall contain keys to gain necessary access as required by the fire code official.

(A) **Section 506.1.3 Emergency Key Access:** All central station-monitored fire detection systems and fire sprinkler systems shall have an approved emergency key access box on site in an approved location. The owner or occupant shall provide and maintain current keys for the structure(s) for fire department placement in the box, and shall notify the fire department in writing when the building is re-keyed.

Chapter 5 Fire Service Features - Section 507 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) **Section 507.2 Type of water supply.** Water supply may consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems, as approved by the fire code official, capable of providing the required fire flow in a reliable manner. In setting the requirements for fire flow, the fire code official shall follow section 507.3 or Appendix B of the County Fire Code, or the standard published by the Insurance Services Office, "Guide for Determination of Required Fire Flow".

(A) **Section 507.2.1 Private fire service mains.** Private fire service mains and appurtenances shall be installed in accordance with NFPA 24.

(A) **Section 507.2.2 Water Tanks Table 507.2.2A** - Water storage tanks, when permitted by the Fire code official, shall comply with Table No. 507.2.2A and installed in accordance with (NFPA) 22

WATER STORAGE TANKS Table No. 507 .2.2A

Building Square Feet	Gallons Per Minute Water Flow	Capacity Gallons	Duration Minutes
Up to 1,500	250	5,000	20
Over 1,500	250	10,000	40
When exposure distance is one hundred feet (100') or less from adjacent property, or where additional hazards or higher fire flow exists, the required water storage may be modified by the fire code official.			

- (R) 1. Tank bottom elevation shall be equal to or higher than the fire department connection on the premises. Regardless of domestic use, all tanks shall be equipped with a device that will ensure that the tank contains the designated amount of water for fire flow duration as determined by the fire department. Tank size may be increased to serve multiple structures on a single parcel.
- (R) 2. Supply outlet shall be at least four inches in diameter from the base of the tank to the point of outlet at the fire department connection. The fire department connection shall be provided with an approved means of controlling water flow. The fire department connection shall be at least one four-inch National Standard Thread (male), reduce to one 2 ½-inch National Standard Thread (Male). Additional outlets may be required.
- (R) 3. Location of fire department outlet to be determined on the plot plan when submitted to the fire department. Consideration will be given to topography, elevations, and distance from structures, driveway access, prevailing winds, etc.
- (R) 4. The outlet shall be located along a fire apparatus access roadway and shall not be closer than 50 feet or further than 150 feet from the structure.
- (R) 5. All exposed tank supply pipes shall be of an alloy or other material listed for above ground use. Adequate support shall be provided.

- (R) 6. Water storage tanks shall be constructed from materials approved by the code official and installed per manufacturer recommendations.
- (R) 7. The fire code official may require any necessary information to be submitted on a plot plan for approval.
- (R) 8. Vessels previously used for products other than water shall not be permitted.
- (R) 9. The bottom of the water storage tank shall be level with or above the building pad.

(R) **Section 507.3 Fire Flow Requirements:** Fire flows shall be based on Appendix B of the 2013 California Fire Code or the standard published by the Insurance Services Office, "Guide for Determination of Required Fire Flow". Consideration should be given to increasing the gallons per minute to protect structures of extremely large square footage and for such reasons as:

1. Poor access roads
2. Grade and canyon rims
3. Hazardous brush
4. Response times greater than five minutes by a recognized fire department or fire suppression company.

In hazardous fire areas as defined in the 2013 California Fire Code as amended, the main capacity for new subdivisions shall not be less than 2,500 gallons per minute, unless otherwise approved by the fire code official.

If fire flow increases are not feasible, the fire code official may require alternative design standards such as: alternative types of construction providing a higher level of fire resistance; fuel break requirements which could include required irrigation; modified access road requirements; specified setback distances for building sites addressing canyon rim developments and hazardous brush areas; and other requirements authorized by this code and as specified by the fire code official.

(A) **Section 507.5.1 Required installations:** The location, type and number of fire hydrants connected to a water supply capable of delivering the required fire flow shall be provided on the public or private street, or on the site of the premises to be protected, or both, as required and approved by the fire code official. Fire hydrants shall be accessible to the fire department apparatus by roads meeting the requirements of Section 503. For fire safety during the construction, alteration, or demolition of a building, see Section 1412.1.

(A) **Section 507.5.1.1 Water Supplies and Fire Hydrants:** Single-family dwellings and U Occupancies: An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into or within the jurisdiction. When any portion of the facility or building protected is in excess of 500 feet (152 900 mm) from a water supply on a public street, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required flow shall be provided when required by the Fire code official.

EXCEPTION: Remodels and additions: Existing structures, which are remodeled or added to where the amount of new area does not exceed 1,500 square feet and the additional or remodeled area, is protected with an approved automatic fire extinguishing system.

In zones other than industrial, commercial and multi-family fire hydrants shall be installed in accordance with Table No. 507 .5.1.1A.

Section 507.5.1.1 - Table No. 507 .5.1.1A

Parcels ½ acre and larger:	Every 500 feet to the structure
Parcels less than ½ acre:	Every 350 feet to the structure

(A) **Section 507.5.1.1.2 Fire Hydrant Spacing:** In multi-family zones and in commercial and industrial zones, fire hydrants shall be installed at intersections, at the beginning radius of cul-de-sacs, and every 300 feet of fire access roadways, regardless of parcel size.

EXCEPTION: When improved methods of fire protection are provided, beyond those required by the Code, and accepted by the Fire code official, adjusted spacing of fire hydrants from those set forth above may be considered.

(A) **Section 507.5.1.1.3 Type of Fire Hydrants:** All fire hydrants shall be of bronze construction, including all internal parts except seats. Alternate materials may be used if approved by the Fire Marshal and the local water district having jurisdiction. The stems shall be designed and installed in a manner that will ensure that they will not be projected outward from the main body by internal water pressure due to disassembly. The number and size of fire hydrant outlets shall be as follows:

1. One 4-inch and one 2-½-inch NST outlet. (4", 2-½")
2. One 4-inch and two 2-½-inch NST outlets. (4", 2-½", 2-½")

3. In some instances, the Fire code official may require the fire hydrant(s) to have any other combination of 4 inch and 2-½ inch outlets.

(A) **Section 507.5.1.1.4 Waterline Extensions:** The Fire code official may require a waterline extension for the purpose of installing a fire hydrant if the water main is 1,500 feet or less from the property line.

(A) **Section 507.5.1.3 Hydrant for Standpipe Systems.** Buildings equipped with a standpipe system installed in accordance with section 905 shall have a fire hydrant within 100 feet of the fire department connections.

Exception: The distance shall be permitted to exceed 100 feet where approved by the fire code official.

Chapter 6 Building Services and Systems Section 603.6.6 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) **Section 603.6.6 Spark Arresters:** All structures having a chimney, flue or stovepipe attached to a fireplace, stove, barbecue or other solid or liquid fuel burning equipment or device shall have the chimney, flue or stovepipe equipped with an approved spark arrester. An approved spark arrester is a device intended to prevent sparks from escaping into the atmosphere, constructed of welded or woven wire mesh, 12 gauge thickness or larger, with openings no greater than ½ inch, or other alternative material the FAHJ determines provides equal or better protection.

Chapter 6 Building Services and Systems Section 603.8.1 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(R) **Section 603.8.1 Residential Incinerators** shall be prohibited.

Chapter 6 Building Services and Systems Section 605.11 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(R) **Section 605.11.3.3.3 Smoke ventilation.** The solar photovoltaic installation shall be designed to meet the following requirements:

- a. Arrays shall be no greater than 150 feet in distance in either axis in order to create opportunities for smoke ventilation operations.

- b. Smoke ventilation options between array sections shall be one of the following:
 - i. A pathway 8 feet or greater in width
 - ii. A 4 feet or greater in width pathway and bordering roof skylights or smoke and heat vents
 - iii. A 4 feet or greater in width pathway and bordering 4 foot by 8 foot venting cutouts every 20 feet on alternating sides of the pathway.

(R) **Section 605.11.4 Ground-mounted photovoltaic arrays.** Ground-mounted photovoltaic array installations shall meet the requirements of sections 605.11.4.1 through 605.11.4.4.

(R) **Section 605.11.4.1 Access.** Access to ground-mounted photovoltaic arrays, associated equipment structures and operations/maintenance buildings shall be per section 503.

Exception: Private residential systems where the energy generated is primarily for on-site use.

(R) **Section 605.11.4.1.1 Perimeter access roadway.** Ground-mounted photovoltaic arrays 10 acres and larger in size shall be provided with an access roadway around the perimeter of the project. The perimeter access roadway shall be installed per section 503.

(R) **Section 605.11.4.2 Fuel modification.** Combustible vegetation within the array and to a distance of 20 feet from the array and associated equipment shall be reduced to a height of no more than 6 inches. Operation/maintenance buildings shall be provided with a fuel modification zone per section 4707.2.

(R) **Section 605.11.4.3 Water supply.** Water supply for fire protection and suppression shall be provided equipment structures and operations/maintenance buildings per section 507.

Exception: Equipment shelters used solely for the equipment associated with the array when the exterior walls and roof assemblies are constructed with non-combustible materials.

(R) **Section 605.11.4.4 Identification.** Ground-mounted photovoltaic arrays with multiple equipment structures shall be provided with means of readily-identifying equipment structures. The fire code official may require a lighted directory map of the project to be installed on-site near the entrance to the facility for projects 10 or more acres in size.

Chapter 9 Fire Sprinklers systems is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) **Section 901.8.2 Fire hydrants and fire appliances.** Commercial fire sprinkler system control valves shall not be shut off after activation of the sprinkler system, no matter what the reason for the activation until the shut off is authorized by fire personnel. Fire detection systems activated by fire, smoke, heat or any other cause shall not be reset until authorized by fire personnel.

(A) **Section 902.1 Definitions** - Life Safety Sprinkler System: shall meet National Fire Protection Association Standards 13, 13-D and 13-R latest addition, and Rancho Santa Fe Fire Protection District installation policies as appropriate.

(R) **Section 903.2 Automatic Sprinkler Systems** - Where required: Approved automatic Fire sprinkler systems are required in all new structures. For the purpose of fire-sprinkler systems, buildings separated by less than ten (10) feet from adjacent buildings shall be considered as one building. Fire barriers, partitions and walls, regardless of rating, shall not be considered as creating separate buildings for purposes of determining fire sprinkler requirements. Mezzanines shall be included in the total square footage calculation.

(A) **Section 903.2.2.1 Automatic Fire Sprinkler System - Additions:** an automatic sprinkler system installed in accordance section 903.2 may be required to be installed throughout structures when the addition is more than 50% of the existing building or when the altered building will exceed a fire flow as calculated per section 507.3. The fire code official may require an automatic sprinkler system be installed in buildings where no water main exists to provide the required fire flow or where a special hazard exists such as: poor access roads, grade and canyon rims, hazardous brush and response times greater than 5 minutes by a fire department. When Fire Sprinklers are required under additions this shall meet the entire structure or structures shall be equipped with fire sprinklers. The Fire code official may require that other protective measures be taken based on existing conditions and/or potential hazards.

EXCEPTION:

(D) Exception (1) is hereby deleted and replaced with the following:

(R) (1) Group U occupancies not greater than 500 square feet, when building lies more than 20 feet from an adjacent structure or property line.

(A) (2) Accessory buildings/barns not greater than 1000 square feet, and not otherwise considered enclosed buildings/structures, which are of ignition

resistant construction or as determined by the Chief to not present a significant fire hazard.

- (A) (3) Agricultural buildings constructed of wood or metal frames, over which fabric or similar material is stretched, which are specifically used as green houses are exempt from the automatic sprinkler requirements unless physically connected to other structures.

(A) **Section 903.2.2.2 Automatic Fire System Remodels or Reconstructions:** an automatic sprinkler system installed in accordance section 903.2.1 may be required if the scope of work includes significant modification to the interior or roof of the building, and the cost of installation of an automatic sprinkler system does not exceed 15 percent of the construction costs of the remodel. When Fire Sprinklers are required under remodels and reconstructions this shall mean the entire structure or structures shall be equipped with fire sprinklers. The fire code official may require that other protective measures be taken based on existing conditions and/or potential hazards.

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

Exceptions:

1. Automatic sprinkler systems with less than 100 fire sprinklers protecting one-family and two-family dwellings.
2. Limited area systems serving fewer than 20 sprinklers.
3. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the automatic sprinkler system and a separate shutoff valve for the automatic sprinkler system is not provided.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.

6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, pre-action and deluge sprinkler systems that are sealed or locked in the open position.

Chapter 9 Section 907.2.11.4 Power Sources (Smoke Alarms) is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) **Section 907.2.11.4 Power Source:** In new construction and in newly classified Group R-3.1 occupancies, required smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than those required for over current protection. Smoke alarms may be solely battery operated when installed in existing buildings; or in buildings without commercial power; or in buildings, which undergo alterations, repairs, or additions regulated by Section 907.2.11.4.1.

(A) **Section 907.2.11.4.1 Additions, Alterations or Repairs to Group R Occupancies:** when the valuation of an addition, alteration, or repair to Group R occupancy exceeds \$1,000 and a permit is required, or when one or more sleeping rooms are added or created in existing Group R occupancies, smoke alarms shall be installed in accordance with Section 907.2.11.

Chapter 22 Motor Fuel – Dispensing Facilities and Repair Garages Section 2205, 2206, and 2210 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) **Section 2201.1 Scope.** Automotive motor-fuel dispensing facilities, marine motor fuel-dispensing facilities, fleet vehicle motor fuel-dispensing facilities and repair garages shall be in accordance with this chapter and the California Building Code, California Plumbing Code and the California Mechanical Code. These operations shall include both operations that are accessible to the public and private operations. Whenever this chapter imposes a requirement that applies to Class IIIA liquids that same requirement shall also apply to Class III liquids.

Chapter 28 Lumber Yards & Woodworking Facilities

Chapter 28 Section 2808 Storage and Processing of Wood Chips, hogged materials, fines, compost and raw product associated with yard waste and recycling facilities is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 2808.1 General.** The storage and processing (mulching, composting) of wood chips, hogged materials, fines, compost and raw product produced from yard waste, debris and recycling facilities shall be in accordance with section 2808.
- (A) **Section 2808.2 Definitions:** for the purpose of section 2808, certain words and phrases are defined and certain provisions shall be construed as set forth herein, unless it is apparent from the context that a different meaning is intended.
 - (A) Aerated Static Pile means a composting process that uses an air distribution system to either blow or draw air through the pile. Little or no pile agitation or turning is performed.
 - (A) Chipping and Grinding means an activity that mechanically reduces the size of organic matter.
 - (A) Composting Operations means an operation that is conducted for the purpose of producing compost. Shall be by means of one or a combination of the following processes used to produce a compost product: static pile, windrow pile, or aerated static pile.
 - (A) Green Waste includes but is not limited to such organic material as yard trimmings, plant waste, manure, untreated wood wastes, paper products, and natural fiber products.
 - (A) Hogged Materials means mill waste consisting mainly of hogged bark but may include a mixture of bark, chips, dust, or other by-product from trees and vegetation.
 - (A) Mulching is the process by which mixed green waste is mechanically reduced in size for the purpose of making compost.
 - (A) Static Pile means a composting process that is similar to the aerated static pile except that the air source may or may not be controlled.
 - (A) Windrow Composting Process means the process in which compostable material is placed in elongated piles. The piles or windrows are aerated and/or mechanically turned on a periodic basis.

(A) Wood Chips means chips of various species produced or used in chipping and grinding operations.

(A) **Section 2808.3 Permit Required.** A permit shall be obtained from the fire department prior to engaging in the operation and storing processed of wood chips, hogged material, fines, compost and raw product in association with yard waste and similar material recycling facilities. (See Division II Chapter 1 section 105.6.19.1) The permit shall be renewed on an annual basis, or shall be limited to such period of time as designated by the Fire code official. Permits shall not be transferable and any change in use, location, occupancy, operation, or ownership shall require a new permit.

(A) **Section 2808.4 Financial Assurances for Cost Recovery.** A security bond or other approved form of financial commitment may be required by the fire code official to be posted, in an amount determined by the Fire code official, not less than \$25,000.00, nor more than \$100,000.00, depending on the size of operation. The security bond or financial commitment shall reimburse the fire department for expenses incurred in any emergency response and/or enforcement action by the fire department to protect the public from fire or hazardous substances related to the operation. The security bond/financial commitment shall be returned to the operator in a timely fashion upon satisfactory closure of the operation as determined by the Fire code official.

(A) **Section 2808.5 Operational and Emergency Plans.** The following operational and emergency action plans shall be submitted to and be approved by the Fire code official prior to initiating operation.

1. Operational Plan: At a minimum, the Operational Plan must include site layout, pile dimensions, fire access, water supply, site security. Site operations, temperature monitoring, rotation, diversion plan.
2. Emergency Plan: At minimum, the Emergency Plan must include; Operator fire response actions, fire dispersal area, emergency equipment operator callback, initiation of incoming diversion plan. All plans shall define the equipment necessary to process and handle the materials.

(A) **Section 2808.6 Notification of Fire Department.** All fires shall be reported to the fire department immediately upon discovery.

- (A) **Section 2808.7 Equipment Operator Emergency Callback.** The operator shall implement and maintain a plan for rapid equipment operator response to the site. The maximum response time to the site shall be within one hour of a fire department notification. The following equipment shall be on site and staffed with skilled operators: bulldozer, loaders, and heavy-duty equipment necessary to mitigate a fire. Notification procedure shall be maintained operational 24 hours a day, seven days a week. Notification may be by pager activation or telephone answering service or other approved means.
- (A) **Section 2808.8 Incoming Waste Diversion Plan.** The operator shall develop a diversion plan for incoming green waste for implementation in the event of equipment failure or other inability to process and distribute green waste. The plan shall prevent stockpiling of waste on the site and unauthorized depositing of waste on or near the site. The operator shall initiate the diversion based on criteria in the Operational and Emergency Plan without further direction from the fire department.
- (A) **Section 2808.9 Unprocessable or Non-Green Waste Material.** All green waste that cannot be processed on-site, such as stumps and fibrous plants, shall be immediately removed from the feedstock, stored in roll-off containers or bins and be removed from the facility on a weekly basis. All plastic bags shall be removed prior to shredding material.
- (A) **Section 2808.10 Fire Access Roadway.** A fire access roadway shall be provided to the site and on-site as approved by the Fire code official. It shall have a minimum width based upon site material handling equipment and an approved driving surface as approved by the Fire code official. In no case shall the fire access roadway be less than 20 feet wide.
- (A) **Section 2808.11 Site Storage:** Sites shall be reasonably level and be solid ground or other approved all-weather surface.
- (A) **Section 2808.12 Combustible Vegetation Control:** The operator shall clear any combustible material, weeds, brush, trees or other vegetation (including mulch) that is, or could become, dry and could be capable of transmitting fire, from within fifty (50) feet of raw green waste and mulch piles. Clearance shall be to bare earth or approved pavement. Individual growing trees within that distance may remain with approval of the Fire code official.
- (A) **Section 2808.13 Pile Separation:** Piles shall be separated from adjacent piles and property lines by fire department access roadways.

(A) **Section 2808.14 Sizes of Piles:** Pile height, width, and length shall be limited to criteria approved by the Fire code official, based in part on the site material handling equipment. In no case shall the piles exceed 12 feet in height, 100 feet in width and 200 feet in length.

(A) **Section 2808.15 Static Pile Protection:** Interior pile temperatures shall be monitored and recorded on a regular basis per the Operational Plan. Internal pile temperatures must be taken at 2/3 the pile height, 12 to 24 inches from the surface with a probe-type thermometer. Readings shall be made at not greater than 50-foot intervals along the length of the pile.

Temperatures above 158 degrees F are known to adversely affect microbial decomposition and are considered excessive. Infrared thermometers may be used to monitor for hot spots at the surface, but are not a substitute for internal probe measurement and documentation.

Once windrows exceed 170 degrees F, the windrows must be reduced in size, be rotated, and be monitored daily until temperatures drop below 158 degrees F. All green waste stockpiles shall be re-mixed as necessary to alleviate any fire due to spontaneous combustion or temperatures above 170 degrees.

Windrows shall be visually inspected on a regular basis. Once fires have been detected in any windrows at a site, this visual inspection shall be a minimum daily requirement. Daily inspections shall continue until the threats of fire no longer exist, and the Fire code official approves suspension.

All temperature and pile-handling records shall be kept on file at the site and be made available for inspection by fire department personnel. Data shall include date, time, temperature, specific location, and person conducting measurement.

(A) **Section 2808.16 Firefighting water supplies and storage.** Firefighting water supplies shall conform to sections 2808.16.1 or 2808.16.2. Firefighting Water Supplies and Storage

(A) **Section 2808.16.1 Public Water Supply:** the operator shall provide and maintain approved fire hydrants and waterline mains as required by the Fire code official. Water lines may be approved aboveground lines supplied from a reliable water supply with adequate protection against impact and fire flow reaction. Hydrant spacing shall be at 400-foot intervals along primary fire access roadways. Fire flow at the hydrant(s) shall be least 1000 gallons per minute at 20 psi. Duration of the required fire flow shall be as determined by the Fire code official.

- (A) **Section 2808.16.2 Private Water Supply:** above-groundwater storage tanks may be installed when authorized by the Fire code official where public water supply is not adequate to meet fire flow requirements. Volume and duration of the required fire flow shall be as determined by the Fire code official.
- (A) **Section 2808.17 Material Handling Equipment:** equipment used on all piles should be of a type that minimizes compaction. All vehicles operating on or around the piles shall have a Class A fire extinguisher of a minimum 2-A rating, in addition to the Class B rating appropriate for the vehicles. Approved material-handling equipment shall be available during firefighting operations for moving wood chips, hogged material, compost, and raw product produced from yard waste and wood fines.
- (A) **Section 2808.18 General Safety Rules for Site Equipment Maintenance:** welding or cutting torch operations shall be conducted a minimum of 30 feet from combustible materials. A fire watch shall be provided to detect fire, and to operate fire-extinguishing equipment throughout the welding or cutting operation and thirty-minutes (30) thereafter. Refueling and on-site maintenance shall meet California Fire Code Chapter 22 & 34 - Flammable and Combustible Liquids, and all other applicable fire code requirements.
- (A) **Section 2808.19 Site Security:** pile storage areas shall be surrounded with approved fencing. Fences shall be a minimum of 6 feet in height.
- (A) **Section 2808.20 Smoking and Open Burning Prohibited:** The operator shall prohibit smoking and open flame on the operational site, including smoking within vehicles. Approved signs shall be clearly and prominently posted and shall be enforced by the site operators. No open burning will be allowed on site.

Chapter 32 High Piled Combustible Storage

Chapter 3206.2 General Fire Protection and Life Safety Features is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (D) **Section 3206.2 Exception J** of Table 3206.2 of the California Fire Code is deleted.

Chapter 33 Fire Safety Construction and Demolition

Chapter 3318 Fire Safety During Construction and Demolition is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 3318.1 Fuel Modification Zone During Construction:** any person doing construction of any kind, which requires a permit under this code or the County Building Code shall install a fuel modification zone prior to allowing any combustible material to arrive on the site and shall maintain the zone during the duration of the project.

Chapter 49 Requirements for the Wildland-Urban Interface Areas is hereby added (A) or Revised (R) or deleted (D) to the Building/Fire Code portion of the California Buildings Standards Code to read as follows:

- (A) **Section 4902.1 Definitions** is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:
- (A) Building Official means the Director of Planning and Development Services or any person appointed or hired by the Director to administer or enforce the County's planning and construction standards. The building official duties shall include plan checking, inspections and code enforcement.
- (A) Combustible Vegetation means material that in its natural state will readily ignite burn and transmit fire from native or landscape plants to any structure or other vegetation. Combustible vegetation includes dry grass, brush, weeds, litter or other flammable vegetation that creates a fire hazard.
- (A) Defensible Space is an area either natural or man-made, where material capable of allowing a fire to spread unchecked has been treated, cleared or modified to slow the rate and intensity of an advancing wildfire and to create an area for fire suppression operations to occur.
- (A) Fire Protection Plan (FPP) is a document prepared for a specific project or development proposed for the wildland-urban interface fire area that describes ways to minimize and mitigate potential loss from wildfire exposure, with the purpose of reducing impact on the community's fire protection delivery system.
- (R) Fire Hazard Severity Zones are geographical areas designated pursuant to California Public Resources Code sections 4201 through 4204 and classified as Very High, High and Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code sections 51175 through 51189.

The California Code of Regulations, Section 1280 entitles maps of these geographical areas as "Maps of the Fire Hazard Severity Zones in the State Responsibility Area of California."

- (A) Fuel Break is an area, strategically located for fighting anticipated fires, where the native vegetation has been permanently modified or replaced so that fires burning into it can be more easily controlled. Fuel breaks divide fire-prone areas into smaller areas for easier fire control and provide access for firefighting.
- (A) Local Agency Very High Fire Hazard Severity Zone means an area designated by a local agency upon the recommendation of the Cal Fire Director pursuant to Government Code sections 51177(c), 51178 and 51189 that is not a State Responsibility Area and where a local agency, city, county, city and county, or district is responsible for fire protection.
- (A) Open Space Easement means any right or interest in perpetuity or for a term for years in open-space land, as that term is defined in Government Code sections 51065(a), acquired by the County, a city or a nonprofit organization where the instrument granting the right or interest imposes restriction on use of the land, to preserve the land for public use or enjoyment of the natural or scenic character of the land.
- (A) Open Space Preserve means open-space land, as that term is defined in Government Code section 65560(b), for the preservation of natural resources, managed production of resources, outdoor recreation, public health and safety, buffer for a military installation or the protection of cultural resources.
- (A) Slope is the variation of terrain from the horizontal; the number of feet, rise or fall per 100 feet, measured horizontally, expressed as a percentage.
- (A) State Responsibility Area means lands that are classified by the Board of Forestry pursuant to Public Resources Code section 4125 where the financial responsibility of preventing and suppressing forest fires is primarily the responsibility of the State.
- (A) Tree Crown means the primary and secondary branches growing out from the main stem, together with twigs and foliage.
- (A) Wildfire is any uncontrolled fire spreading through vegetative fuels that threaten to destroy life, property, or resources as defined in Public Resources Code sections 4103 and 4104.
- (A) Wildfire Exposure is one or a combination of radiant heat, convective heat, direct flame contact and burning embers being projected by vegetation fire to a structure and its immediate environment.
- (A) Wildland-Urban Interface Fire Area is a geographical area identified by the state as a "Fire Hazard Severity Zone" in accordance with the Public Resources Code sections 4201 through 4204 and Government Code sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires.

Chapter 49 Wildland-Urban Interface Area Designation - Section 4902.2 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (R) **Section 4902.2 Declaration:** The legislative body shall declare the Wildland Interface Areas within the jurisdiction. The Wildland Urban Interface Areas shall be based on the findings of fact. The Wildland Urban Interface Area boundary shall be any geographic area mapped or otherwise identified by the State or local jurisdiction as a High Hazard, or Very High Fire Severity Zone, or as set forth by the Rancho Santa Fe Fire Protection District. (See Attachment B for map) When the type and condition of vegetation, topography, weather, and structure density, which potentially increases the probability of vegetation conflagration, exists, such area shall be considered a Very High Fire Severity Zone.

Chapter 49 Fire Protection Plan - Section 4903 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 4903.1 When required:** The Department of Planning and Land Use or the Fire Authority Having Jurisdiction may require an applicant for a parcel map, subdivision map, specific plan or major use permit for any property located in a wildland-urban interface fire area to submit a Fire Protection Plan (FPP) as part of the approval process.
- (A) **Section 4903.2 Content:** The FPP shall consider location, topography, geology, aspect, combustible vegetation (fuel types), climatic conditions and fire history. The plan shall address the following in terms of compliance with applicable codes and regulations including but not limited to: water supply, vehicular and emergency apparatus access, travel time to nearest serving fire station, structural ignitability, structure set back, ignition-resistive building features, fire protection systems and equipment, impacts to existing emergency services, defensible space and vegetation management.

The FPP shall be prepared as prescribed in the County of San Diego Land Use and Environment Group "Guidelines for Determining Significance and Report Format and Content Requirements for Wildland Fire and Fire Protection" document.

Chapter 49 Wildfire Protection Building Construction - Section 4905.4 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) Section 4905.4 Wildland Urban Interface Special Building Construction Regulations
are located in the 2013 California Building Code and amendments for the County of San Diego for the following construction features:

1. Standards of Quality
 - a) SFM Standard 12-7A-1 Exterior Wall Siding and Sheathing
 - b) SFM Standard 12-7A-2 Exterior Windows
 - c) SFM Standard 12-7A-3 Horizontal Projections
 - d) SFM Standard 12-7A-4 Decking
 - e) SFM Standard 12-7A-5 Ignition-resistant Materials
2. Roofing Covering & Valleys - Class "A" Very High Fire Hazard Areas
 - a) Roof gutters –Prevent debris accumulation
 - b) Replacement – more than 50% or more 2,500 square feet roof area
3. Skylights – One pane tempered Glass
4. Attic Ventilations – prevent intrusion of flame and embers into the attic
5. Eave or cornice vents –not allowed in exterior overhang areas
 - a) Eave protection –shall be protected by ignition resistant materials
6. Exterior Walls- shall be noncombustible, ignition-resistant materials
 - a) Exterior wall covering – shall extend from the top the foundation and terminate at roof
 - b) Repair/Replacement of exterior wall –less than 30 feet from property line
 - c) Exterior wall Vents - prevent intrusion of flame and embers into the structure
7. Exterior glazing and window walls –one pane tempered on dual pane windows
8. Exterior door assemblies –approved noncombustible construction or 20 minute rated
9. Decking and other appendages – structural supports and framing members shall be non-combustible
 - a) Decking surface – non-combustible, fire treated wood, one-hour fire-resistant
 - b) Testing of alternative decking materials
 - c) Deck remodel or repair -50% or 1,000 square feet
10. Under-floor and appendages and floor projections – maintain same ignition-resistant integrity of exterior walls.
 - a) Unenclosed under-floor protection – under-floor areas enclosed to the grade
11. Insulation – Paper-faced insulation prohibited in attics or ventilated spaces
12. Fences and other structures less than five from a building – non-combustible

Chapter 49 Defensible Space - Section 4907 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

(A) **Section 4907.1 Structure Setbacks from Property Lines:** The building official shall establish the minimum setbacks for locating a structure on a lot in a wildland-urban interface fire area. The setbacks may be greater than the minimum setbacks provided in the County Zoning Ordinance, when necessary to protect a structure from an unreasonable hazard from a wildfire.

(A) **Section 4907.1.1 General Fire Setbacks:** Buildings and structures shall be setback a minimum of 30 feet from property lines and open space easements unless the County Zoning Ordinance requires a greater minimum. When the property line abuts a roadway the setback shall be measured from the centerline of the roadway.

Exception: When both the building official and the FAHJ determine that the hazard from a wildland fire is not significant or when the terrain, parcel size or other constraints on the parcel make the required setback infeasible, the building official may allow the setback to be less than 30 feet from the property line when allowed by the Zoning Ordinance.

(A) **Section 4907.1.2 Fire Setbacks Adjacent Protected Areas:** Buildings and structures shall be setback a minimum of 100 feet from any property line adjacent a national forest, state park, open space preserve or other protected biological resources. This setback may be reduced when additional mitigation measures are employed that are satisfactory to both the FAHJ and the building official.

(A) **Section 4907.1.3 Structure Set Back from Top of Slope:** a single story structure shall be setback a minimum 15 feet (4,572 mm) horizontally from top of slope to the farthest projection from a roof. A single story structure shall be less than 12 feet above grade. A two- story structure shall be setback a minimum of 30 feet (9,144 mm) measured horizontally from top of slope to the farthest projection from a roof. Structures greater than two stories may require greater setback, which is based upon a 2-to1 slope.

(A) **Section 4907.2 Fuel Modification:** A fuel modification zone shall be required around every building that is designed primarily for human habitation or use or a building designed specifically to house farm animals. Decks, sheds, gazebos, freestanding open-sided shade covers and similar accessory structures less than 250 square feet and 30 feet or more from a dwelling, and fences more than five feet from a dwelling,

are not considered structures for the establishment of a fuel modification zone. A fuel modification zone shall comply with the following:

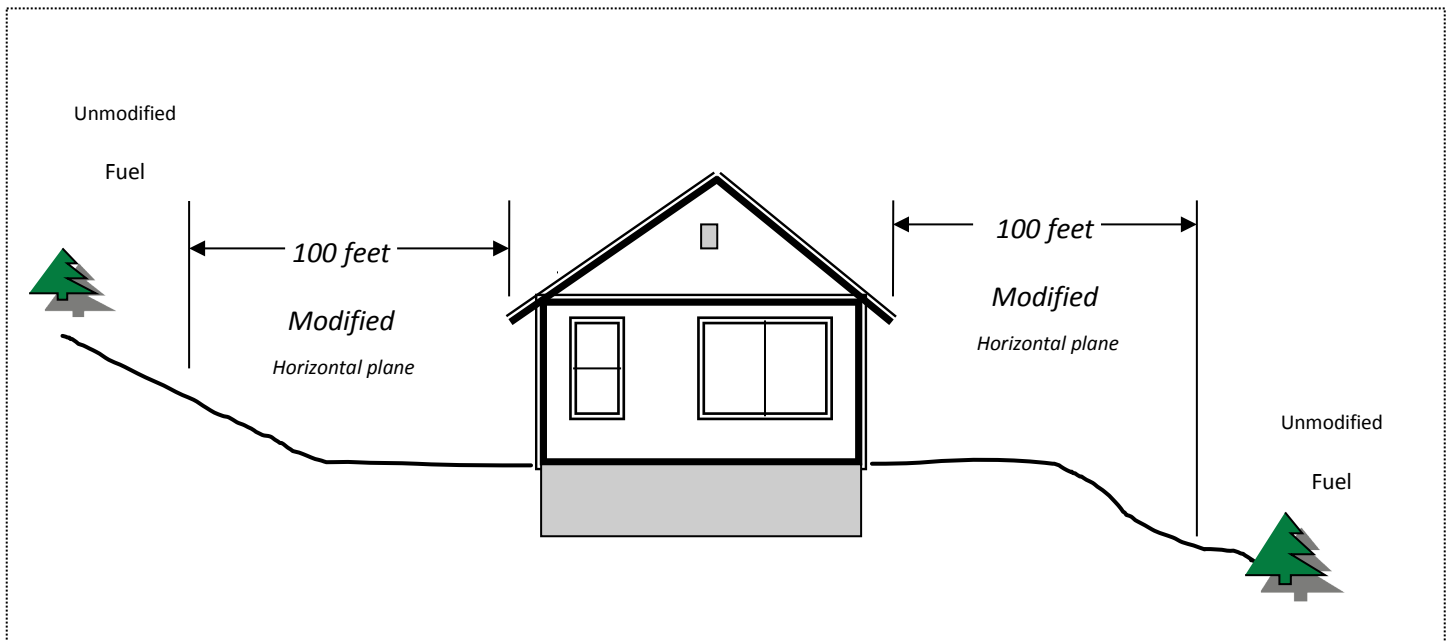
- (a) When a building or structure in a hazardous fire area is located 100 feet or more from the property line the person owning or occupying the building or structure shall maintain a fuel modification zone within 100 feet of the building or structure. The area within 50 feet of a building or structure shall be cleared of vegetation that is not fire resistant and re-planted with fire-resistant plants. In the area between 50 to 100 feet from a building all dead and dying vegetation shall be removed. Native vegetation may remain in this area provided that the vegetation is modified so that combustible vegetation does not occupy more than 50% of the square footage of this area. Weeds and annual grasses to be mowed to a height of 4" to 6". Any chipping that is done on site should be spread not to exceed 6" in height. Trees may remain in both areas provided that the horizontal distance between crowns of adjacent trees and crowns of trees and structures is not less than 10 feet. See Figure 4907.2.
- (b) When a building or structure in a hazardous fire area is setback less than 100 feet from the property line, the person owning or occupying the building or structure shall meet the requirements in subsection (a) above, to the extent possible, in the area between the building or structure and the property line.
- (c) The building official and the FAHJ may provide lists of prohibited and recommended plants.
- (d) The fuel modification zone shall be located entirely on the subject property unless approved by the FAHJ. This required fuel modification zone may be reduced as allowed in subsection (b) above or increased as required by a fire protection plan.
- (e) When the subject property contains an area designated to protect biological or other sensitive habitat or resource, no building or other structure requiring a fuel modification zone shall be located so as to extend the fuel modification zone into a protected area.

FIGURE 4907.2 MEASUREMENTS OF FUEL MODIFICATION DISTANCE

- (A) **Section 4907.2.1 Fuel Modification of Combustible Vegetation from Sides of Roadways.** The FAHJ may require a property owner to modify combustible vegetation in the area within 20 feet from each side of the driveway or a public or private road adjacent to their property to establish a fuel modification zone. The FAHJ has the right to enter private property to insure the fuel modification zone requirements are met. Exception: The FAHJ may reduce the width of the fuel modification zone if it will not impair access

Exception: The FAJH may reduce the width of the fuel modification zone if it will not impair access.

- (A) **Section 4907.2.2 Community Fuel Modification:** The FAHJ may require a developer, as a condition of issuing a certificate of occupancy, to establish one or more fuel modification zones to protect a new community by reducing the fuel loads adjacent to a community and structures within it. The developer shall assign the land on which any fuel modification zone is established under this section to the association or other common owner group that succeeds the developer as the person responsible for common areas within the community.



- (A) **Section 4907.2.2.1 Land Ownership:** Once a fuel modification zone has been established under section 4907.2.2 the land on which the zone is located shall be under the control of an association or other common ownership established in perpetuity, for the benefit of the community to be protected.

- (A) **Section 4907.3 Maintenance of Defensible Space:** Any person owning, leasing, controlling, operating or maintaining a building or structure required to establish a fuel modification zone pursuant to section 4907.2 shall maintain the defensible space. The FAHJ may enter the property to determine if the person responsible is complying with this section. The FAHJ may issue an order to the person responsible for maintaining the defensible space directing the person to modify or remove non-fire resistant vegetation from defensible space areas, remove leaves, needles and other dead vegetative material from the roof of a building or structure, maintain

trees as required by section 4907.3.1 or to take other action the FAHJ determines is necessary to comply with the intent of sections 4903 et seq.

- (A) **Section 4907.3.1 Trees:** Crowns of trees located within defensible space shall maintain a minimum horizontal clearance of 10 feet for fire resistant trees and 30 feet for non-fire resistive trees. Mature trees shall be pruned to remove limbs $\frac{1}{3}$ the height or 6 feet, whichever is less, above the ground surface adjacent to the trees. Dead wood and litter shall be regularly removed from trees. Ornamental trees shall be limited to groupings of 2-3 trees with canopies for each grouping separated horizontally as described in Table 4907.3.1

TABLE 4907.3.1

DISTANCE BETWEEN TREE CANOPIES

Percent of Slope	Required Distances Between Edge of Mature Tree Canopies (1)
0 to 20	10 feet
21 to 40	20 feet
41 plus	30 feet

1. Determined from canopy dimensions as described in Sunset Western Garden Book (Current Edition)

- (A) **Sec. 4907.3.2 Orchards, groves or vineyards:** All orchards, groves and vineyards shall be kept in a healthy state and free of combustible debris and vegetation, including dead or downed trees. A 10-foot firebreak shall be cleared around the perimeter of any orchard, grove or vineyard. Dead grasses between rows of trees or vines shall be mowed.

- (A) **Section 4907.3.3 Eucalyptus Forests and Oak Woodlands:** all forests and woodlands shall be kept in a healthy state and maintained as described below. The forest or woodlands shall be free of all dead, dying, or diseased trees (excluding tree stumps no higher than six inches above the ground). Dead, dying, or diseased trees shall include insect infested trees, no longer living, in the last stages of growth or infected by a pathogen of any type. If combustible vegetation is located underneath a tree's drip line, the lowest branch shall be at least three times as high as the understory brush or grasses, or ten feet, whichever is greater. This will reduce the build-up of "ladder" fuels. Firewood shall be neatly stacked and shall have a minimum of 30 feet of clearance (no vegetation) around the entire firewood storage area. Debris and trimmings

produced by the removal process shall be removed from the site, or if left, shall be converted into mulch by a chipping machine and evenly dispersed to maximum depth of six inches.

(A) **Section 4907.4 Landscape Plans:** Landscape Plans are required for all residential custom homes, production tract homes, multi-family residential, and commercial buildings. Landscape plans shall be submitted and approved by the Fire District prior to the framing inspection. Landscape plan submittals shall include, at a minimum, a readable scale, the delineation of 100-foot fuel modification zone, the existing vegetation, and all irrigated areas, a plant legend with both botanical and common names and identify all plant material symbols.

(A) **Section 4907.4.1 Landscaping Requirements:** plant materials used shall be approved by the Fire District for plant palette. Landscape plans shall be in accordance with the following criteria.

1. (A) All non-fire resistive trees, including conifers, palms, pepper trees, and eucalyptus, species, shall be planted and maintained so that the tree's drip line at maturity is a minimum 30 feet from any combustible structure. All fire resistive tree species shall be planted and maintained at a minimum of 10 feet from the tree's drip line to any combustible structure.
2. (A) For streetscape plantings, all non-fire resistive trees shall be planted so that the center of the tree trunk is 10 feet from edge of curb. Fire resistive trees can be planted 10 feet from edge of curb to center of tree trunk. Care should be given to the tree's form selected so that the tree canopy will not encroach into the roadway, nor produce a closed canopy effect.
3. (A) Limit planting of large unbroken masses especially trees and large shrubs. Groups should be two to three trees maximum, with mature foliage of any group separated horizontally by at least 10 feet, if planted on less than 20 percent slope, and 20 feet, if planted on greater than 20 percent slope.
4. (A) If shrubs are located underneath a tree's drip line, the lowest branch should be at least three times as high as the understory shrubs or 10 feet, whichever is greater.
5. (A) Existing trees can be pruned 10 feet away from roof, eave, or exterior siding, depending on the tree's physical or flammable characteristics and the building construction features.
6. All tree branches and palm fronds shall be removed within 10 feet of a fireplace chimney or outdoor barbecue.

- (A) **Section 4907.4.2 Landscape Installation:** all landscaping shall be installed prior to the final inspection for issuance of certificate of occupancy.

Chapter 49 Construction methods for exterior wildfire exposure - Section 49 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (R) **Section 4905.2 Construction Methods for Exterior Wildfire Exposure:** the construction methods for exterior wildfire exposure in a wildland-urban interface fire area shall be as provided in Chapter 7A of the County Building Code or section R327 of the County Residential Code. (See Section 4905.4 for Special regulation regarding the Wildland-Urban-Interface Fire Areas)

Chapter 56 Explosives and Fireworks Applicability - Section 56 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 5601.2 Applicability.** This section shall apply to the manufacture, possession, storage, sale, transportation and use of explosives and blasting agents and to any blasting operation in the unincorporated area of the County. The Sheriff shall be the Issuing Officer for any permit under this section, but may delegate the responsibility to any fire chief in the unincorporated area to issue a permit in the geographical area of the chief's jurisdiction. The issuing officer shall determine whether a blast is a major blast or a minor blast under this section. A minor blast is subject to all conditions of this section except the inspection requirements.

- (A) **Section 5601.2.1 Definitions.** The following terms are defined in section 202:

BLASTER.
BLASTING AGENT.
BLASTING OPERATION.
BLASTING PERMIT.
BLAST SITE.
EXPLOSIVES PERMIT.
INSPECTOR.
MAJOR BLASTING.
MINOR BLASTING.

- (A) **Section 5601.2.2. Application.** Application for a permit required by this section shall be in the form required by the Issuing Officer.

- (A) **Section 5601.2.3 Permit requirements.** No person shall conduct blasting in the unincorporated area of the County without an explosives permit issued under this chapter. A person applying for an explosives permit shall, in addition to demonstrating compliance with fire safety requirements, shall also comply with all County requirements for any building permits, grading permits, use permits, encroachment permits and all other entitlements to use property, including zoning requirements and any determination under the Zoning Ordinance of nonconforming status. The applicant shall be responsible for providing proof of all necessary approvals when requested by the Issuing Officer.
- (A) **Section 5601.2.4 Permit conditions.** The Issuing Officer may impose conditions and procedures as are deemed reasonably necessary to protect the public health and safety based upon the facts and circumstances of a particular blasting operation. The permit conditions shall be in writing. Failure to comply with any permit condition is grounds for revocation of the permit. A blaster may request the Issuing Officer release the blaster from any permit condition if circumstances have changed that make the condition no longer applicable. In addition to complying with the County blasting regulations, a blaster shall also comply with blasting regulations of neighboring jurisdictions, for any blasting operations outside of the unincorporated area of the County conducted in conjunction with a project within the unincorporated areas of the County.
- (A) **Section 5601.2.5 Insurance and indemnification required.** As an additional condition for obtain an explosives permit the applicant shall submit: (1) a certificate of insurance evidencing that the blaster has obtained a general liability insurance policy which includes coverage for explosion, collapse and underground property damage from an insurer satisfactory to the Issuing Officer, that is in effect for the period covered by the permit, written on an "occurrence" basis, in an amount of not less than \$500,000 per each occurrence, naming the County as an additional insured and providing that the policy will not be canceled or terminated without 30 days prior written notice to the County and (2) an agreement signed by the blaster agreeing to defend, indemnify and hold the County and its agents, officers and employees harmless from any claims or actions arising from the issuance of the permit or any blasting activity conducted under the permit.
- (A) **Section 5601.2.6 Blasting hours.** Blasting shall only be allowed Monday through Saturday, between the hours of 7:00 a.m. and 6:00 p.m. or ½ hour before sunset, whichever occurs first, unless special circumstances warrant another time or day and the Issuing Officer grants approval of the change in time or day.
- (A) **Section 5601.2.7 Additional operational requirements.** The owner of any property in the unincorporated area of the County on which any blasting is intended to occur, shall give, or cause to be given, a one-time notice in writing, for any proposed blasting to the local fire agency and dispatch center and to all residences, including

mobile homes, and businesses within 600 feet of any potential major blast location or 300 feet from any potential minor blast location. The notice shall be given not less than 24 hours, but not more than one week, before a blasting operation and shall be in a form approved by the Issuing Officer. The minimum 24-hour notice requirement may be reduced to a lesser period but not less than one hour if the Issuing Officer determines that special circumstances warrant the reduction in time. Adequate precautions shall be taken to reasonably safeguard persons and property before, during and after blasting operations. These precautions shall include:

1. The blaster shall retain an inspector to inspect all structures, including mobile homes, within 300 feet of the blast site before blasting operations, unless inspection is waived by the owner and/or occupant. The inspector shall obtain permission of the owner and/or occupant before conducting the inspection. The inspection shall be only for the purpose of determining the existence of any visible or reasonably recognizable preexisting defects or damages in any structure. Waiver of inspection shall be in writing signed by the owner and/or occupant. Refusal to allow inspection shall also constitute a waiver. The inspector shall notify the owner and/or occupant of the consequences of refusing an inspection shall include a refusal in the summary report filed with the Issuing Officer. The blaster shall request an inspector conduct post-blast inspections upon receipt of a written complaint of property damage if the complaint is made within 60 days of completion of blasting operations. If the blaster has knowledge of alleged property damage independent of the written complaint, the blaster shall also retain an inspector to conduct a post-blast inspection.
2. An inspector shall complete and sign pre-blast inspection reports identifying all findings and inspection waivers. The blaster shall retain the inspection reports for three years from the date of the blasting and upon a complaint of alleged damage the blaster shall immediately file a copy of the report with the Issuing Officer and provide a copy to the complainant. If there is a change in the blasting contractor after blasting has commenced on a project, a re-inspection shall be conducted in accordance with the preceding paragraph before the new blasting contractor undertakes any additional blasting.
3. The blaster shall retain an inspector to conduct a post blast inspection of any structure for which a written complaint alleging blast damage has been received. A written report of the inspection shall be immediately filed with the Issuing Officer and provided to any person who made a complaint for damages.
4. The blaster shall allow any representative of the Issuing Officer to inspect the blast site and blast materials or explosives at any reasonable time.

5. If the blaster wants a representative of the Issuing Officer to witness a blasting operation the blaster shall make a request with the Issuing Officer at least 12 hours before the blast. The blaster shall confirm the request for a witness with the Issuing Officer at least one hour before the blast. The blaster shall be responsible for any cost incurred by the Issuing Officer in having a representative witness the blast.
 6. The blaster shall notify the Issuing Officer on the day of a scheduled blasting operation not less than one hour before blasting.
 7. All major blasting operations shall be monitored by an approved seismograph located at the nearest structure within 600 feet of the blasting operation. All daily seismograph reports shall be maintained by the blaster for three years from the blasting.
- (A) **Section 5601.2.8 Seizure of illegal items.** The Sheriff may seize at the owner's expense, all explosives, ammunition or blasting agents, which are illegally manufactured, sold, offered or exposed for sale, delivered, stored, possessed or transported in violation of this chapter.
- (A) **Section 5601.2.9 Violations for false or misleading information.** It shall be unlawful and a violation of this chapter for any person to provide false or misleading information or documentation to the County or any of its officers or employees or to any fire department, fire protection district, fire company or legally formed volunteer fire department, or its officers or employees in the unincorporated area of the County, having jurisdiction over any aspect of the explosives or blasting permit process or blasting operations.
- (A) **Section 5601.2.10 Fees.** A person applying to the Sheriff to be approved as a blaster or inspector, as defined in this section, shall pay an application fee to the Sheriff. A person applying for an explosives permit under this section shall pay the fee established by the Sheriff with the application. The amount of any fee required by this chapter shall be determined by the Sheriff on the basis of the full costs involved in processing an application.
- (A) **Section 5608.1 General.** Outdoor fireworks displays, use of pyrotechnics before a proximate audience and pyrotechnic special effects in motion picture, television, theatrical and group entertainment productions shall comply with California Code of Regulations, Title 19, Chapter 6 and County Code sections 32.101 et seq. The FAHJ Sheriff shall be the Issuing Officer for a permit for a fireworks display.

- (A) **Section 5608.1.1 Scope.** The possession, manufacture, sale, storage, use and display of fireworks are prohibited in the unincorporated area of the County except as provided in County Code sections 32.101 et seq.

Chapter 57 Flammable and Combustible Liquids - Section 57 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (D) **Section 5705.2.4 Class I, II and III Liquids Exception:** 4 is deleted.

- (R) **Section 5706.2.5.2.1 Limitations on Tanks for Gravity Discharge:** Gravity dispensing of Class I or II liquids or Class III liquids that are heated up to or above their flash points is prohibited. Dispensing devices for flammable and combustible liquids shall be of an approved type. Approved pumps taking suction from the top of the tank shall be used. Flammable or combustible liquids shall not be dispensed by a device that operates through pressure within a storage tank. Air or oxygen shall not be used to pressurize an aboveground tank.

- (A) **Section 5706.2.8.2 Tank Vehicle as a Substitute for Permanent Tank Prohibited:**
The use of a tank vehicle in a stationary manner as a substitute for an approved above-ground or below-ground fuel tank is prohibited.

Chapter 61 Liquefied Petroleum Gases - Section 6107.5 is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (A) **Section 6107.5 Securing Tanks to Ground (LPG)** – Tanks shall be secured to prevent the tank from rolling or moving when required by the FAHJ.

Chapter 80 Referenced Standards NFPA 13D is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:
The following referenced standard of the California Fire Code is revised to read:

- (R) Section 5.1.1.1 Spare sprinkler heads. Spare fire sprinkler heads (one of each type or as approved by the FAHJ) wrench, operation and maintenance instructions shall be provided in the vicinity of the riser.
- (R) Section 7.1.5 Pressure-regulating valve. When available system water pressure exceeds 150 psi, a listed/approved pressure-regulating valve shall be installed at the system riser. Such valves shall be adjusted to restrict the outlet pressure to a maximum of 150 psig at any flow or no flow.

Exception: At the discretion of the FAHJ the contractor may install a listed/approved pressure relief valve, piped to the system main drain, set to relieve the pressure at 150 psig, provided the available supply pressure does not exceed 150 psig.

When such valves are installed submittal documents must include manufacturer information sheets along with charts showing the dimensions (size) and flow characteristics inlet and outlet pressures at various flows for the type of valve being installed, and the valve shall be included in the design calculations.

- (R) Section 7.2.5 Inspector Test. Each sprinkler system shall have a ½" or larger test connection with a threaded keyless valve. The valve shall be remote to the riser, located on the building exterior about five 5 feet above final grade and shall be remote from the riser. It shall be labeled with a permanent plate with minimum ¼" lettering, contrasting with background, and stating: "INSPECTOR TEST". (Pre-assembled riser assemblies with a built-in Drain/Test valve shall not be accepted for inspector test valve unless approved by the FAHJ.)

Exception: Automatic fire sprinkler systems for manufactured homes installed at the factory may have the inspectors test valve located at the location as designed at the factory.

- (A) Section 7.3.3 Pressure gauge. A listed 300 psi pressure gauge shall be permanently installed at the riser.
- (R) Section 7.6 Alarms. A water flow switch shall be provided and located on the sprinkler riser above the check valve and main drain and shall actuate an audible fire alarm signal bell. The water flow switch shall be a retarding type with a delay between 30-45 seconds before activation of the signal bell. Alarm bell shall have a minimum diameter of 8 inches and be mounted on the exterior in the vicinity of the master bedroom. The alarm bell shall be clearly audible in all bedrooms with intervening doors closed.
- (A) Section 8.2.5.4.5 Heads Cored in Beams. Heads cored in beams are allowed in beams not greater than 8" in depth. Beams greater than 8" in depth shall result in heads being placed in the pockets or bays formed by the beams.
- (R) Section 8.3.2. Sprinklers are not required in bathrooms where the area does not exceed 55 sq. ft. unless there is door exiting directly to the outside, and the walls and ceilings

including behind fixtures, are of noncombustible or limited combustible materials providing a fifteen-minute thermal barrier.

(R) Section 8.3.3 Sprinklers shall not be required in clothes closets, linen closets, and pantries that meet all of the following conditions:

- (1) The area of the space does not exceed 24 ft² (2.2 m²).
- (2) The shortest dimension does not exceed 3 ft. (0.9 m).
- (3) The walls and ceilings are surfaced with noncombustible or limited-combustible materials as defined in NFPA 220.
- (4) The closet does not contain any type of electrical items such as light fixtures, electrical outlets or low voltage equipment.

(R) Section 8.3.4. Sprinklers shall be installed in garages, carports and similar structures unless they meet the exception in 903.2.2.1. Covered patios, decks, balconies or similar projection that extend 10 feet or more from the structure will require adequate fire sprinkler coverage.

(A) Section 8.3.10 Sprinklers shall be installed in saunas and wine rooms.

(R) Section 8.5.1.1. Where the fuel-fired equipment is above all of the occupied areas of the dwelling unit, at least one quick-response intermediate temperature sprinkler shall be installed above the equipment.

(A) Section 10.2.4.1 3-Head Calculation. When the slope of the ceiling is greater than the listing of an available sprinkler head, the system shall be designed to provide the hydraulic demand of 3 sprinkler heads.

(A) Section 10.2.5 Pressure Cushion. The system shall be designed 10% below available water source pressure during peak usage.

(R) Section 11.2.1.1 Hydrostatic Tests. Where a fire department connection is not provided, the system shall be hydrostatically tested at 200 psi. Manufactured or mobile homes shall be tested at 100 psi or as specified on the manufacture's nameplate.

(A) Section 12.3.3 Systems out of service. When sprinkler systems are shut-off or otherwise inoperative for periods greater than 48 hours for repair of service, the FAHJ must be notified immediately.

Appendix "B" Fire-Flow Requirements for Buildings is hereby added (A), revised (R) or deleted (D) to the Building/Fire Code portion of the California Building Standards Code to read as follows:

- (R) **B103.3 Areas Without Water Supply Systems** – For information regarding water supplies for firefighting purposes in rural areas and suburban areas in which adequate and reliable water supplies do not exist, the Fire code official is authorized to utilize provisions in Appendix B of this code, NFPA 1142 or the standard published by the Insurance Services Office document entitled "Guide for Determination of Required Fire Flow."
- (D) **B106 Reference Standards** Delete reference to ICC IWUIC-06 and NFPA 1142-01 to the Fire Code portion of the California Building Standards Code.

Section 3

The geographic limits referred to in certain sections of the 2013 California Fire Code are established as follows:

- (R) Section 5704.2.9.6.1. The geographic limit in which the storage of Class I and Class II liquids in above-ground tanks outside of buildings is prohibited is hereby established as the jurisdictional limits of the Rancho Santa Fe Fire Protection District.
Exceptions:
 - 1. In areas zoned for mixed, general or high impact industrial uses.
 - 2. Crankcase draining may be stored in specially constructed above-ground storage tanks, approved by the fire code official, with a maximum capacity of 550 gallons. These tanks may be located within a building when the fire code official deems appropriate and the container meets U.L. Standard 2085. Containers shall be installed and used in accordance with their listing and provisions shall be made for leak and spill containment. In no case shall storage be allowed on residential or institutional property.
 - 3. With the fire code official's approval, Class I and II liquids may be stored above ground outside of buildings in specially designed, approved and listed containers, which have features incorporated into their design, which mitigate concerns for exposure to heat, ignition sources and mechanical damage. Containers shall be installed and used in accordance with their listing, and provisions shall be made for leak and spill containment. The fire code official may disapprove the installation of these containers when in his or her opinion their use presents a risk to life or property.

(R) Section 5706.2.4.4. The geographic limit in which the storage of Class I and Class II liquids in above-ground tanks is prohibited is hereby established as the jurisdictional limits of the Rancho Santa Fe Fire Protection District.

Exceptions:

1. In areas zoned for other than residential uses, when approved by the FAHJ.
2. Crankcase draining may be stored in specially constructed above-ground storage tanks, approved by the fire code official, with a maximum capacity of 550 gallons. These tanks may be located within a building when the fire code official deems appropriate and the container meets U.L. Standard 2085. Containers shall be installed and used in accordance with their listing, and provisions shall be made for leak and spill containment. In no case shall storage be allowed in residential or institutional property.
3. With the fire code official's approval, Class I and II liquids may be stored above ground in specially designed, approved and listed containers, which meet U.L. Standard 2085. Containers shall be installed and used in accordance with their listing, and provisions shall be made for leak and spill containment. The fire code official may disapprove the installation of such containers when in his opinion their use presents a risk to life or property.

(R) Section 5806.2. The geographic limits in which the storage of flammable cryogenic fluids in stationary containers is prohibited is hereby established as the jurisdictional limits of the Rancho Santa Fe Fire Protection District, except for areas zoned for mixed, general or high impact industrial uses.

(R) Section 6104.2. The geographic limits in which the bulk storage of liquefied petroleum gas is prohibited for the protection of heavily populated and congested areas is hereby established as the jurisdictional limits of the Rancho Santa Fe Fire Protection District, except for areas zoned for mixed, general or high impact industrial uses.

Exception: Bulk tanks with a maximum aggregate capacity of 30,000 gallons water capacity for above-ground storage of underground distribution to residential areas, where the storage and distribution meets Fire Code requirements as determined by the FAHJ.

Section 4 – Repealing

That Ordinance 2011-01, an Ordinance Of The Rancho Santa Fe Fire Protection District, which Adopts The California Fire Code, 2010 Edition, with Certain Amendments, the 2009 International Fire Code, and National Fire Protection Association Standards 13, 2010 Edition,

13-D, 2010 Edition, and 13-R, 2010 Edition and all other ordinances or parts of ordinances in conflict herewith are hereby repealed.

That Ordinance 2011-01, an Ordinance of the Rancho Santa Fe Fire Protection District, which Adopts the International Wildland–Urban Interface Code, 2006 Edition with certain Amendments has been included into the 2013 California Fire Code Chapter 49, Requirements for Wildland-Urban Interface Areas with certain Amendments and all other ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 5 – Validity Unconstitutional

That if any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The Board of Directors hereby declares that it would have passed this ordinance, and each section, subsection, clause, or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, and phrases be declared unconstitutional.

Section 6 – Liability

That nothing in this ordinance or in the Fire Code hereby adopted shall be construed to affect any suit or proceeding impending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinance hereby repealed as cited in Section 4 of this ordinance; nor shall any just or legal right or remedy of any character be lost, impaired or affected by this ordinance.

Section 7 – Published

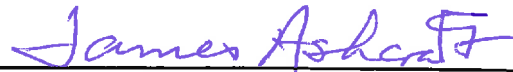
That the Clerk of the Board of Directors is hereby ordered and directed to cause this ordinance to be published. First read at a regular meeting of the Board of Directors of the Rancho Santa Fe Fire Protection District of the County of San Diego, California, held on the 11th day of February 2015. A public hearing was held March 11, 2015 adopted and ordered published in the manner required by law at the hearing and meeting on the March 11, 2015 by the following roll call vote:

AYES:	Ashcraft, Malin, Stine, Tanner
NOES:	
ABSENT:	Hillgren
ABSTAIN:	

Upon passage, the Secretary of the Board shall transmit a copy of this Ordinance to the California Building Standards Commission pursuant to Health and Safety Code section 17958.7.

Section 8 – Effective

That this ordinance and the rules, regulations, provisions, requirements, orders, and matters established and adopted hereby shall take effect and be in full force and effect 30 days from and after the date of its final passage and adoption.



James Ashcraft
President

ATTEST



KARLENA RANNALS
Secretary

FINDINGS

FOR REVISION OF THE RANCHO SANTA FE FIRE PROTECTION DISTRICT AMENDMENTS TO THE 2013 CALIFORNIA FIRE CODE OF THE CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 9

As required by Health and Safety Code section 17958 the Rancho Santa Fe Fire Protection District does herewith make express findings that amendments to the 2013 California Fire Code are necessary for the protection of the public health, safety, and welfare due certain climatic, topographic, or geological features existing in the County of San Diego.

The following matrix lists the Rancho Santa Fe Fire Protection District amendments and the corresponding express findings. Minor editorial changes or typographical corrections to the Fire Code are not shown in these findings. The full texts of the proposed Rancho Santa Fe Fire Protection District amendments are shown in Rancho Santa Fe Fire Protection District Fire Code.

Additional Findings for Chapter 49

Requirements for Wildland-Urban Interface Fire Areas

As required by Health and Safety Code section 17958 the Rancho Santa Fe Board of Directors does herewith make express findings that amendments to the California Building Standards Code are necessary for the protection of the public health, safety and welfare due certain climatic, topographic or geological features existing in the County of San Diego.

Definitions

Climate The average course or condition of the weather at a particular place over a period of many years, as exhibited in absolute extremes, means and frequencies of given departures from these means (i.e., of temperature, wind velocity, precipitation and other weather elements).

Topography The configuration of landmass surface, including its relief (elevation) and the position of its natural and man-made features that affect the ability to cross or transit a terrain.

Geography A science that deals with the earth and its life, especially the description of land, sea, air, and the distribution of plant and animal life including man and his

industries with reference to the mutual relations of these diverse elements. Webster's Third New California Dictionary

Climatic Considerations

There are two types of climates: macro and micro. A macro climate affects an entire region and gives the area a general environmental context. A micro climate is a specific variation that could be related to the other two factors, topography and geography. A micro climate may cover a relatively small area or be able to encompass an entire community, as opposed to another community in the same county.

Climatic consideration should be given to the extremes, means, and anomalies of the following weather elements:

1. Temperatures
2. Relative humidifies
3. Precipitation and flooding conditions
4. Wind speed and duration of periods of high velocity
5. Wind direction
6. Fog and other atmospheric conditions.

Topographic Considerations

Topographic considerations should be given to the presence of the following topographical elements:

1. Elevation and ranges of elevation
2. Location of ridges, drainages and escarpments
3. Percent of grade (slope)
4. Location of roads, bridges and railroads
5. Other topographical features, such as aspect exposure

This information becomes an important part of creating an analysis of urban-wildland areas because topography and slope are key elements (along with fuel type) that create the need for specific ignition-resistance requirements in this code.

Geographic Considerations

Geography should be evaluated to determine the relationship between man-made improvements (creating an exposure) and factors such as the following:

1. Fuel types, concentration in a mosaic and distribution of fuel types
2. Earthquake fault zone

3. Hazardous material routes
4. Artificial boundaries created by jurisdictional boundaries
5. Vulnerability of infrastructure to damage by climate and topographical concerns

Fuel types are the final component of the findings that suggest the need for identifying urban-wildland areas in a jurisdiction.

MATRIX OF FINDINGS

2013 California Fire Code Amendments

Chapters or Sections	Page Number	Finding Number(s)
Division II Appendix Chapter 1 Administration		
Section 101.5 Validity	9	All
Section 102.13 Repeal Conflicting Ordinance	10	All
Section 104.12. Cost Recovery	11	All
Section 104.12.1 Reimbursement	11	All
Section 105.3.9 Expense Recovery	11	All
Chapter 2 Definitions	14-19	All
Chapter 3 General Requirements		
Section 307.5 General Precautions Against fire	19	4,5,7,8&9
Section 319 Mid-Rise Buildings	19-23	1-10
Section 320 General Storage of Firewood	23	9
Chapter 5 Fire Service Features- Section 502 Definitions	23	1,2,3,5,6, & 8
Section 503.1 General – Fire Apparatus Access Road	24	5,6,7,8,&9
Section 503.1.1 Buildings and Facilities	25	5,6,7,8,&9
Section 503.1.2 Additional Access	25	5,6,7,8, 9
Section 503.1.2.1 Dead-end roads	25	5,8,&9

Chapters or Sections	Page Number	Finding Number(s)
Section 503.1.4 High-piled storage	26	4
Section 503.2 Specifications for apparatus roads	26	1,5,6,7,8,9
Section 503.2.1 Dimensions	26	1,5,6,8,&10
Section 503.2.1.1 Road Phasing Policy	27	1,5,6,7,8,&9
Section 503.2.2 Authority to increase minimums	27	5,6,7,8,&9
Section 503.2.3 Surface	27	5,6,7,8,&9
Section 503.2.4 Turning Radius	28	5,8, & 9
Section 503.2.5 Dead Ends	28	5,8, & 9
Section 503.2.6 Bridges and elevated surfaces	28	5,6,7,8, &9
Section 503.6.1 Bridges with one traffic lane	28	5,6,7,8,&9
Section 503.2.7 Grade	28	6,7
Section 503.2.8 Roadway Turnouts	29	5,6,7,8,&9
Section 503.3. Marking of Fire Apparatus Access Roads	29	2,5,8, & 9
Section 503.3.1 Fire lane designation	29	5,6,7,8,&9
Section 503.4 Obstruction of fire apparatus access roads	29	5,6,7,8,&9
Section 503.4.1 Roadway Design Features	29	1,5,6,7,8,&10
Section 503.5 Required gates or barricades	29	5,6,7,8,&9
Section 503.5.1 Secured gates and barricades	30	5,6,7,8,&9
Section 503.5.2 School fences and gates	30	5,6,7,8,&9
Section 503.6. Security Gates	30	6,7,&8
Section 505.1 Address Numbers	31	7

Chapters or Sections	Page Number	Finding Number(s)
Section 505.3 Easement Address Signs	31	7
Section 505.4 Map Directories	32	3,5,7,&9
Section 505.5 Response Map Updates	32	All
Section 506.1 Key Boxes	32	All
Section 506.1.3 Emergency Key Access	32	All
Section 507.2.2 Water Storage Tanks	33	4,5
Section 507.3 Fire Flow requirements	34	1,3,4,5,9,10
Section 507.5.1 Required Installation	34	All
Section 507.5.1.1 Water Supplies and Fire Hydrants	35	All
Section 507.1.1.2 Fire Hydrant Spacing	35	All
Section 507.5.1.1.3 Type of Fire Hydrants	35	All
Section 507.5.1.2 Water Line Extensions	36	4,5,9
Section 507.5.1.3 Hydrant for Standpipe Systems	36	All
Chapter 6 Building Services and Systems		
Section 603.8.1 Residential Incinerators	36	All
Section 605.11 SOLAR PHOTOVOLTAIC POWER SYSTEMS	36	3,10,& 12
Chapter 9 Fire Protection Systems		4,8,&9
Section 902.1 Life Safety Sprinkler System	38	4,5,
Section 903.2 Where Required	38	All
Section 903.2.1 Additions	38	All
Section 903.2.1.2 Remodels or Reconstruction	39	All

Chapters or Sections	Page Number	Finding Number(s)
Section 903.4 Sprinkler system monitoring and alarms	39	4
Section 907.2.11.4 Power Sources (Smoke Detectors)	40	9
Section 907.2.11.5 Additions, Alterations (Smoke Detectors)	40	9
Chapter 28 Lumber Yards & Wood Working Facilities		
Section 2808.1 General	41	All
Section 2808.2 Definitions	41	All
Section 2808.3 Permit Required	42	All
Section 2808.4 Financial Assurances for Cost Recovery	42	All
Section 2808.5 Operational & Emergency Plans	42	All
Section 2808.6 Notification of Fire Department	42	All
Section 2808.7 Equipment Operator Emergency Callback	43	All
Chapter 22 Motor Fuel – Dispensing Facilities and Repair Garages	40	
Sections 2205,2206,2210 Class IIIA to Class III	41	All
Chapter 33 Fire Safety Construction & Demolition	45	
Section 3318.1 Fuel Modification During Construction	46	4,5,7,8, & 9
Chapter 49 Requirements for the Wildland-Urban Interface Areas	46	
Section 4902.1 Definitions	47	All
Section 4902.2 Declaration of VHSZ	48	12,13
Section 4903 Fire Protection When Required	48	12,13
Section 4905.4-A 1-12 Wildfire Protection Building Construction	48	Reference to CBC

Chapters or Sections	Page Number	Finding Number(s)
Section 4907 Defensible Space		All
4907.1 Structure setback from property line	50	All
Section 4907.1.1 General fire setbacks Section	50	All
Section 4907.1.2 Fire Setbacks adjacent protected areas	50	All
Section 4907.1.3 Structure setback from top of slope	50	All
Section 4907.2 Fuel Modification	50	All
Section 4907.2.1 Fuel Modification from sides of roadways	51	All
Section 4907.2.2 Community fuel modification	52	All
Section 4907.2.2.1 Land ownership	52	All
Section 4907.3 Maintenance of defensible space	52	All
Section 4907.3.1 Trees	53	All
Section 4907.3.2 Orchards, groves or vineyards	53	All
Section 4907.4 Landscape plans	54	All
Section 4907.4.1 Landscaping Requirements	54	All
Section 4907.4.2 Landscape Installation	54	All
Section 4905.2 Construction methods for exterior wildfire exposure	55	All
Chapter 56 Explosives & Fireworks Applicability	55	
Section 5601.2 Applicability	55	All
Section 5601.2.1 Definitions	55	All
Section 5601.2.2 Application	55	All
Section 5601.2.3 Permit Requirements	55	All

Chapters or Sections	Page Number	Finding Number(s)
Section 5601.2.4 Permit Conditions	56	All
Section 5601.2.5 Insurance & Indemnification Required	56	All
Section 5601.2.6 Blasting Hours	56	1,2,3,5,6,7,8,9, 11 & 12
Section 5601.2.7 Additional Operational Requirements	56	All
Section 5601.2.8 Seizure of Illegal Items	58	All
Section 5601.2.9 Violations for False or Misleading Information	58	1,2,3,5,6,7,8,9, 11 & 12
Section 5601.2.10 Fees	58	All
Section 5608.1 General	58	All
Section 5608.1.1 Scope	58	All
Chapter 57 Flammable & Combustible Liquids	59	All
Section 5705.2.4 Class I, II, III Liquids Exception	59	All
Section 5706.2.5.2.1 Limitations on Tanks for Gravity Discharge	59	3,5,6,7,&8
Section 5706.2.8.2 Tank Vehicle as a Substitute for Permanent Tank Prohibited	59	2,3
Chapter 60 Liquefied Petroleum Gases	60	
Section 6107.5 Securing Tanks to the Ground (LPG)	60	All
Chapter 80 Referenced Standards NFPA 13D	59-62	All
Section 3		
Section 5704.2.9.6.1 Class I and Class II Flammable Liquids	62	All
Section 5706.2.4.4. Class I and II Storage in Residential	63	All

Chapters or Sections	Page Number	Finding Number(s)
Section 5806.2. Flammable Cryogenic Fluids	63	All
Section 6104.2 LPG Storage Limits	63	All
Appendix "B" Delete B106 Referenced standards	63	Deleted
Delete Appendix "H" Hazardous Materials Management Plans (No Amendments to appendix		Deleted

Findings for the Fire Code

Finding 1

The Rancho Santa Fe Fire Protection District is situated on the slopes of and at the base of the Coastal Mountains, with drainage from the eastern portion of the district, including the San Dieguito River and Escondido Creek, which when flooded, could result in conditions rendering fire departments vehicular traffic access unduly burdensome or impossible.

Further, the flood conditions described above carries the potential for overcoming the ability of the fire department to aid or assist in fire control, evacuations, rescues and the emergency tasks demands inherent in such situations. The potential for the aforementioned flooding conditions to result in limiting fire department emergency vehicular traffic, with resulting overtaxing fire department personnel, may further cause a substantial or total lack of protection against fire for the buildings and structures located within the jurisdiction.

Finding 2

The Rancho Santa Fe Fire Protection District is situated near several known major faults, each capable of generating earthquakes of significant magnitude. These include the Rose Canyon Fault, the Coronado Banks, and the Silver Strand Faults, located generally west of the District and the Elsinore Fault, the Agua Caliente Fault, located east of the District. These faults are subject to becoming active at any time; the Rancho Santa Fe Fire Protection District is particularly vulnerable to devastation should such an earthquake occur.

The potential effects of earthquake activity include isolating the Rancho Santa Fe Fire Protection District from the surrounding area and restricting or eliminating internal circulation due to the potential for collapsing of highway overpasses and underpasses, along with other bridges in the district, or an earth slide, and the potential for vertical movement rendering surface travel unduly burdensome or impossible.

Finding 3

San Diego County Highway S6 bisects the Rancho Santa Fe Fire Protection District. Transportation vehicles carrying known toxic, flammable, explosive, and hazardous materials heavily travel this highway.

The potential for release or threatened release of a hazardous material along this route and others within the district is likely given the volume transported daily. Incidents of this nature will normally require all available emergency response personnel to prevent injury and loss of life and to prevent, as far as practicable, property loss. Emergency personnel responding to such aforementioned incidents may be unduly impeded and delayed in accomplishing an emergency response as a result of this situation. With the potential result of undue and unnecessary risk to the protection of life and public safety and, in particular, endangering residents and occupants in buildings or structures without the protection of automatic fire sprinklers.

Finding 4

The Rancho Santa Fe Fire Protection District and Southern California are semi-arid regions and experience water shortages from time to time. Those shortages can have a severely adverse effect on water availability for firefighting. Fires starting in sprinkled buildings are typically controlled by one or two sprinkler heads, flowing as little as 13 gallons per minute.

Hose streams used by engine companies on well-established structure fires operate at about 250 gallons per minute each, and the estimated water need for a typical residential fire is 1,250 to 1,500 gallons per minute, according to the Insurance Service Office and the California Fire Code.

Under circumstances such as, lack of water infrastructure, earthquakes, multiple fires and wildland fires within a community, the limited water demands needs of residential fire sprinklers would control and extinguish many fires before they spread from building to wildland. In such a disaster, water demands needed for conflagration firefighting probably would not be available.

Finding 5

The topography of the Rancho Santa Fe Fire Protection District presents problems in delivery of emergency services, including fire protection. Hilly terrain has narrowed, winding roads with little circulation, much of these hills are covered with natural vegetation preventing rapid access and orderly evacuation. Much of these hills are covered with highly non-fire-resistive natural vegetation. In addition to access and evacuation problems, the terrain makes delivery of water extremely difficult. Some hill areas are served by water pump systems subject to failure in fire, high winds, earthquake, and other power failure situations. This would only allow domestic gravity feed water from tanks and not enough water for firefighting.

Finding 6

Due to the topography in much of the Rancho Santa Fe Fire Protection District, it is very important that roadways be named and identified in order to facilitate emergency response.

Finding 7

Due to the topography in much of the Rancho Santa Fe Fire Protection District, steep, narrow and winding roads and areas of heavy brush are common. These features make it difficult for emergency response personnel to easily, and quickly find the location of the site that requires assistance. It is therefore essential that street numbers and signs be easily readable to ensure the quickest response times for a given location.

Finding 8

Due to the topography in much of the Rancho Santa Fe Fire Protection District, roadway condition, gates, angle of approach or departure, steeply sloping roadways and grades are common. In addition, combining potentially severe rainstorms and ground water retention of many areas of the District where there is expansive soil. This produces a condition wherein the moisture content of the soil is sufficient that roadways become damaged due to soil expansion and shrinkage. All weather, paved surfaces capable of supporting the imposed loads of fire apparatus are necessary to ensure access of emergency response personnel. These roadways, gates, approach angles, steep slopes, and grades can also make it

difficult for fire apparatus and other emergency vehicles to access a site. It is therefore essential that these roadway accesses be provided with proper all weather, paved surfaces, angle of approach, grades and gate access.

Finding 9

Areas in the Rancho Santa Fe Fire Protection District can have special fire prevention needs not fully covered by the provisions of the Fire Code itself. This is due to the unique topographic features, demographics, infrastructure, and local economics of the Fire District

Finding 10

Due to the steeply sloping topography in the Rancho Santa Fe Fire Protection District, the potential exists that new and future development will result in taller buildings on smaller parcels. Defining mid-rise buildings as four stories or more in height and less than from 75 feet in height modifies the application of special provisions for these buildings to all occupancies. Because of the need to mitigate the potential danger of mid-rise buildings this change is necessary. In addition, the limitations of available fire-fighting equipment, limited availability of human resources in local fire departments, and the necessity to climb vertically up flights of stairs greatly impacting the response time to reach an incident scene, it necessary to define the height of mid-rise buildings. The reduced height and built in protection will mitigate extended fire department response time and keep incidents manageable.

Finding 11

The topography of the Rancho Santa Fe Fire Protection District presents problems in delivery of emergency services, including fire protection. Hilly terrain has narrow, winding roads with little circulation, preventing rapid access and orderly evacuation. Much of these hills are covered with highly non-fire resistive natural vegetation. In addition to access and evacuation problems, the terrain makes delivery of water extremely difficult. Some hill areas are served by water tank and pump systems are subject to failure in fire, high winds, earthquake and other power failure situations.

The aforementioned problems are set forth in the 2013 California Building Code and amendments.

Finding 12

The seasonal climatic conditions during the late summer and fall create numerous serious difficulties regarding the control of and protection against fires in the Rancho Santa Fe Fire Protection District. The hot, dry weather typical of this area in summer and fall, coupled with Santa Anna winds and low humidity frequently results in wildfires that threaten or could threaten the Rancho Santa Fe Fire Protection District.

Although some code requirements, such as fire-resistive roof classification, have a direct bearing on building survival in a wildland fire situation, others, such as residential fire sprinklers, may also have a positive effect. In dry climate on low humidity days, many materials are much more easily ignited. More fires are likely to occur and any fire, once started, can expand extremely rapidly. Residential fire sprinklers can arrest a fire starting within a structure before the fire is able to spread to adjacent brush and structures.

A seasonal wind also have the potential for interfering with emergency vehicle access, delaying or making impossible fire responses, because of toppling of extensive plantings of dense chaparral, eucalyptus and confers trees. The trees are subject to uprooting in strong winds due to relatively small root bases compared to the tree itself. The aforementioned problems support the imposition of fire-protection requirements greater than those set forth in the Building Code or Fire Code.

ATTACHMENT "B"

